FINANCIAL STABILITY REPORT

11/2017

BANCO DE ESPAÑA
Eurosistema

The cut-off date of this report: 30 October 2017.

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ISSN: 1696-3520 (online)

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

The latent geopolitical tensions have not prevented the economic recovery, at the international level, from holding on its positive path. Activity has picked up in the developed and emerging economies alike (with the exception of the United Kingdom among the former). Short-term projections have not only retained their previous tone but also include upward revisions in economic growth and are accompanied by increases in confidence indices and in employment figures. And this under highly relaxed financial conditions characterised by low volatility in most asset prices, a reduction in risk premia, a rise in stock market indices (albeit with some correction to the levels in the opening months of the year), a declining trend in government debt yields and policy interest rates that are broadly accommodative. Inflation levels, in the case of the advanced economies, remain below central bank targets.

The situation of stability on financial markets has passed through to the banking sector, in particular in Europe. There, despite certain resolution actions at individual banks, no significant adjustments on markets have been observed. Indeed, bank share prices have trended even more favourably than those of overall indices in recent months. In any event, the prospect of low profitability, combined with the still-high volume of non-productive assets on bank balance sheets and with future regulatory demands, continue to arouse some uncertainty over the outlook for the banking industry.

In 2017 to date, the Spanish economy has held on the expansionary course on which it embarked four years ago, posting growth rates higher than those of the main euro area economies. Specifically, GDP is expected to have grown at a rate 0.8% in Q3 (3.1% year-on-year), on INE preliminary estimates. The sound pace of output growth is being reflected in the positive behaviour of the labour market, with a reduction in the unemployment rate to 16.4% in Q3, 2.5 pp down on a year earlier. The latest Banco de España projections, published at the end of September, envisage a continuation of the expansionary phase, although there is expected to be a moderate slowdown in the coming quarters as some of the factors driving activity since the start of the recovery lose momentum. Against this background, the uncertainty further to the independence challenge in Catalonia might translate into a lower level of activity and employment in the coming months, as is subsequently analysed in the Financial Stability Report (FSR).

In the foregoing setting, Spanish deposit institutions' consolidated assets fell by 2.8% in June 2017 compared with the same period a year earlier, owing essentially to business in Spain. Consolidated earnings in the first half of 2017 were up 19% on the same period in 2016, taking the return on equity (ROE) to 7%. It should be pointed out that these figures do not include the adverse results of Banco Popular Español whose resolution was decided by the Single Resolution Board (SRB) last June. Under the heading of business in Spain, net interest income narrowed once more, with a decline of 1.8% year-on-year, as did ROE, which stood at 5.9%.

In any event, Spanish banks' solvency (11.9% of CET1 capital) remains above the minimum regulatory level, although it has fallen by around 70 bp from its June 2016 figure, influenced by the bank resolution mentioned above. However, following the forward-looking assessment of the Spanish banking system's resilience under an adverse macroeconomic scenario, in line with that used by the IMF in the stress test in its Financial Sector

Assessment Program (FSAP), it is observed how, in aggregate terms, the Spanish banking system would be capable of maintaining solvency levels above the minimum regulatory levels required.

Nonetheless, the foregoing setting is not free from risks. The favourable conditions on financial markets may give rise to a build-up of imbalances to such an extent that, were the situation to turn around owing to the materialisation of any of those risks, be they political in nature – both at the national and international level – or of some other type, they might generate high instability.

2 Risk factors

Identified below are the main factors of risk to the stability of the Spanish financial system.

RISK FACTORS (a) **TABLE 1**

1	Persistence of the current environment of low bank profitability in which domestic business continues to shrink and the volume of non-productive assets holds at high – albeit continually declining – levels.
2	Sharp adjustment in international financial market conditions owing to geopolitical events with an impact on economic growth expectations.

SOURCE: Banco de España.

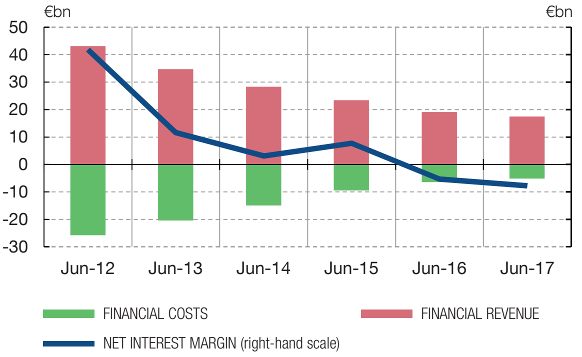
a The colour scheme in the table should be understood as follows: green denotes a risk-free situation; yellow denotes low risk; orange, medium risk; and red, high risk. The time horizon for which the foregoing risks are defined is established by the frequency of the FSR, i.e. half-yearly.

In addition to the two factors highlighted, there is another risk factor to be taken into account, namely the political tension in Catalonia and its potential repercussions for funding conditions on the capital markets and for the Spanish economy as a whole.

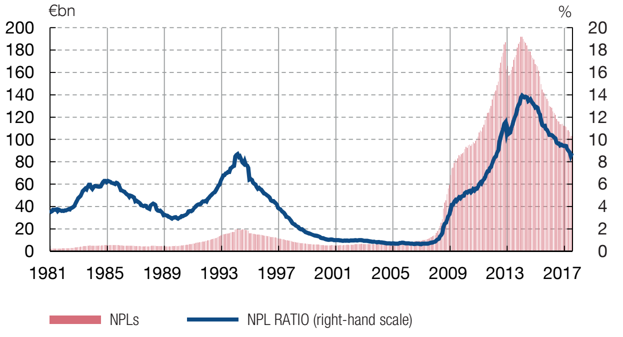
2.1 CURRENT ENVIRONMENT OF LOW BANK PROFITABILITY

The ongoing compression of the net interest margin in domestic business, as a result of the low level of interest rates with which deposit institutions are operating, significantly restricts their income-generating capacity. Chart A shows, with some perspective, how the net interest margin has trended. On the assets side, the continuous decline in income generation can be seen. On the liabilities side the pattern is very similar (containment in the cost of funds), but with increasingly less scope to withstand further cuts, since the natural limit associated with the zero rate of financing from deposits has practically been reached. As a result, the net interest margin continues to trend at historically low levels.

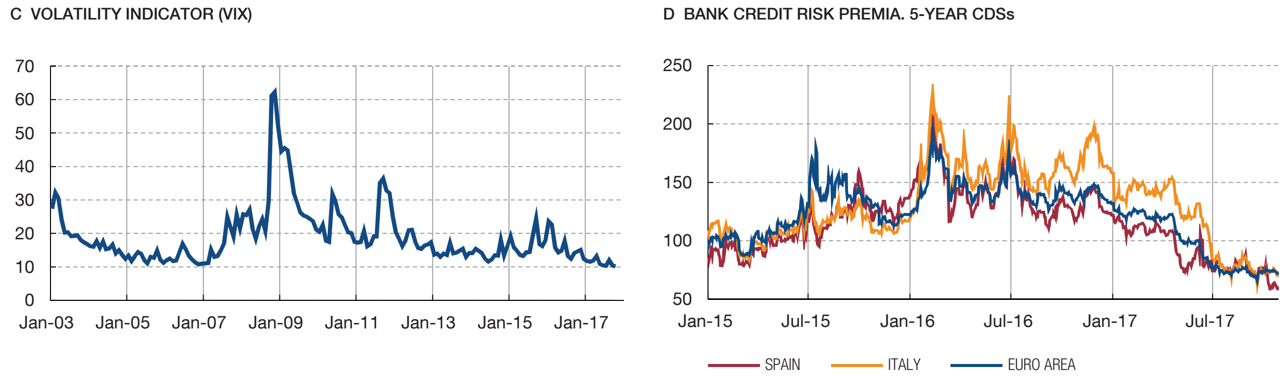
A FINANCIAL REVENUE AND COSTS AND NET INTEREST MARGIN
Business in Spain, ID



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



SOURCE: Banco de España.



C VOLATILITY INDICATOR (VIX)

D BANK CREDIT RISK PREMIA. 5-YEAR CDSs

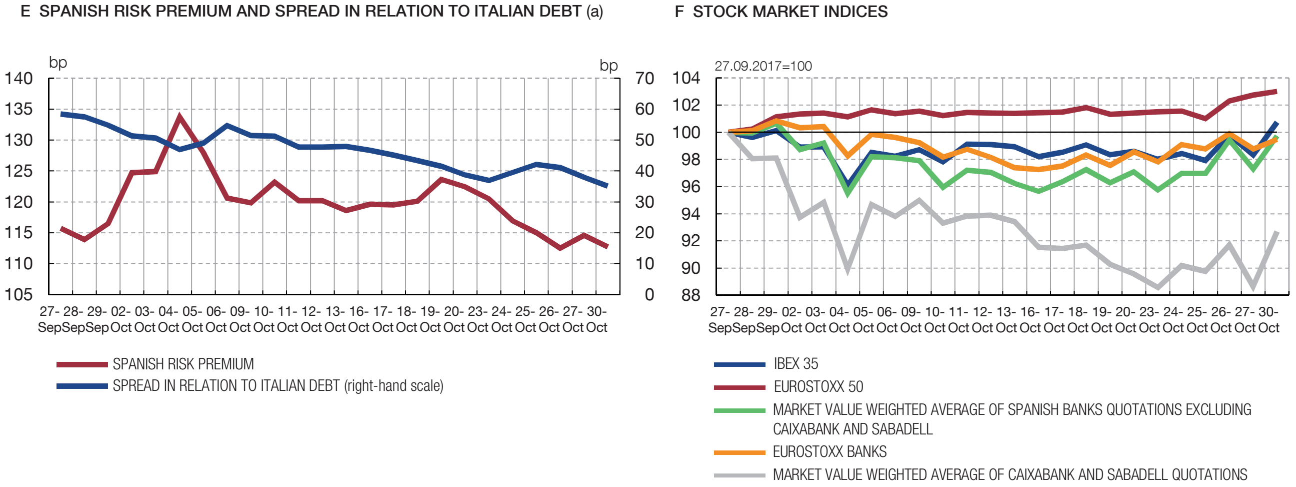
SOURCE: Datastream.

The continuing decline in the volume of business in Spain and the high level of non-productive assets on bank balance sheets are further factors of pressure on the income statement (see Chart B). In any event, emphasis should be placed on the progress made regarding the reduction in the volume of assets classified as non-performing in recent years. The sustained improvement in macroeconomic conditions, both in activity and in employment, along with active management of credit are contributing to this progressive decline in the volume of non-productive assets, which is directly reflected in the NPL ratio and in the statement of income.

2.2 CHANGE IN INTERNATIONAL FINANCIAL MARKET CONDITIONS

Admittedly, financial markets are evidencing high stability, as reflected in the low volatility and risk premium levels (see Charts C and D). But the abrupt reversal of this situation in the face of certain latent risks materialising, such as an unforeseen change in monetary policy expectations or a reassessment of investor risk appetite, might lead to a tightening of financial conditions with adverse repercussions on the financial system as a whole and with immediate effects in terms of worsening the outlook for profitability and income generation and, ultimately, on economic activity in general.

With regard to the factor of risk in Catalonia, a potential heightening, or prolongation, of the political situation might adversely impact the economic outlook and financial stability in Spain. Greater uncertainty might dent economic agents' confidence and thereby affect their spending and investment decisions, subsequently exerting a negative impact on economic activity and employment (see Box 1.1). Moreover, uncertainty and confidence problems might prompt the



E SPANISH RISK PREMIUM AND SPREAD IN RELATION TO ITALIAN DEBT (a)

F STOCK MARKET INDICES

SOURCES: Datastream and Reuters.

a The risk premium is calculated as the ten-year public debt yield spread over the related German benchmark.

tightening of financing conditions for the resident sectors as a whole. Charts E and F show the impact of the greater uncertainty created in Catalonia, in the run-up to the cut-off date for this FSR on the government debt market and on share prices.

The aforementioned risks are considered in greater detail in this FSR, seeking to show their interrelatedness and impact on the financial system, in particular on the business conducted by Spanish deposit institutions, and their potential repercussions for their profitability and their solvency position.

3 Macroprudential analysis and policy

Chapter 3, as in previous editions of the FSR, describes the macroprudential stance pursued by the Banco de España in recent months. In particular, the systemic risks map and the recent changes therein are presented, together with the policy decisions taken on the basis of the associated indicators.

1.1 External environment of the euro area

Global growth is proving more robust, especially in the short term…

Judging by the GDP growth figures for the different regions in Q2 (see Chart 1.1), the global economic recovery appears to be underpinned by a setting of expansionary monetary policies and favourable financial conditions. Indeed, activity rose significantly in the main advanced economies in 2017 Q2, with the exception of the United Kingdom, where GDP is starting to reflect the erosion of household purchasing power associated with the increase in inflation resulting from the sizeable depreciation sterling has undergone. In the emerging economies activity also rose in the first half of the year, with the greater-than-expected buoyancy of domestic demand in China, enhanced external demand in other economies and some improvement in the terms of trade for commodities producers. The latest high-frequency indicators confirm the continuity of this greater dynamism in Q3, with increases in confidence indices and in the activity and employment figures in both areas. Against this background, the short-term growth forecasts remain on a path of gradual recovery, and even evidence upward revisions. One of the main exceptions to this global trend is the United Kingdom, an important trading and financial partner of Spain. In the UK the uncertainty surrounding Brexit is restricting growth.

…in a setting of low inflation in the advanced economies,...

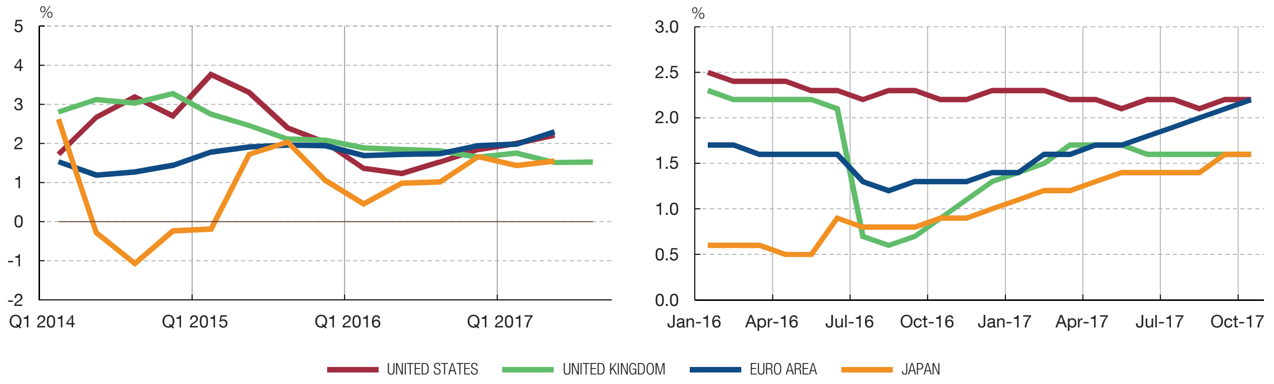
Despite the progressive increase in demand pressure in the advanced economies and the improvement in their labour markets (with unemployment rates at historical lows in some cases), inflation rates and the pace of wage growth remained very moderate, in comparison

GROWTH INDICATORS

CHART 1.1

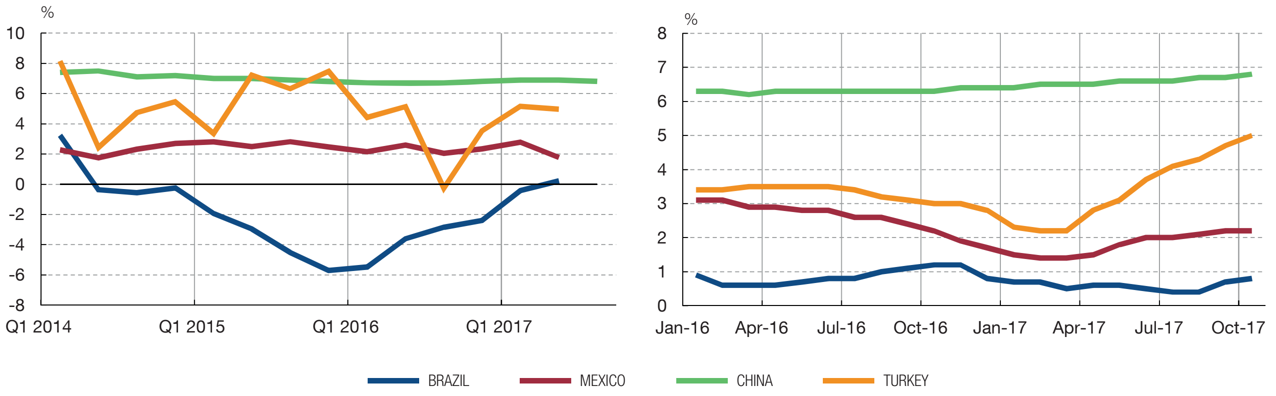
A GDP GROWTH. ADVANCED ECONOMIES

B 2017 GDP GROWTH FORECASTS. ADVANCED ECONOMIES



C GDP GROWTH. EMERGING ECONOMIES

D 2017 GDP GROWTH FORECASTS. EMERGING ECONOMIES



SOURCES: Datastream and Consensus.

...uncertainty over the economic policies in the United States and China…

with other recovery cycles (see Chart 1.2). Hence, except in the United Kingdom, where inflation stands above the Bank of England's target owing to the impact of the depreciation of sterling, inflation rates in the main advanced economies are still some distance off the attendant targets. And wage growth is lower than what low unemployment rates should infer, a fairly widespread phenomenon in recent years which might be explained by various factors (low productivity growth, low past inflation rates, a degree of under-utilisation of the labour factor, composition effects towards lower-productivity and lower-wage jobs, etc.).

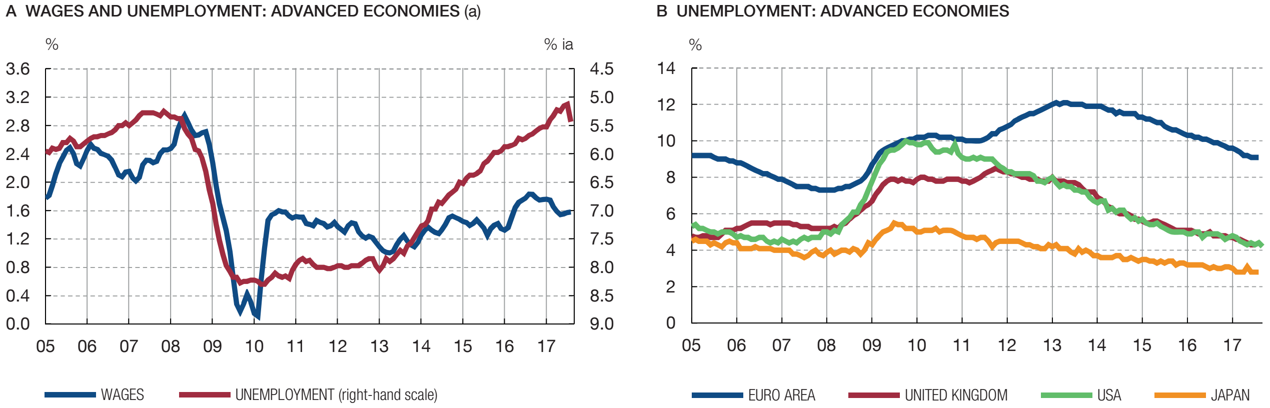
In this setting, the process of normalisation of monetary policy in the United States is following its expected course, although discrepancies remain between market expectations about rate rises and the Federal Reserve's projections. Adding to these considerations are the effects that the ongoing reduction of the Fed's balance sheet may have on financial markets, a reduction that has already been approved at the September meeting of the Federal Open Market Committee (FOMC), following the course announced at the June meeting, entailing the start of the process in October. There is greater uncertainty surrounding US fiscal policy. Although it is still the government's wish to approve a substantial fiscal stimulus programme, there is notable division in the US Congress about its design and size. Compounding this are the difficulties in raising the debt ceiling (despite the recent agreement to defer the problem a few more months), something which in the past has tended to arouse concern on the financial markets, and in approving the expenditure budget for the coming year.

… and the persistence of certain risks in several emerging economies

China, the biggest of all the emerging economies, has maintained high growth during 2017 with moderate inflation, in a setting in which both the central bank and other regulators have adopted a series of measures to encourage the reduction of debt in the economy (particularly that of State-owned corporations). Moreover, given the accumulation of international reserves and the appreciation of the renminbi in recent months, there has been an easing of some of the regulations affecting foreign exchange markets. In the coming months, Chinese economic policy will foreseeably resume its focus on the transition towards a new model of economic growth that enables the current spare capacity and excess debt to be reduced, even though it may entail lower growth rates. If this course is not followed, there is a risk of the build-up of imbalances triggering an abrupt adjustment in this economy with global repercussions.

LABOUR MARKET IN ADVANCED ECONOMIES

CHART 1.2


A WAGES AND UNEMPLOYMENT: ADVANCED ECONOMIES (a)

B UNEMPLOYMENT: ADVANCED ECONOMIES

SOURCES: Datastream and Federal Reserve.

a The variables are calculated as an average of the following economies: United States, United Kingdom, Euro Area and Japan.

Mexico has maintained its economic dynamism, but uncertainty has not been dispelled

Economic activity in Mexico during the first half of 2017 remained dynamic and the slowdown expected by analysts and financial markets as a result of the increase in uncertainty associated with potential changes in US economic policy and more restrictive fiscal and monetary policies did not materialise. Indeed, the Mexican peso has recently appreciated, to the point of reversing in full the ground it lost after last November's US presidential election. This turnaround reflects a less negative perception of the results of the renegotiation of the North American Free Trade Agreement (NAFTA) and a greater probability that in next year's presidential elections in Mexico a moderate candidate will be elected. However, the uncertainty surrounding both processes has not been dispelled and might re-emerge in the coming months.

Brazil has emerged from a deep-seated crisis and has managed to halt the deterioration in its public finances, although the political risk remains high

Brazil emerged from a deep and lengthy recession in 2017 Q1. The correction of the external imbalance, the high stability on financial markets and the rapid correction of inflation (which currently stands below the central bank's target) have been the main drivers of the recovery, as they have provided some alleviation to households' real income and have enabled the central bank to shave 600 bp off its policy rate since October last year. The deterioration in public finances has also been halted, although the situation remains complicated. The fiscal consolidation strategy led to the approval of an amendment to the Brazilian constitution to include a fiscal rule freezing real growth in public spending, but other necessary reforms (especially in pensions) have still not been approved owing to the heightened political risk. In fact, this is the most significant risk for the Brazilian economy in the coming months, as it could prompt the financial markets to react unfavourably.

The Turkish economy has fared favourably, thanks to the stimuli introduced by the government and the external environment, although the economic situation remains complex

Recent economic developments in Turkey have been relatively favourable, with robust GDP growth in the first half of the year (over 5% year-on-year), thanks to the stimulus measures introduced by the government in late 2016, to improved confidence and to the favourable external environment, with a significant pick-up in tourism and in exports to the EU. However, the situation of the Turkish economy remains complex, against a background in which activity may be expected to lose momentum as the government's stimulus measures peter out, and in which the central bank's room for manoeuvre to soften its restrictive monetary policy is limited by inflation rates that stand at over 10%.

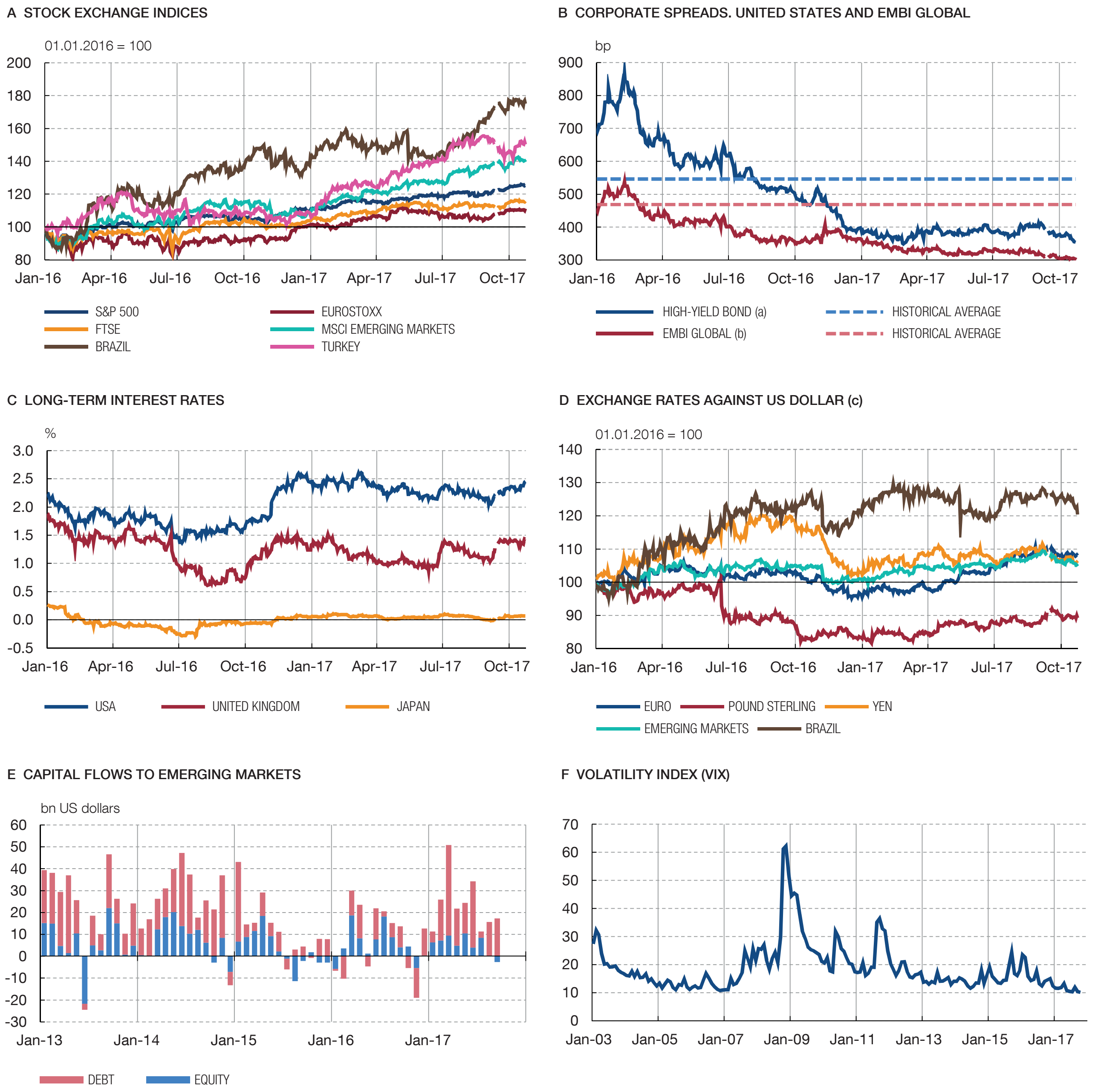
The financial markets show significant stability …

The conditions on global financial markets throughout the period analysed have been very benign. Stock markets rose (see Chart 1.3.A), reaching historical highs in the United States, and credit spreads narrowed (see Chart 1.3.B). Moreover, government debt yields (see Chart 1.3.C) in most of the developed countries moved on a declining trend during this period. The most significant movement was in the United States, where long-term interest rates stabilised at around 2%, a level close to that recorded before the presidential election. On the foreign exchange markets, in a setting in which expectations eased about the scope of the new US government's expansionary fiscal programme and about the pace of policy interest rate rises, the dollar depreciated notably against most currencies (see Chart 1.3.D), with the most noteworthy fall being that against the euro. As a result, financial conditions in the developed economies – particularly in the case of the United States – eased further and spread to many emerging markets.

Another notable characteristic of the developments on financial markets was the continuing very low volatility of the prices of most assets. This behaviour was particularly striking in the case of long-term interest rates in the United States, whose volatility stands far below the historical average recorded in cycles of official interest rate rises, such as the present one. This low volatility may be the consequence of the prospect of monetary normalisation moving at a very gradual pace, but it may also have come about owing to more persistent

INTERNATIONAL FINANCIAL MARKET INDICATORS

CHART 1.3



A STOCK EXCHANGE INDICES

B CORPORATE SPREADS. UNITED STATES AND EMBI GLOBAL

C LONG-TERM INTEREST RATES

D EXCHANGE RATES AGAINST US DOLLAR (c)

E CAPITAL FLOWS TO EMERGING MARKETS

F VOLATILITY INDEX (VIX)

SOURCES: Morgan Stanley, Datastream, BIS and IIF.

a Merrill Lynch corporate bond spread with "B" credit rating against 10-year US Treasury bond.
b The Global Emerging Markets Bond Index (EMBI) is an index developed by JP Morgan to measure the country risk of all emerging countries. It represents the spread of the sovereign debt interest rate of the emerging countries in dollars with respect to the interest rate of the 10-year US Treasury bonds.
c Values over 100 show depreciations of the dollar with respect to the 1st of January of 2016.

factors such as the change in market structure towards agents with passive investment strategies and to the emergence of products with which volatility can be negotiated and of new instruments that provide for the implementation of investment strategies that opt to keep volatility low in the medium term.

In the case of the emerging markets, the context of low volatility and appetite for risk boosted portfolio capital inflows (see Chart 1.3.E), the appreciation of currencies, further declines in sovereign spreads (in some cases to levels close to historical lows) and a surge in stock market prices, especially in Latin America. These favourable conditions also spread to the primary markets, and were felt both in issuance volume (in the year to mid-September 2017 placements were 25% up) and in the type of issuers, with countries that had hitherto not gained access to the market.

… though it is difficult to identify the factors behind these highly favourable developments

These benign market conditions pose the question as to whether market sentiment is based solely on economic fundamentals or if there might also be some degree of risk complacency, motivated by yield search in an environment of very low interest rates. In principle, economic indicators appear to have accompanied market trends and this would point to the market assessment being sound. Nonetheless, these conditions would not be altogether consistent with the high global political uncertainty and the rise in geopolitical tensions in some regions, along with the increase in political risk and a worse assessment of certain emerging economies by rating agencies.

Indeed, some market segments might be susceptible to abrupt changes in their valuations

Against this background, a reassessment of the effects of political uncertainty might trigger marked changes in asset prices and, thereby, an increase both in long-term interest rates and in their volatility (see Chart 1.3.F). Likewise, a scant reaction by financial conditions to the progressive normalisation of monetary policy in the United States might lead to a more intensive rise in interest rates.

The effects of some of the scenarios might impact those more vulnerable segments where there is high debt, as is the case with some companies with a low credit rating in the United States. As to the emerging economies, valuations appear less out of kilter, although debt in the business sector continues to increase (above all in Asia and, in particular, at Chinese real estate developers) and greater penetration by foreign investors is observed in national sovereign debt markets.

Finally, the persistence over a long period of low levels of volatility might give rise to a build-up of imbalances in the financial sector, stemming basically from a greater appetite for risk and impaired quality of measurement of the risks assumed through the habitual models based on volatility indices. In this respect, it is noteworthy that an increase in the price of hedging against extreme events or a rise in volatility has been observed.

1.2 Financial markets in the euro area and in Spain

Price volatility and credit risk premia are historically low, with the latter having declined further, especially in the case of banks

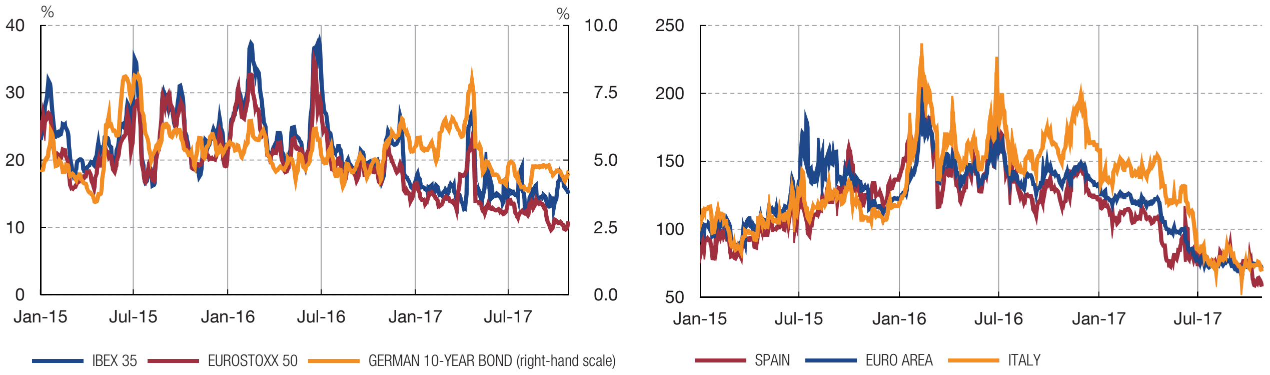
In line with the rest of the main international financial markets, price volatility on the euro area markets has held in recent months at historically low levels (see Chart 1.4.A). Credit risk premia have also been at low levels, falling further in some cases such as, in particular, that of securities issued by banks, without any episodes of contagion having been observed following the resolutions applied to certain institutions in the area that were in a position of weakness (see Chart 1.4.B). Contributing to these favourable developments have been the global factors mentioned in the previous section, other more specific factors in Europe, and, in particular, the diminishing political uncertainty and the improvement in macroeconomic expectations and in the outlook for the banking sector.

Euro area stock market indices fell back in the period to August and rebounded subsequently, with no discernible signs of overvaluation. The performance of the banking sector proved to be comparatively better

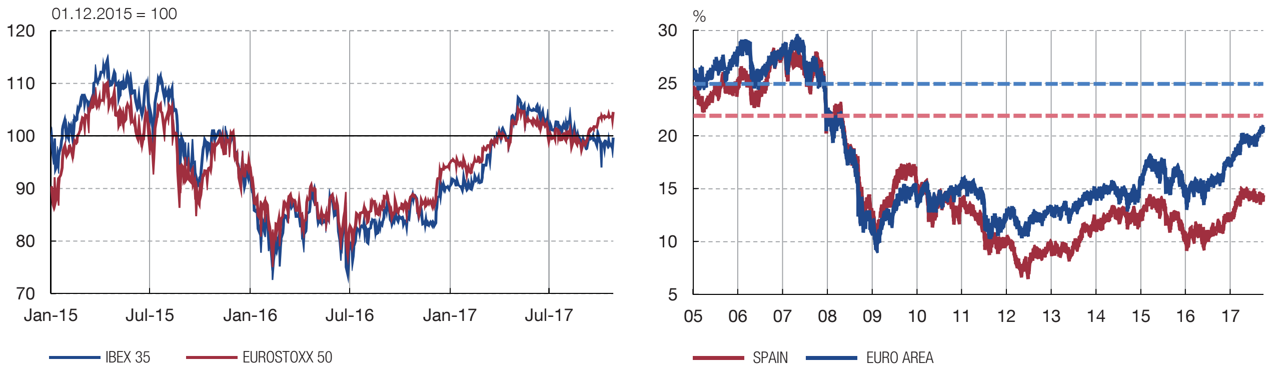
Stock market overall indices, having moved on a rising path from the summer of 2016 to May this year, evidenced moderate declines thereafter until late August which were subsequently reversed (as a result, the Euro Stoxx 50 stood 2.2% above its end-April level at the cut-off date for this FSR - see Chart 1.4.C). The more unfavourable performance of euro area corporate shares compared with that of US companies (the S&P 500 climbed 7.4% during the same period) might be linked, at least in part, to the appreciation of the euro insofar as that might have an adverse impact on euro area companies' profits. Comparing prices with cyclically adjusted earnings reveals ratios below pre-crisis levels (see Chart 1.4.D) and their historical averages, which is compatible with there being no

FINANCIAL MARKETS IN THE EURO AREA

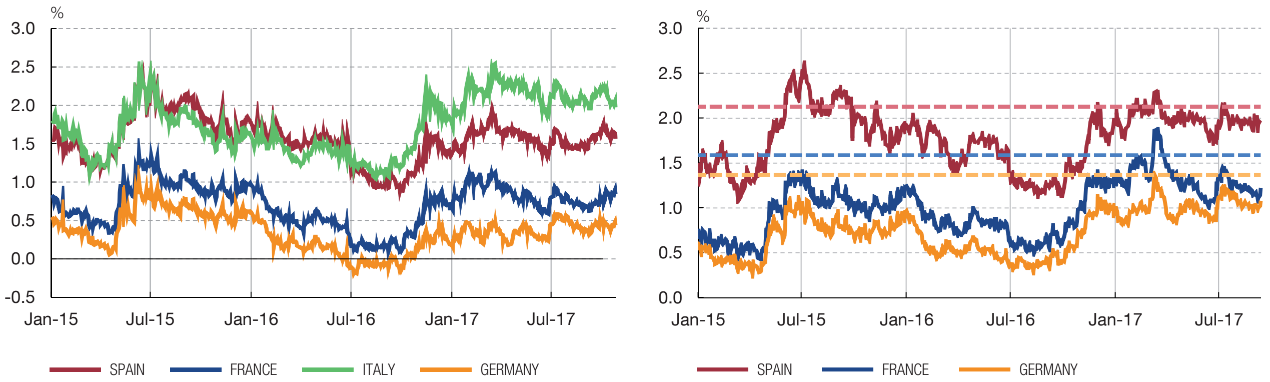
CHART 1.4


A IMPLIED VOLATILITY (a)

B BANK CREDIT RISK PREMIA. 5-YEAR CDSs


C STOCK EXCHANGE INDICES

D CYCLICALLY ADJUSTED PER (b)


E SOVEREIGN DEBT 10-YEAR YIELD

F YIELD CURVE SLOPE (c)

SOURCES: Datastream and Banco de España.

a 5-day moving average.
b The cyclically adjusted PER is calculated as the ratio of share price to the 10-year moving average of earnings. The dotted lines represent the historical averages of the series from 02.01.2005.
c Difference between the 10-year and the 3-month rate. The dotted lines represent the historical averages of the series from 01.01.2001.

generalised overvaluations on the euro area stock exchanges. The stock market prices of European banks have trended somewhat more favourably than the overall indices, in line with events on the fixed-income markets (the Euro Stoxx banks index rose 3.4%).

Long-term government debt yields and the slope of the yield curves are at historically low levels

In the case of government debt, 10-year interest rates have held relatively stable in recent months at historically low levels, and generally no significant changes in yield spreads over the German benchmark have been observed (see Chart 1.4.E). That reflects the market’s expectation that an accommodative monetary policy will be maintained over a prolonged period. In line with these expectations, the slope of the yield curves on these markets is at lower values than the historical average (see Chart 1.4.F), although that might also reflect an abnormally low term premium.

The performance of Spanish financial markets was comparatively less favourable, partly as a result of the uncertainty generated by the political tensions in Catalonia

The performance of Spanish financial markets was generally in line with that of other euro area markets, although the behaviour of prices has tended to be less favourable, especially during recent weeks, which partly reflects the uncertainty generated by the political tensions in Catalonia. Thus, from late August to the cut-off date for this FSR the Ibex35 had increased by only 1.4% (compared with the 7% rise in the Euro Stoxx 50) while the Spanish 10-year government debt yield spread over the German benchmark rose by 4 bp to 113 bp.

Despite the current favourable conditions, some risks of price corrections on financial markets persist

In short, the euro area financial markets are showing high stability, as reflected in the low levels of volatility and of risk premia. However, as on other international markets, this situation might be abruptly reversed in the event of specific geopolitical risks materialising, or of investors reassessing their appetite for risk. That would lead to a tightening of financial conditions that might have adverse repercussions for financial stability. In addition to global risk factors, the Spanish financial markets are exposed to other specific risks and, in particular, to those relating to political tensions in Catalonia.

1.3 The macroeconomic environment in the euro area and in Spain

The pace of euro area GDP is increasing

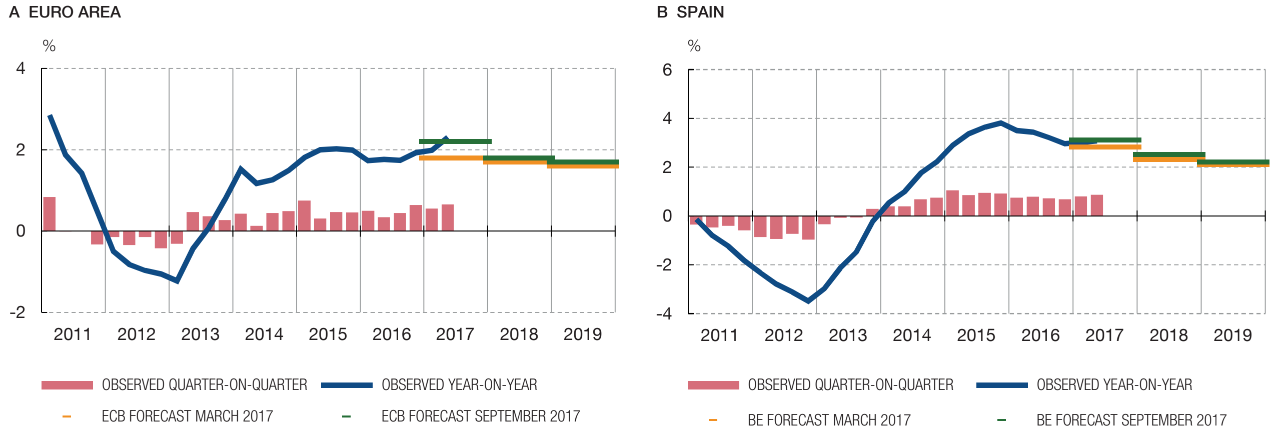
During the first half of 2017, the dynamism of economic activity in the euro area increased, to a year-on-year rate of 2.3% in Q2 (see Chart 1.5.A), while becoming more generalised across sectors and countries. This favourable behaviour led to an upward revision of the ECB's growth forecasts for the current year, which stood in September (the date of the latest available projections) at 2.2%, and at 1.8% and 1.7%, respectively, for 2018 and 2019. The continuing recovery in the euro area economy over the next two years is expected to be driven by domestic demand (against a background of highly favourable financial conditions, further progress in the deleveraging of all sectors and the sound behaviour of the labour market) and by a likewise positive contribution of exports, underpinned by the foreseeable pick-up in global demand and despite the recent appreciation of the euro.

Notwithstanding, inflation rates continue to stand below the ECB's objective

Despite this greater recent dynamism in activity, the year-on-year growth rate of the HICP has continued to fluctuate around 1.5% in recent months (1.5% in September), although its course continued to be notably affected by base effects derived from the movements in oil prices. These same developments may temporarily lead in the coming months to

GDP GROWTH AND FORECASTS

CHART 1.5



SOURCES: INE, Eurostat and Banco de España.

figures even below 1%. Excluding the least stable components (energy and unprocessed food), the core measure of inflation rose slightly from 0.8% in March 2017 to 1.3% in September. Nonetheless, the appreciation of the euro and the more-moderate-than-expected behaviour of domestic costs led the ECB to revise its inflation forecast for the coming years slightly downwards, to 1.2% and 1.5%, respectively, in 2018 and 2019. The inflation expectations implicit in market-traded asset prices also continue to show levels below the ECB objective.

The Eurosystem has retained all its conventional and non-conventional expansionary measures although it announced a reduction in the volume of monthly purchases from January 2018

Against this backdrop, the ECB Governing Council has in recent months retained its expansionary monetary policy stance, considering that for the economic recovery to firm in the area, which is needed to attain the inflation objectives, the maintenance of accommodative monetary conditions continues to be required over a prolonged period and at least until a sustained adjustment in the inflation path consistent with the medium-term reference, of a rate below or close to 2%, is observed. At its meeting of 26 October, the Governing Council approved an extension of its asset purchase programme for nine months to September 2018, although with a lower amount purchases (€30 billion per month, as opposed to the current amount of €60 billion), applicable from January 2018.

In this context, the euro area remains subject to certain macroeconomic and financial risks

The ECB's maintenance of accommodative monetary conditions, along with progress in correcting imbalances within the area and the global economic recovery, should prompt the more dynamic behaviour of prices and costs, thereby boosting inflation rates upwards in a sustained fashion and providing for a progressive normalisation of monetary and financial conditions in the euro area. However, this central scenario continues to be subject to certain risks. These relate, first, to the robustness of the economic expansion (at the European and international levels), in a setting in which potential growth has been revised to a lesser extent than its short-term dynamism; and further, to the potentially adverse consequences for financial stability of a prolonged scenario of lax financial conditions, which might lead to agents incurring excessive debt.

Spanish GDP continued to show notable dynamism, which is expected to continue in the coming quarters, albeit with some easing in pace

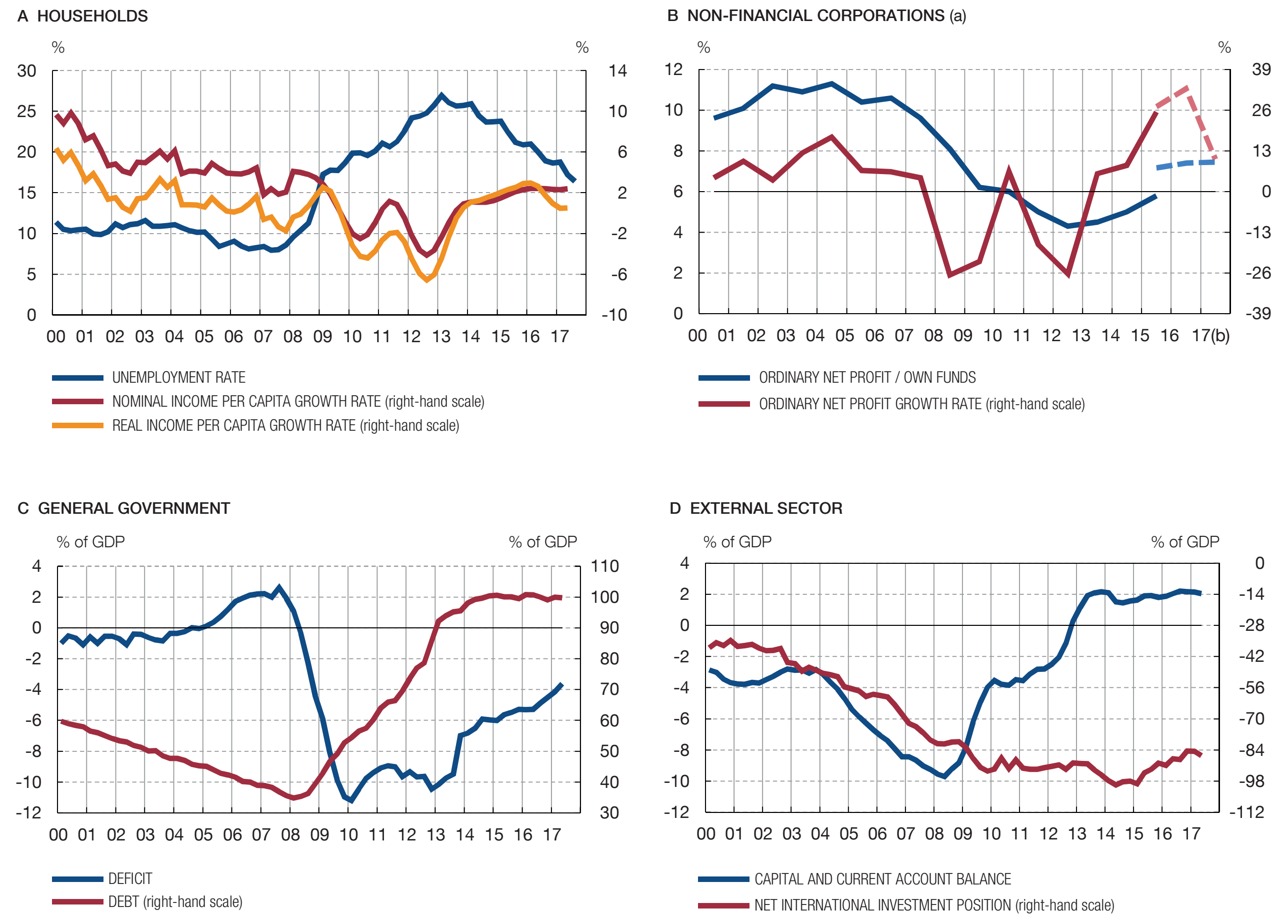
In 2017 to date, the Spanish economy has held on the expansionary course initiated four years ago, posting growth rates higher than those of the main euro area economies. Specifically, GDP is expected to have grown at a rate of 0.8% in Q3 (3.1% year-on-year), on INE preliminary estimates. The latest Banco de España projections, published at the end of September, envisage a continuation of the expansionary phase, although there is expected to be a moderate slowdown in the coming quarters as some of the factors driving activity since the start of the recovery lose momentum, such as the strong decline in oil prices from 2014 to 2016, the expansionary stance of budgetary policy in 2015 and 2016, and the materialisation in the early stages of the recovery of the spending and investment decisions that had been postponed when uncertainty during the crisis had been at a height. Against this background, the uncertainty further to the independence challenge in Catalonia might translate into a lower level of activity and employment in the coming months.

The inflation rate will continue to be greatly affected in the short term by the base effects of the movements in oil prices, with further declines until the opening months of 2018 and a mild pick-up subsequently

Turning to prices, following the rise in inflation in the opening months of the year – prompted by the behaviour of oil prices – the year-on-year rate of change of the Spanish CPI fell from 2.3% in March 2017 to 1.8% in September (the latest available figure). Price developments in the coming quarters will continue to be highly influenced by the trajectory of the energy component, which will prompt a further decline in the overall inflation rate until the opening months of 2018. Then, a mild rising trend is expected to come about further to the foreseeable gradual reduction in the economy's degree of slack.

SPANISH ECONOMY. NON-FINANCIAL SECTORS AND EXTERNAL SECTOR

CHART 1.6



SOURCES: INE and Banco de España.

a The continuous lines correspond to the data of the Integrated Central Balance Sheet Data Office Survey (CBI) and the discontinued lines to those of the Central Balance Sheet Data Office Quarterly Survey (CBT) excluding energy.
b First half of 2017.

The financial position of households and non-financial corporations continued to improve...

The favourable macroeconomic environment continued to be conducive to an improvement in the financial position of Spanish households and non-financial corporations. Against the background of a moderate increase in new lending business, the aggregate outstanding balance of loans granted to the aforementioned sectors has continued to fall to date in 2017. Incomes, by contrast, moved on an expanding trend, in line with the increase in economic activity (see Charts 1.6.A and 1.6.B). In the case of households, the unemployment rate dipped to 16.4% in 2017 Q3, 2.5 pp down on the same period a year earlier, and nominal gross disposable income per capita continued to grow at a rate of slightly over 2%. Non-financial corporations likewise saw a significant increase in their ordinary profit in the first half of the current year (of 10.3% compared with the same period a year earlier, in the case of the companies reporting to the Banco de España Central Balance Sheet Data Office Quarterly Survey).[1] This increase has come about following the previous rise of 33% in 2016 as a whole, meaning that the ordinary return on equity for these corporations currently stands at around 9.4%. As a result, the debt and debt burden ratios of households and corporations continued to decline in the first half of 2017, while total net household wealth as a percentage of GDP rose by almost 9 pp over that same period.

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[1] Excluding those in the energy sector, whose atypical behaviour and high weight in the quarterly sample distort the aggregate results.

… as it did in the case of general government and the external sector, although their debt levels are still high

The general government budget deficit as a percentage of GDP continued to decline (see Chart 1.6.C). Given the positive effect on public finances arising from the increase in activity, the current fiscal policy stance may be qualified as neutral, which is in contrast to its expansionary behaviour in the two previous years. However, the level of public debt relative to GDP remains high, at around 100%, evidencing the need to make additional budgetary consolidation efforts.

The still-high public sector debt contributes to the Spanish economy's international net financial position being notably in debit. Balance of payments surpluses on the current and capital accounts (of around 2% of GDP) since mid-2013 have provided for a reduction of over 10 pp in the net debit position from its peak during the crisis. That said, the net debit position was still at 86.8% of GDP in 2017 Q2 (the latest available data).

The recovery in housing market prices and volumes continues

The pick-up in demand on the housing market continued, with the growth rate of house sales in double figures in the first half of 2017, spurred by the improved economic situation and low borrowing costs. At the same time, the supply of new housing also increased, albeit from still-very-low levels (74,000 new housing approvals in the 12 months to July 2017, the latest available figures). Against this background, prices rose by 5.6% in Q2 compared with the same period a year earlier, according to INE's average house price statistics, slightly up on the figure of 4.5% posted six months earlier. Price rises were greater in the main cities. However, at the aggregate level, although there has been a 16% increase from the lows in early 2014, current prices are, on average, still 27% below their 2007 peak.

Overall, the situation has improved, although the still-high debt of the general government sector and of the nation continue to be a factor of vulnerability ahead of potential adverse shocks

Overall, the financial macroeconomic situation of the different sectors in Spain has tended to improve as a result of the greater pace of activity and employment, and of the ongoing correction of the imbalances built up previously. In any event, the still-high debt of the general government sector and of the economy as a whole vis-à-vis the external sector are two significant factors of fragility of the Spanish economy in the face of potentially less positive developments than expected in future activity and ahead of a possible rise in borrowing costs.

In the current circumstances, the risks to the macroeconomic outlook in Spain and to financial markets continue to stem partly from an international context in which certain geopolitical uncertainties, Brexit and the developments in some large advanced and non-advanced economies are still liable to trigger adverse effects on the pace of the global recovery. Likewise, the notable calm and low risk premia on global financial markets might be reversed, perhaps sharply so, with potentially negative effects on global economic growth.

Nonetheless, the main uncertainty at present relates to developments in the situation in Catalonia, which might affect confidence, risk perception and national economic agents' consumption and investment decisions, as well as prompting a tightening of financing conditions, with potentially significant economic and financial effects (see Box 1.1).

In its macroeconomic projections for the Spanish economy (2017-2019), the Banco de España indicated, at the end of September, that the political tensions in Catalonia might potentially affect agents' confidence and their spending decisions and financing conditions.[1] These tensions might prompt a revision of economic agents' consumption, investment and financing decisions, with potentially significant effects on economic growth and financial stability.

Indeed, there are numerous channels through which higher uncertainty may affect economic activity. In the case of households, a loss of confidence about the future scenario may encourage them to assign a greater percentage of their income to precautionary saving, thereby reducing their consumption and postponing their decisions on consumer durables and house purchases. Similarly, against a background of high uncertainty, companies might delay undertaking new investment projects, given the greater complexity for the associated cost/benefit planning, and put back hiring decisions. These investment and consumption decisions may become extensive to both resident and non-resident agents, adversely affecting variables such as tourism and foreign investment. The evidence available shows that, in a setting of greater uncertainty, financial corporations tend

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[1] See: https://www.bde.es/f/webbde/SES/AnalisisEconomico/AnalisisEconomico/ProyeccionesMacroeconomicas/ficheros/be1703-proye.pdf. The Banco de España will update and publish its macroeconomic projections in December in the joint exercise with the Eurosystem to be conducted in the final quarter of the year.

Chart A
HYPOTHETICAL SCENARIOS OF CHANGES IN SYNTHETIC INDICATOR OF UNCERTAINTY: FINANCIAL MARKET MEASUREMENTS

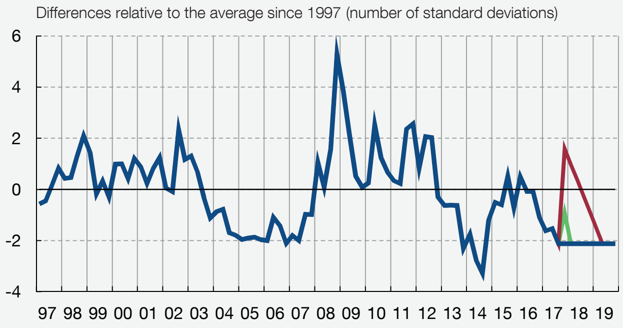
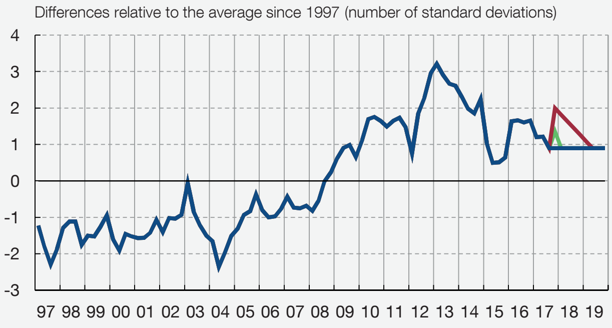


Chart B
HYPOTHETICAL SCENARIOS OF CHANGES IN SYNTHETIC INDICATOR OF UNCERTAINTY OVER ECONOMIC POLICIES AND THE POLITICAL SITUATION



BASELINE (a) SCENARIO 1 SCENARIO 2

Chart C
HYPOTHETICAL SCENARIOS OF CHANGES IN SYNTHETIC INDICATOR OF UNCERTAINTY BASED ON MEASURES OF DISAGREEMENT BETWEEN ECONOMIC AGENTS

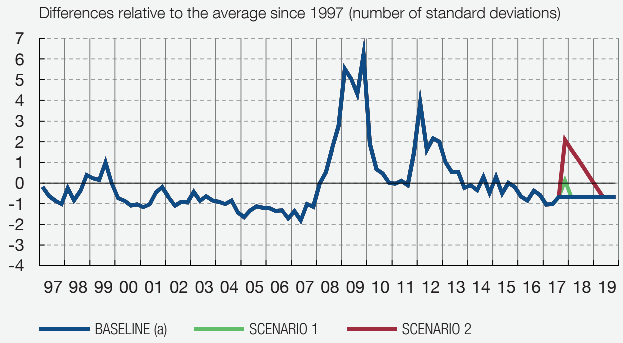
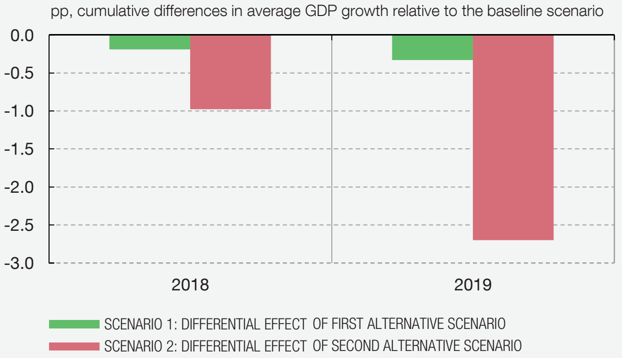


Chart D
CUMULATIVE EFFECTS (b) ON REAL GDP OF THE HYPOTHETICAL SCENARIOS OF AN INCREASE IN UNCERTAINTY



SOURCE: Banco de España.

a In the baseline scenario it is assumed that uncertainty throughout the entire projection horizon holds at the level observed in 2017 Q3, i.e. it does not increase. In scenario 1 it is assumed that the level of uncertainty increases temporarily during 2017 Q4 and returns in 2018 Q1 to the 2017 Q3 level. This increase is calibrated on the basis of the statistical distribution of the uncertainty measures considered, which increase by a magnitude that is in the 90th percentile of each series (i.e. only 10% of the historical changes, at the level of each indicator, are higher than those assumed). In scenario 2 an increase in uncertainty in 2017 Q4 equivalent to that recorded in the historical episode marking the sharpest rise is assumed, under the assumption that following this initial shock the level of the uncertainty indicators diminishes in a linear fashion over the simulation horizon.

b The cumulative effect is calculated as the difference in the rates of change between 2019 and 2017 of scenario 1 (or 2) compared with the baseline scenario. Accordingly, the 2019 effect includes that corresponding to 2018.

to restrict the extension of credit for specific investment projects by households and firms. On the financial markets, greater uncertainty may be accompanied by increases in the volatility of asset prices, along with higher risk premia, with the subsequent impact on the financing costs for the economy as a whole.

To date, the effect of the political tensions in Catalonia have been visible especially on the financial markets, where, since early October, stock market volatility has increased somewhat. The Spanish stock market index has performed more unfavourably than that of the Euro Stoxx 50, in particular owing to the negative trend of bank share prices and, especially, those of institutions headquartered in Catalonia. Subsequent developments have tended to partially normalise the situation. Overall, whereas the Euro Stoxx 50 increased by 7% from end-August to 30 October, the Spanish stock exchange rose by 1.4%. On the sovereign debt markets volatility was lower, with the Spanish 10-year bond yield spread over the related German bond initially widening and that relative to the Italian benchmark narrowing, although in both cases to a minor extent, the widening of the spread over the German bond having subsequently been reversed, meaning that in late October it stood at similar levels to those observed before the rise in political tensions that began in September. Regarding the bonds issued by the Catalan autonomous community, their yield spread over Spanish Treasury bonds[2] stands at similar levels to those as of end-August, around 320 basis points, meaning that the increase observed in early October has been reversed. In any event, the Catalan autonomous government has not issued long-term securities since October 2012; the central government has since then been covering the former's financing needs in this segment with bilateral loans (under the autonomous liquidity funds arrangement). As a result, as of mid-2017 almost 70% of the Catalan autonomous community's public debt was in State hands.

The conjunctural information on economic activity in the present quarter in Catalonia and in Spain as a whole is still very scant. Indeed, the most up-to-date leading economic indicators available still refer essentially to the end of the previous quarter.

In the medium term, the macroeconomic impact of the current situation of uncertainty will depend both on its intensity and its duration. To illustrate the possible order of magnitude of this impact, several hypothetical scenarios are put forward below, based on past episodes in which significant increases in uncertainty were observed. Specifically, these scenarios incorporate different assumptions about the increase in and the duration of uncertainty. In this connection, use is made of a range of measures approximating the level and the change in the degree of uncertainty in the Spanish economy, and which include information from a broad set of indicators relating to the financial markets and to the situation of and outlook for the economy, and also on economic policies and on the country's political situation.[3] The information is drawn together in three synthetic indicators, which are used in turn to calibrate the hypothetical scenarios of a change in uncertainty and to estimate its potential impact on economic activity through the use of statistical models.[4]

The simulations performed depart from a baseline scenario in which it is assumed that uncertainty, in the absence of the recent political episodes in Catalonia, would have held at the levels observed in 2017 Q3 (see Charts A, B and C). Taking this baseline scenario as a reference, two alternative scenarios are considered. In the first, it is assumed that the level of aggregate risk increases temporarily during 2017 Q4 and returns in 2018 Q1 to the baseline scenario level. This temporary increase is calibrated on the basis of the statistical distribution of the uncertainty measures considered, which it is assumed will increase in 2017 Q4 by a magnitude that is situated in the 90th percentile of each series (i.e. only 10% of the historical changes, at the level of each indicator, are greater than those assumed) (green line in Charts A, B and C). In the second scenario a more severe and prolonged risk is simulated, consisting of assuming an increase in the indicators in 2017 Q4 equivalent to that recorded in the preceding historical episode where the rise was sharpest, also at the level of each indicator (red line in Charts A, B and C). Specifically, for the uncertainty measures based on financial market indicators and on those relating to the situation and future course of economic activity, this means replicating in 2017 Q4 the increases posted by the measures during the initial stages of the recent global financial crisis. In the case of the uncertainty measure in respect of economic policies and the political situation, the initial shock simulated is equivalent to the increase recorded by this indicator in 2012 Q2, which marked the launch of the programme for the recapitalisation and restructuring of the banking sector signed by the Spanish Government and the European authorities. After this initial shock, it is assumed that the level of the indicators converges in a linear fashion on the baseline scenario over the horizon of the simulation.

Chart D summarises GDP developments in the two foregoing hypothetical scenarios, compared with that which would be observed in the baseline scenario, over the next two years. In the first scenario (of temporary and bounded heightening of uncertainty), the cumulative loss in GDP to end-2019 would be 0.3 pp, essentially reflecting lower growth in the remainder of this year and the start of the following year. In the most severe and prolonged scenario of tensions, GDP would fall in cumulative terms by somewhat more than 2.5 pp between end-2017 and 2019. This latter scenario would entail a reduction of almost 60% of the growth considered in the baseline scenario for the Spanish economy as a whole and a recession in the Catalan economy for much of the horizon analysed, reflecting the fact that the uncertainty shock considered in the previous years would affect this autonomous community more sharply.

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[2] This spread has been calculated as the average Asset Swap Spread (ASS) of all Catalan autonomous community bonds in circulation with a residual maturity of over one year, less the average ASS of Treasury-issued bonds.

[3] See Gil, María, Pérez, Javier J. and Urtasun, Alberto (2017), "Macroeconomic uncertainty: measurement and impact on the Spanish economy", Analytical Articles, Banco de España, 2 February

[4] The models are those used in the article mentioned in footnote 3. They are SVAR-type models, in which the uncertainty measured by the synthetic indicators of financial markets, of economic policy disagreement and uncertainty, real GDP, the Spanish sovereign debt spread over the German bond and a price index are included as endogenous variables, and the volatility of the Euro Stoxx 50, the *Economic Policy Uncertainty Index* for the EU as a whole and a synthetic indicator of European uncertainty (calculated in a similar way to the synthetic indices for Spain) as exogenous variables.

These estimations should be viewed with caution and interpreted as merely illustrative and provisional, given that they depend on the assumptions used when constructing the different scenarios, and on the use of a specific statistical tool. In any event, they serve to evidence the significant economic risks and costs of the situation caused by the independence initiatives in Catalonia. A prompt return to normal could mitigate the incidence of the risks for the economy analysed in this box. Indeed, the information relating to the days leading up to the publication of this FSR indicates a certain moderation in the degree of tension implicit in financial asset prices, coinciding with the adoption, on 27 October, by the Senate in plenary session of the Resolution authorising the application of certain measures in relation to the Catalan government under Article 155 of the Constitution.

This chapter analyses in detail the situation of Spanish deposit institutions and the risks they face in the conduct of their business. In 2017 H1 the consolidated total assets of Spanish deposit institutions decreased by 2.8% year-on-year, due mainly to the behaviour of business in Spain, which continued to decline, albeit at a more moderate pace. Credit to the resident private sector in Spain contracted by 3.2% with respect to the same month of the previous year, and non-performing loans decreased by 13.1%, making for a cumulative fall of 45.8% since December 2013. As a result, the non-performing loans ratio of the resident private sector in Spain decreased to 8.6% in July 2017, down 0.9 pp from a year earlier.

In the first six months of 2017, institutions as a whole posted more than €3,800 million of consolidated losses attributable to the parent. Such a negative performance resulted from the more than €12 billion of losses posted by Banco Popular Español after it was resolved by the SRB in June. Had it not been for this, Spanish deposit institutions would have recorded profits of more than €8.9 billion in the first half of this year. In terms of solvency, the CET1 ratio decreased slightly to 11.9% at June 2017 largely for the reason stated above.

2.1 Banking risks

2.1.1 CREDIT RISK

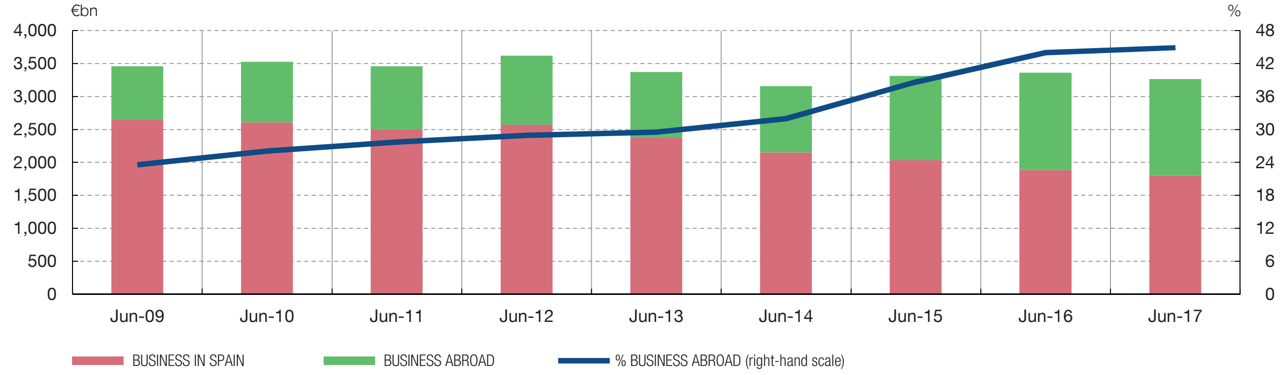
In June 2017 total assets decreased by 2.8% year-on-year due to the lower activity both in Spain (–4.4%) and abroad (–0.8%)

International exposure

The consolidated total assets of Spanish deposit institutions, which include both business in Spain and that conducted abroad through subsidiaries and branches, stood at €3,569 billion in June 2017 (see Annex 1), down 2.8% from a year earlier. This decrease resulted from the behaviour of business both in Spain and abroad, the latter being influenced by the appreciation of the euro against the main currencies of the countries in which Spanish institutions carry on their international business. The total financial assets of business in Spain decreased by 4.4% in June 2017 compared with the same month of the previous year, while the total financial assets of business abroad decreased by 0.8% (see Chart 2.1). Thus the share of financial assets abroad in consolidated total assets increased to 44.9% in June 2017, illustrating the diversification of the Spanish banking system.

INTERNATIONAL EXPOSURE. FINANCIAL ASSETS (a)
Deposit institutions

CHART 2.1



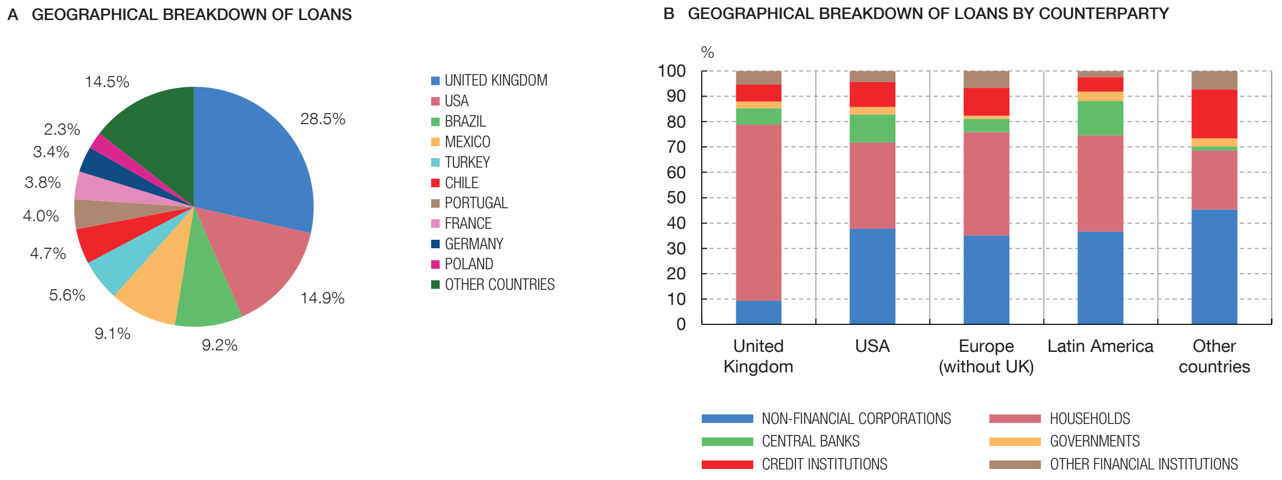
SOURCE: Banco de España.

a Total financial assets include derivatives, equity instruments, debt securities, and loans and advances, and the distribution between business in Spain and business abroad is based on this magnitude.

INTERNATIONAL EXPOSURE. GEOGRAPHICAL BREAKDOWN OF LOANS

CHART 2.2

Deposits institutions. June 2017



SOURCE: Banco de España.

By country, the most notable exposures are to the United Kingdom, the United States and Latin America, although the distribution by type of borrower differs across countries

Chart 2.2.A shows the geographical breakdown of the credit portfolio of banks in their business abroad. It can be seen in the chart that these exposures are concentrated mainly in Europe and most notably in the United Kingdom, which accounts for 28.5% of total exposures, in the United States (14.9% of the total) and in Latin America (23%). The breakdown by type of borrower (see Chart 2.2.B) differs significantly across countries. Thus, whereas in the United Kingdom around 70% of lending is to households, in the rest of Europe, the United States and Latin America the proportions of lending to non-financial corporations and to households are more even, with the percentages ranging from 30% to 40%.

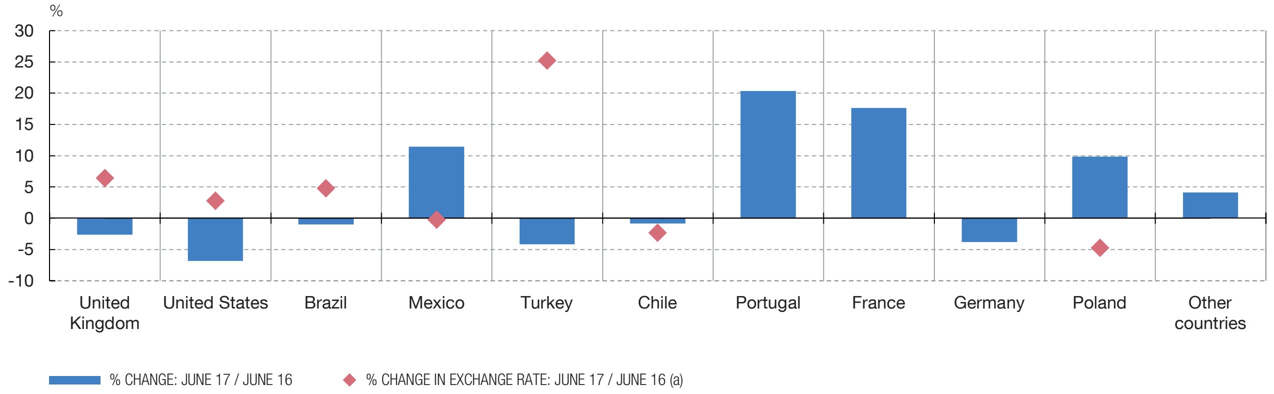
The fall in lending abroad was significantly influenced by the behaviour of exchange rates (widespread appreciation of the euro)

Between June 2016 and June 2017 the financial assets of Spanish banks in their business abroad were significantly affected by the behaviour of the euro exchange rate. In particular, Chart 2.3 shows that the appreciation of the euro against the pound sterling (6.4%) helped to explain the decrease of 2.6% in the volume of loans in the United Kingdom. Similarly, the decrease of 6.9% in loans in the United States was accompanied by a 2.8% appreciation of the euro against the dollar. Also in Brazil and Turkey the appreciation of the euro against the Brazilian real and the Turkish lira (4.7% and 25.2% respectively) contributed to explaining the adverse trend of loans in these countries, which contracted at 1% and 4.2%, respectively, after converting their value to euro. In Mexico the volume of loans increased notably, with a rise of 11.4% against a background of slight depreciation of 0.2% of the euro against the Mexican peso.

In any event, it should be noted that the activity of Spanish deposit institutions abroad is conducted through subsidiaries under financial independence criteria. Furthermore, as shown in Chart 2.4.A, these activities take place mainly in the local currency of the countries in which they are located. In particular, in June 2017 83.8% of the financial assets abroad were denominated in the local currency of the countries in which these assets were located. By country, the activities located in the United States (94%), Brazil (97%) and, on average, the euro area countries (95%) exhibited a higher proportion of denomination in local currency. In the United Kingdom, Mexico and Chile, the activities in local currency represented around 80% of total financial assets. Finally, in Turkey the share of business denominated in Turkish lira accounted for 60% of the financial assets of Spanish banks in this country (see Chart 2.4.B).

INTERNATIONAL EXPOSURE. LOANS
Deposit institutions. Breakdown by residence of counterparty

CHART 2.3

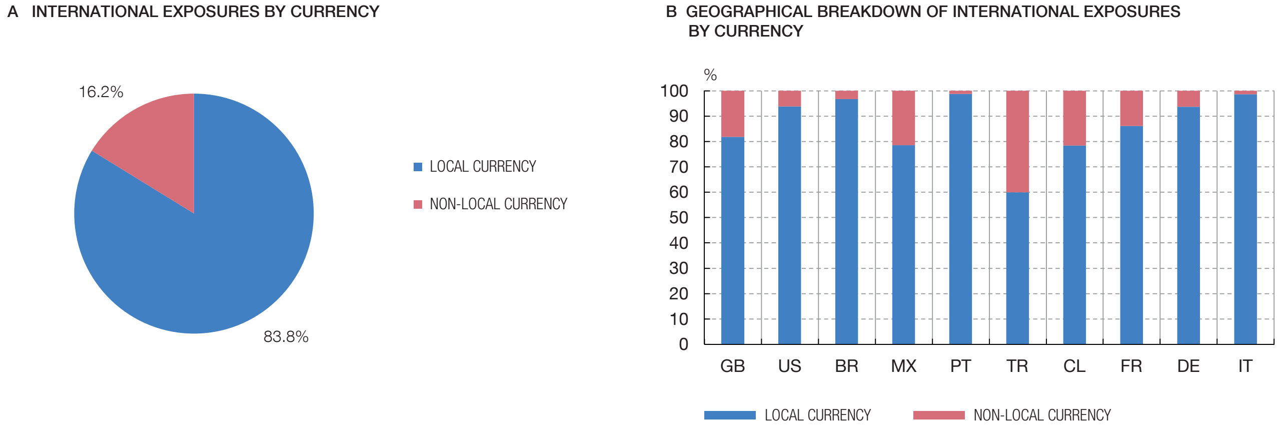


SOURCE: Banco de España.

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

INTERNATIONAL EXPOSURE. ACTIVITIES IN LOCAL CURRENCY
Deposit institutions. June 2017

CHART 2.4



SOURCE: Banco de España.

Non-performing assets

Consolidated non-performing assets decreased by 10% year-on-year

Consolidated non-performing assets decreased further in 2017 H1, continuing the sustained decline at banks in the last few years. The total volume of non-performing assets in June 2017 stood at €138 billion, down 10% from a year earlier. In June 2017 non-performing assets thus made up 3.9% of banks' consolidated total assets, compared with 4.2% in June 2016.

The total non-performing assets ratio decreased by 0.5 pp to 4.5% in June 2017

The ongoing decrease in non-performing assets allowed the total non-performing assets ratio of banks as a whole to be trimmed to 4.5% in June 2017, down 0.5 pp from the ratio in June 2016 (5%). The non-performing loans ratio of credit to the private sector dropped to 6.4% in June 2017, compared with 7.1% a year earlier, despite a fall-off of 0.7% in these loans in the period.

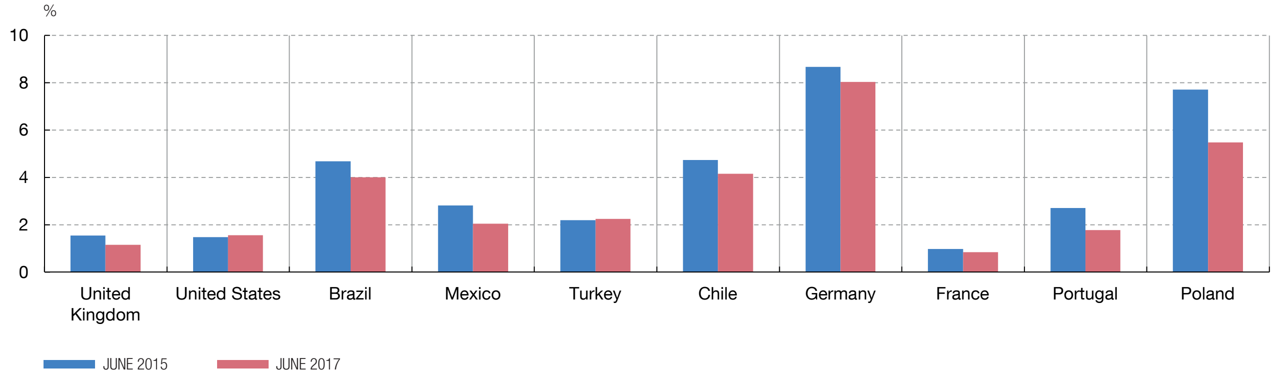
The non-performing loans ratios decreased across the board

The positive performance of consolidated non-performing loans in recent years has been favoured by the trend of Spanish deposit institutions' lending abroad. Chart 2.5.A shows the behaviour between June 2015 and June 2017 of the non-performing loans ratio in the main countries in which Spanish banks conduct business abroad. As can be seen in the chart, the non-performing loans ratio generally decreased, except for slight increases in business in the United States and Turkey, where the ratios increased by 0.1 pp but

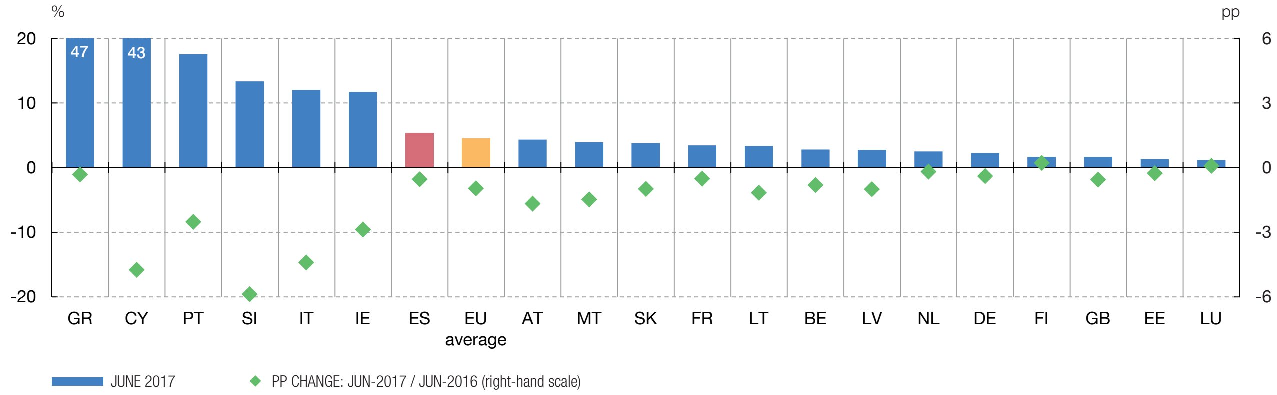
NPL RATIO
Consolidated data

CHART 2.5

A NPL RATIO IN BUSINESS ABROAD. JUNE 2015 AND JUNE 2017



B EUROPEAN NPL RATIOS. SSM COUNTRIES AND UNITED KINGDOM. JUNE 2017 (a)



SOURCE: Banco de España and European Banking Authority.

a NPL ratio in Greece and Cyprus is 46.5% and 43%, respectively.

remained at very low levels. Most notable in the other countries were the decreases of around 0.7 pp in the ratios in Latin America and in most European countries.

The non-performing loans ratio of Spanish banks is slightly higher than the European average...

On data from the European Banking Authority (EBA, see Chart 2.5.B), in June 2017 the non-performing loans ratio in Spain was slightly above the European average (4.5%). The firming of the economic recovery in the EU noted in Section 1.3 meant that in practically all EU countries the non-performing loans ratio decreased with respect to the previous year, with an average change of 1 pp. The dispersion across countries remains high, with ratios ranging between 46.5% in Greece and 1.1% in Luxembourg, although, since the ratios of the countries with higher non-performing levels have decreased the most, this dispersion is beginning to shrink.

... both for non-financial corporations and households

The database of consolidated information on European banks published by the European Central Bank (ECB on a quarterly basis[1] allows the distribution of the volume of non-performing loans across countries to be analysed. Chart A of Box 2.2 shows that Italy is clearly at the head of the EU with nearly €300 billion of non-performing loans in March 2017. Italy is followed by France (€150 billion) and Spain (€136 billion). The countries which have most reduced their volume of non-performing loans since December 2014 are Spain, with a decrease of around €47 billion, and Ireland, with a decrease of €40

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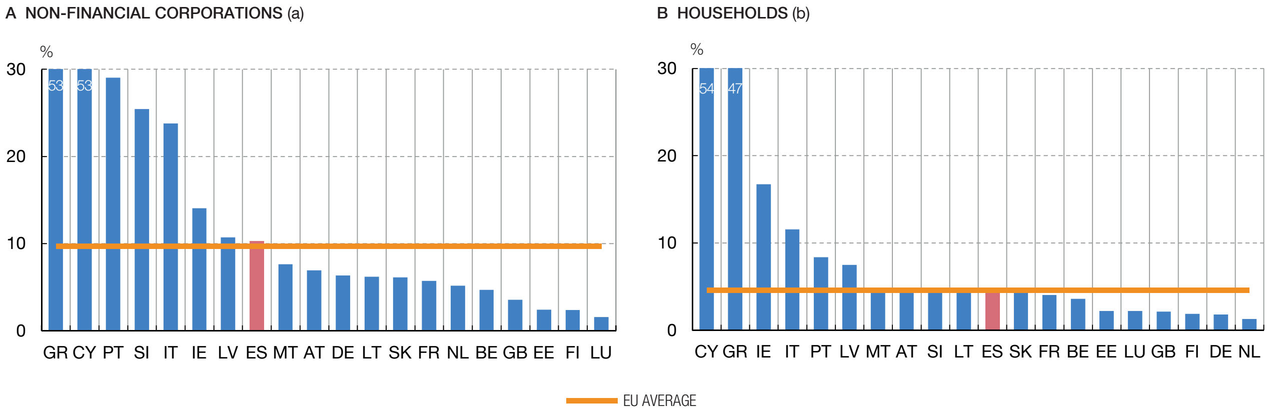
[1] See: https://www.ecb.europa.eu/stats/supervisory_prudential_statistics/consolidated_banking_data/html/ index.en.html

NPL RATIO. NON-FINANCIAL CORPORATIONS AND HOUSEHOLDS SSM COUNTRIES AND UNITED KINGDOM. MARCH 2017 **CHART 2.6**



SOURCE: European Central Bank.

a Non-financial corporations' NPL ratio in Greece and Cyprus is 53.4% and 52.8%, respectively.
b Households' NPL ratio in Cyprus and Greece is 54.4% and 46.8%, respectively.

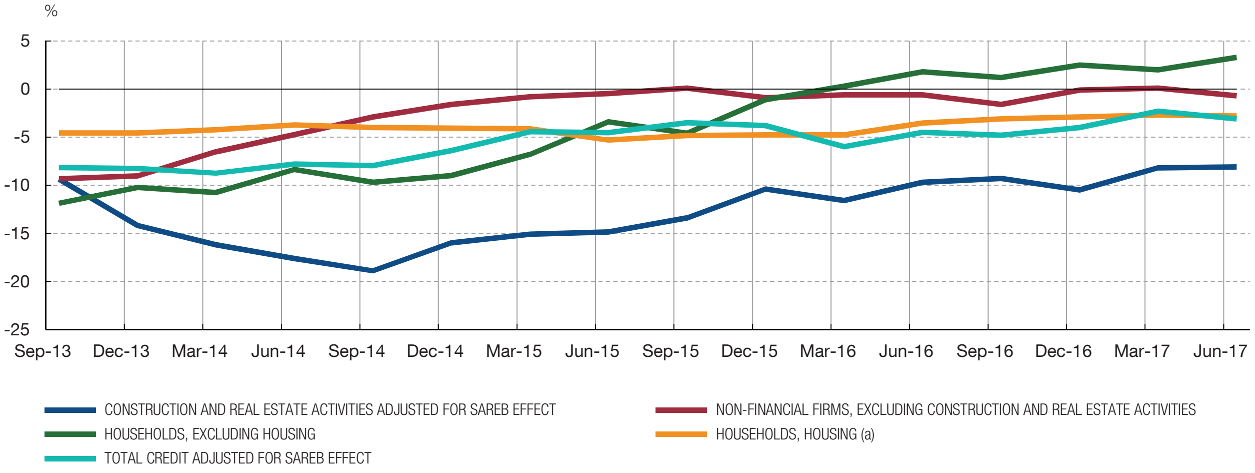
billion. In March 2017 the NPL ratio for lending to non-financial corporations by European banks at consolidated level (Chart 2.6) was 9.7%, slightly lower than that for Spanish banks (10.3%), with a high dispersion across jurisdictions. In the case of household loans, the non-performing loans ratio of Spanish banks is in line with the European average (4.6%).

Domestic exposure

In business in Spain, lending to the resident private sector continued falling in June, albeit at less negative rates than in 2016

In June 2017 credit to the resident private sector, analysed through the individual balance sheets of banks in their business in Spain, decreased by 3.2% with respect to the same month a year earlier (see Chart 2.7). This fall is appreciably lower than that in June 2016 (4.5%), and, accordingly, the trend in recent years towards normalisation of the rates of change of credit continues.

YEAR-ON-YEAR RATE OF CHANGE IN CREDIT TO THE RESIDENT PRIVATE SECTOR **CHART 2.7**
Business in Spain, ID



SOURCE: Banco de España.

a Includes securitisations.

The easing in rates of change was widespread across institutional and economic sectors

Chart 2.7 shows that the less negative values of rates of change of credit to the resident private sector were widespread across institutional and economic sectors. Credit to non-financial corporations for purposes other than construction and real estate activities remained at the near-zero growth rates prevailing since mid-2015 due, among other reasons, to the existence of financing sources other than bank loans for large firms, such as debt issuance. Regarding construction and real estate activities, the decrease in the rate of change of credit moderated to –8.1% in June 2017, compared with a more negative rate a year earlier (–9.7%). Overall, credit to non-financial firms decreased by 2.9% between June 2016 and June 2017.

In household lending, the behaviour of house purchase credit and that for other purposes was uneven, the latter having grown in the preceding 12 months

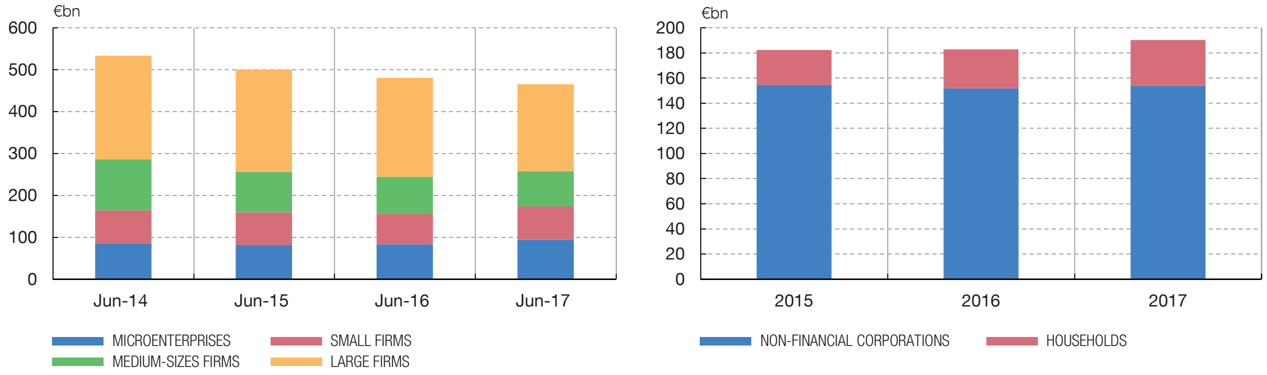
Household credit decreased by 1.8% in the past year, although credit for house purchase and rehabilitation behaved dissimilarly to that for other purposes. The former decreased by 2.8% in June 2017, a rate of fall somewhat smaller than that in June 2016 (–3.5%). However, credit for other purposes (basically consumption) grew by 3% in the past 12 months, i.e. more strongly than in June 2016 (1.7%).

CREDIT TO SMEs AND CREDIT CONDITIONS
Business in Spain, ID

CHART 2.8

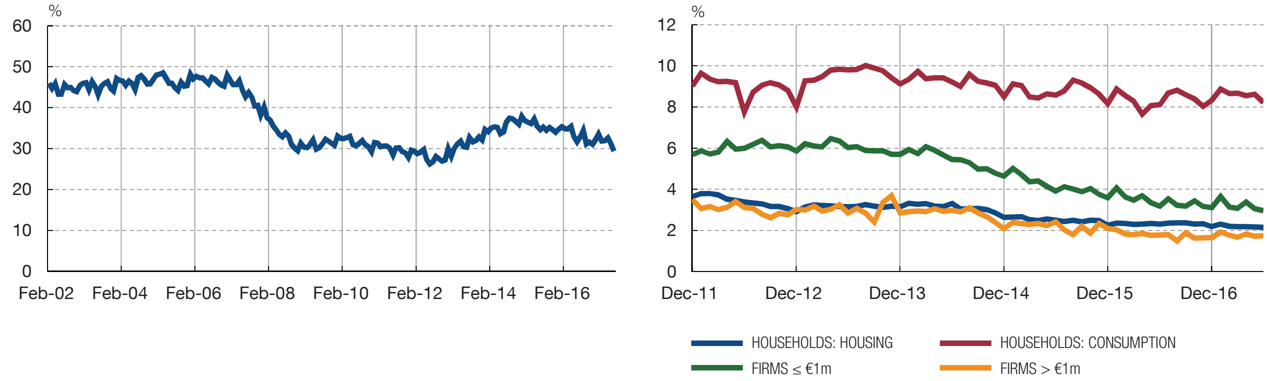
A CREDIT TO NON-FINANCIAL CORPORATIONS, BY SIZE OF FIRM

B NEW CREDIT GRANTED FROM JANUARY TO AUGUST (a)



C ACCEPTANCE RATE OF LOAN APPLICATIONS (b)

D NEW LOAN INTEREST RATES (APR) (c)



SOURCE: Banco de España.

a Loans originated in new transactions for the system between January and August of each year. They do not include renewals, forbearance nor subrogations. Nor do they include increases in principal drawn down in revolving loans, commercial credit, capped loans, credit cards and overdrafts relating to exposures originated in previous months.

b Non-financial corporations which apply for a loan to an institution with which they are not working or with which they have not maintained a credit relationship in the last three months. The acceptance rate is defined as the ratio of the transactions accepted by deposit institutions to the total applications received in a particular month.

c The new loans of a 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.

Credit to SMEs rose by 5.4%, due particularly to that to smaller firms

Significantly, analysis by firm size (see Chart 2.8.A) showed an increase of 5.4% year-on-year in credit to SMEs (up €13 billion on June 2016). This increase was attributable to the smaller-size firms: microfirms (increase of 12.6% year-on-year) and small companies (up 9.7%). For their part, medium-sized firms showed a year-on-year decrease in credit of 4.9% in June 2017. This increase in credit to SMEs contrasts with the decrease of €28 billion in credit to larger-size firms (–12% year-on-year) with direct access to the capital market. Owing to these events, the weight of SMEs in total credit to non-financial corporations increased in the past year, rising from 46.5% of the total in June 2016 to 50.6% in June 2017. Box 2.1 analyses the relationship between credit growth and banks' profitability, NPLs and solvency.

New loans granted between January and August 2017 by deposit institutions in their business in Spain stood at €190 billion, slightly higher than in the same months of 2015 and 2016. This increase is mainly due to the growth in new lending to households in 2017 with respect to previous years (see Chart 2.8.B).

The loan approval rate was down by 2 pp from the previous year, continuing the slight downward trend

The approval rate of loans requested by non-financial corporations from banks with which they are not currently operating was nearly 32% in the first half of 2017, down 2 pp from that in the same period of 2016 (see Chart 2.8.C). The slight downward trend seen since mid-2015 thus continues. These rates remain far removed from those seen in the years before the crisis, when they were around 47%, and above the lowest level (30%) of the historical time series which occurred between 2008 and 2013. This behaviour took place against a background marked by an increase of 2% in the number of loan applications between the first half of 2017 and the same period of 2016.

CHANGE IN CREDIT: RELATIONSHIP TO PROFITABILITY, NPLs AND SOLVENCY

BOX 2.1

In the Overview of this FSR, the low profitability of banks, against a background of still-declining credit volume and of a decreasing, but high, level of non-productive assets, is identified as a risk factor of the Spanish financial system. This Box analyses in more detail the relationship between bank activity and various measures of the profitability and solvency of significant institutions and the main less significant institutions in Spain (including all the cooperative sector). The common equity tier 1 (CET1) ratio, the NPL ratio of credit to the resident private sector in Spain and the ROE are stated for June 2016 and the change in credit to the resident private sector in Spain is expressed in year-on-year terms between June 2016 and June 2017. This dataset forms the basis of the analysis conducted to measure whether there is a relationship between the rate of change of credit and bank profitability, asset quality and solvency.

For each variable of interest, for example ROE, the sample of banks is divided into four groups on the basis of the 25th, 50th and 75th percentiles of this variable in order to study the distribution of credit growth within each group. Also, a scatter chart is used to observe the correlation between the variable of interest and the change in credit.

Our analysis shows a clearly negative relationship between credit quality in June 2016, as measured by the NPL ratio, and year-on-year changes in credit, for which variable the distributions become progressively more adverse as the NPL ratio of the bank group examined worsens. Lower NPLs are thus associated with higher credit growth. For the profitability (ROE) and solvency (CET1 ratio) variables, a positive relationship with the change in credit is observed, but the analysis by group shows that the differences are concentrated at the extremes. That is to say, only banks with a low ROE (or a high CET1 ratio) clearly reduce (or increase) their lending differentially with respect to the other bank groups.

1. ROE and change in credit

Chart A shows how banks with lower profitability in June 2016 (ROE below 3.5%) have a more adverse credit change distribution (higher frequency of banks with negative or low growth), with a median (–0.8%), 10th percentile (–17%) and 90th percentile (5.5%) clearly below the value of these metrics in the other groups. The differences in credit change distribution between bank groups largely disappear in groups with a ROE above 3.5%. Chart B shows the positive relation between ROE and credit growth.

2. NPL ratio and change in credit

Chart C shows how the credit change distribution becomes clearly more adverse with increasing NPL ratio (NPL ratio below 6% in the bottom group and above 10% in the top group), with a decreasing pattern shown by both the median and the extreme percentiles. At banks with an NPL ratio above 10%, the median of the change in credit is –3.2%, while the other groups have positive medians as well as much less negative values in the 10th and 25th percentiles. The negative correlation between these two variables is clearly apparent in Chart D.

3. CET1 ratio and change in credit

Chart E shows that banks in the group with the highest CET1 ratios (above 17%) have a clearly more favourable credit change distribution than the other groups, with less marked negative changes in the bottom percentiles and higher upward growth in the top percentiles. By contrast, there is no clear pattern of change in the credit change distribution as a function of the level of the CET1 ratio in bank groups with a ratio below 17%. In particular, the bank group with the lowest CET1 ratio (between 10% and 12%) does not have a more adverse distribution than groups with solvency ratios between 12% and 17%. Chart F shows that, despite this relatively flat pattern when banks are classified into solvency groups, the average relationship between CET1 ratio and credit growth is positive.

Chart A
PERCENTILES OF CHANGE IN CREDIT BY LEVEL OF ROE (a)

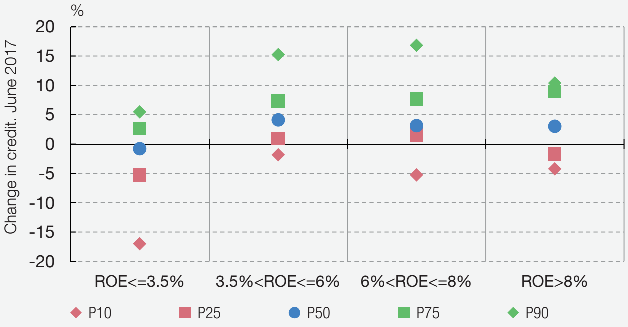


Chart B
CORRELATION BETWEEN CHANGE IN CREDIT AND ROE (b)

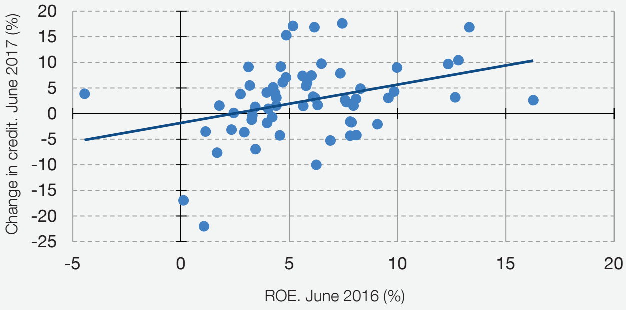


Chart C
PERCENTILES OF CHANGE IN CREDIT BY LEVEL OF NPL RATIO (a)

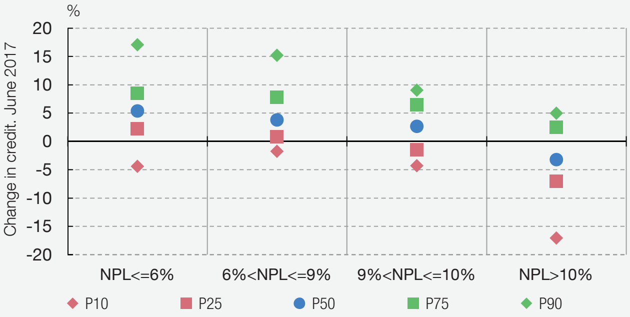


Chart D
CORRELATION BETWEEN CHANGE IN CREDIT AND NPL RATIO (b)

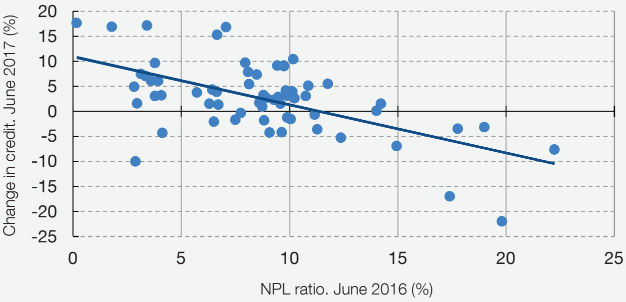


Chart E
PERCENTILES OF CHANGE IN CREDIT BY LEVEL OF CET1 RATIO (a)

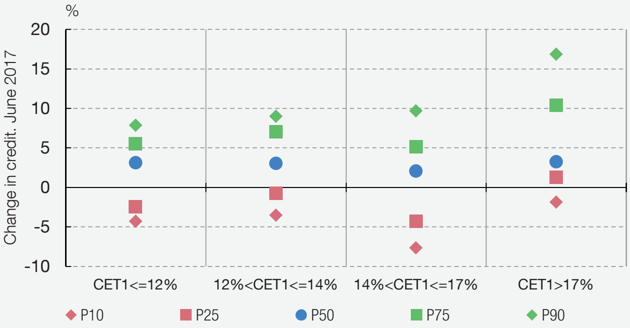
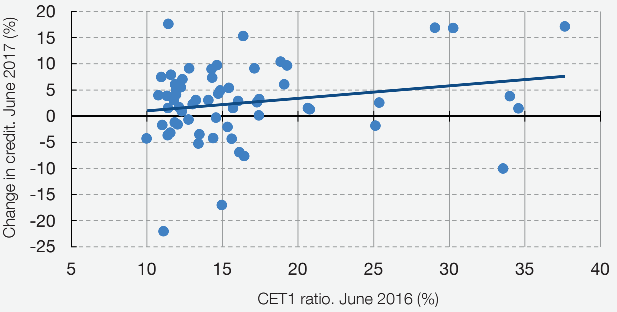


Chart F
CORRELATION BETWEEN CHANGE IN CREDIT AND CET1 RATIO (b)



SOURCE: Banco de España.

a Banks in the sample are classified in four groups based on their ROE (Chart A), NPL ratio (Chart C) or CET 1 ratio (Chart E) in June 2016. Percentiles 10, 25, 50, 75 and 90 of change in credit to the resident private sector in Spain within each group are denoted as P10, P25, P50, P75 and P90.

b Each point corresponds to a bank.

Interest rates on new loans continued on the stabilising path seen in 2016

Interest rates on new loans (see Chart 2.8.D) continued on the stabilising path seen in 2016, especially in the case of households, both in house purchase loans and in those for other purposes. Also steadier were the interest rates on loans above €1 million to firms, while those on loans below this amount continued the slight decline apparent in recent years, albeit more moderately.

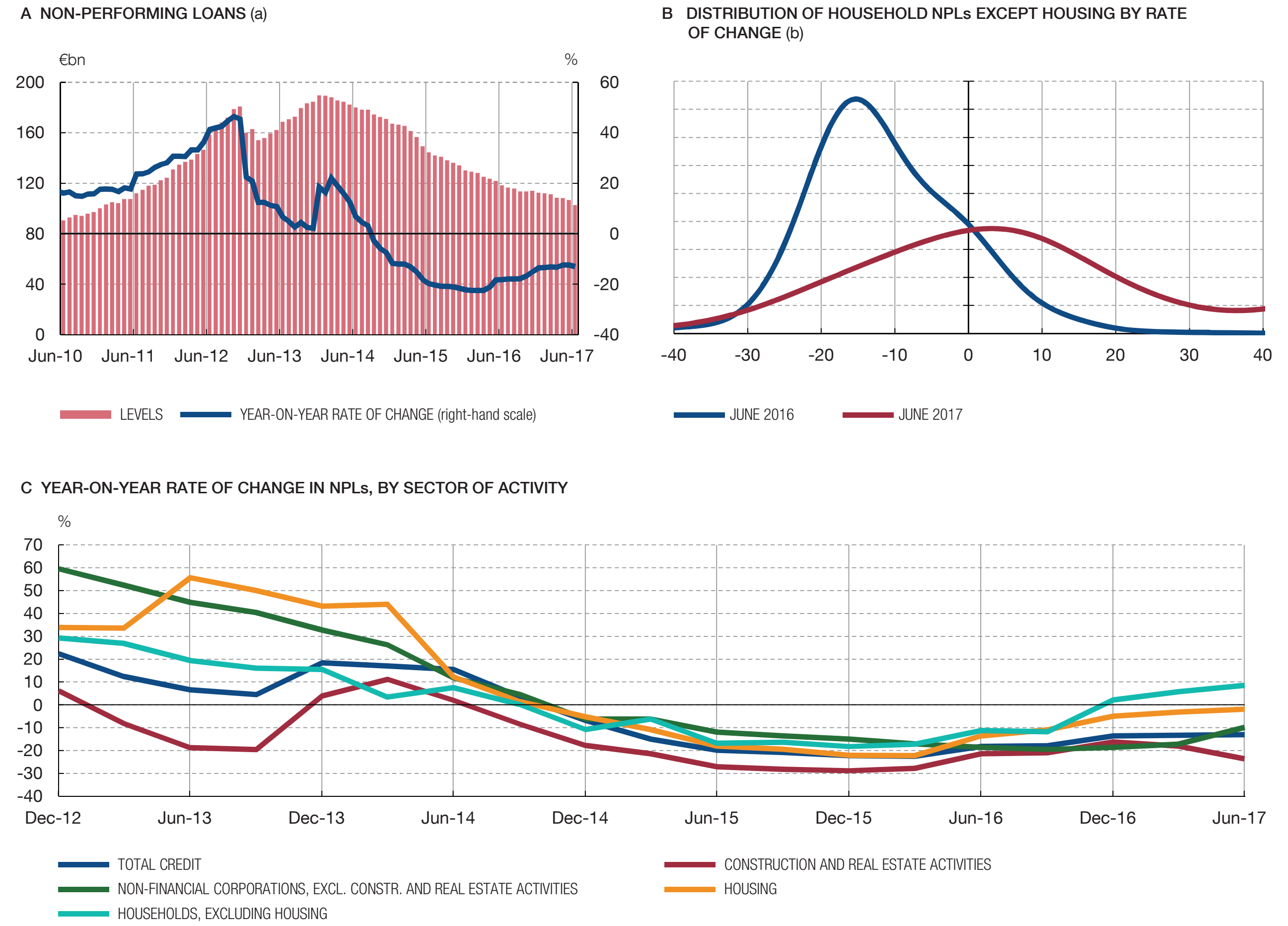
Troubled assets

Non-performing loans continued to decrease in the past year, at a year-on-year rate of 13.1%, showing a cumulative fall of 45.8% since December 2013

Spain's favourable economic performance in the past year allowed a further decrease in non-performing loans between June 2016 and June 2017 (see Chart 2.9.A). This decrease, at €15.4 billion in absolute terms, was in line with those seen in the last few years. From the peak amount of non-performing loans in December 2013, the decrease is now €86.7 billion. In percentage terms, the decrease in the past year has been 13.1%, while the cumulative decrease since December 2013 is 45.8%. However, the decrease in the past year is smaller than that recorded a year earlier (18.2% in June 2016). If the economy maintains the pattern of growth seen in recent years with an evident recovery in the employment level, and active management continues through open-market sales – and

NPLs. RESIDENT PRIVATE SECTOR
Business in Spain, ID

CHART 2.9



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.
b The graph shows the density function (or frequency distribution) of the NPL ratio for Spanish deposit institutions. This density function is approximated through a kernel estimator which allows a non-parametric estimate of the density function, yielding a continuous and smoothed graphical representation of that function.

others already announced but still in the process of execution – by banks of their non-productive assets, non-performing loans will conceivably decrease further in the business in Spain of deposit institutions. Box 2.2 contains a more in-depth time analysis of non-performing loans.

In the past year troubled assets decreased at non-financial corporations, but increased slightly in households

By institutional sector, non-performing loans decreased in lending to non-financial corporations (–17.3%), while they increased slightly in household lending (1%) due to NPL behaviour in consumer credit. In both cases the rates of change of non-performing loans are smaller than 12 months earlier. The year-on-year decrease in non-performing loans to households was 13% in June 2016, while that in non-performing loans to non-financial corporations was 20.1%.

In corporates, the decrease was across all sectors, while in households they decreased in house purchase loans but increased in other credit

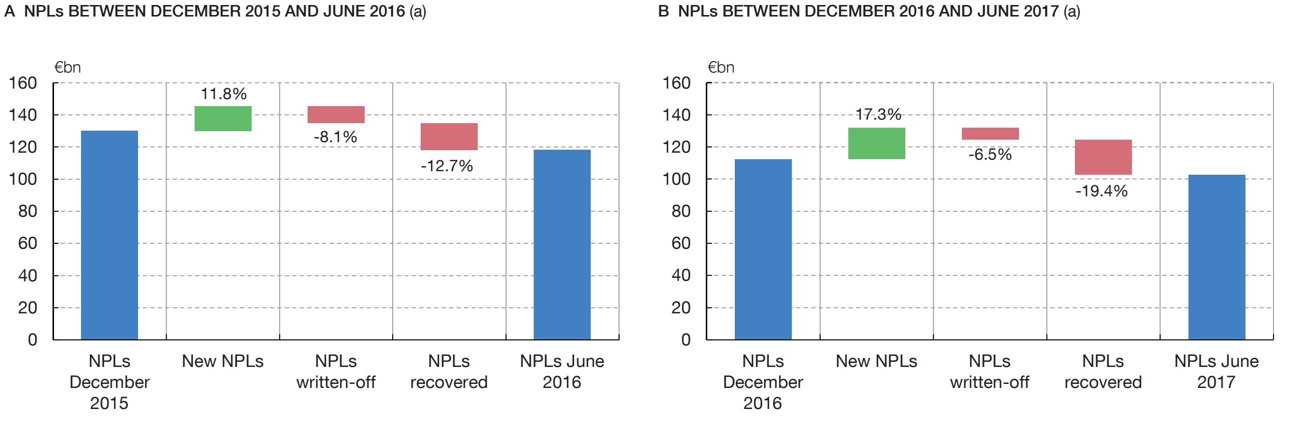
Analysis by activity (see Chart 2.9.C) shows that non-performing loans to non-financial corporations decreased both in lending for construction and real estate activities (–23.6% year-on-year in June 2017) and in lending to other sectors (decrease of 9.8%). In loans for construction and real estate activities, the decrease was more marked than in June 2016 also in year-on-year terms. In household lending, the behaviour of house purchase NPLs deferred markedly from that of consumer NPLs. The former continued their downward course, falling by 1.9% year-on-year in June 2017, while consumer NPLs grew with respect to the same month of the previous year (up by 8.5%). This type of credit is one of the most profitable business segments (see Chart 2.8.D) and that which grew most in year-on-year terms (see Chart 2.7). The persistently low profitability faced by banks may have induced them to seek higher profits recently at the cost of running higher risks. The upsurge in non-performing loans of banks generally (see Chart 2.9.B) may be a sign of this higher risk. Attention will have to be paid to these developments in the coming months.

Inflows into and recoveries of non-performing loans increased with respect to the previous year

Charts 2.10.A and 2.10.B show, respectively, the movements explaining the behaviour of non-performing loans between December 2015 and June 2016 and between December 2016 and June 2017. In both cases non-performing loans decreased between the start and the end of the period analysed. However, compared with what occurred in the first six months of 2016, the decrease in non-performing loans in the latter half-year was based more on loan recoveries, since new non-performing loans increased.

FLOW OF RESIDENT PRIVATE SECTOR NPLs
Business in Spain, ID

CHART 2.10



A NPLs BETWEEN DECEMBER 2015 AND JUNE 2016 (a)

B NPLs BETWEEN DECEMBER 2016 AND JUNE 2017 (a)

SOURCE: Banco de España.

a 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, foreclosed assets and NPLs sold to third parties.

As noted at the beginning of this FSR, non-productive assets on banks' balance sheets put pressure on their income statements. The more information there is on these assets, the easier it will be to formulate measures to minimise their impact on the financial position of banks.

The current scenario in Europe highlights their importance. On consolidated data as at March 2017, the total volume of NPLs in the EU amounted to somewhat more than €1 trillion, practically the value of the Spanish GDP, or 7% of the EU GDP.

Chart A shows the volume of NPLs in the countries forming part of the Single Supervisory Mechanism (SSM) and in the United Kingdom. Most notable here is the Italian banking system, which accounts for around €300 billion, followed by the major European banking systems in terms of size.

Clearly, banking system size is a determining factor when NPLs are classified in absolute terms. However, when these NPLs are expressed in relative terms, i.e. as a proportion of total exposure, the situation changes because size is no longer the variable determining the order in the classification.

Chart 2.5.B shows that, at consolidated level, the NPL ratio of the Spanish banking system is only slightly higher than the EU average.

Having placed the problem in its context and shown that it affects the whole of the European banking system, we now look at some of its main features, focusing particularly on Spain. For this purpose we use domestic NPL data on loans to the resident private sector.

Chart B of the Overview shows the behaviour of NPLs over more than three decades for Spanish deposit institutions as a whole, both in absolute terms (billions of euro) and in relative terms through the NPL ratio.

Evidently the recent financial crisis constituted a thereto unknown situation for the Spanish banking system. The volume of NPLs on the balance sheet of deposit institutions climbed to almost ten times the previous record high (1993 crisis). Such a large volume of NPLs also caused extremely high increases, in comparative terms, in NPL ratios. The time dimension of total NPLs and of the NPL ratio, shown here for domestic exposures, serves to set the severity of the recent crisis in its context.

Further insight into the recovery capacity shown by the Spanish banking system is gained from comparing the decrease in the volume of NPLs from the peak reached in the recent crisis with that in 1993.

That is to say, if the nominal fall in the volume of NPLs from the 2013 peak to December 2016 (three years) is compared with that which took place in 1993 after the same lapse of time (i.e. taking NPL volume in December 1996), the two adjustments are seen to coincide. In other words, three years (36 months) after the December 2013 peak, the fall in the volume of NPLs (somewhat more than 40%) coincides with that which took place in the three years following the 1993 crisis (see Chart B).

A similar time analysis of the NPL ratio shows that the adjustment after the 1993 crisis (three years later) is larger than that which occurred after the 2013 peak. The reason is the behaviour of the denominator of the ratio (the volume of exposures). The continuous fall in the total volume of credit, which still persists, prevented the NPL ratio in the recent crisis from reaching the level of adjustment seen in the 1993 crisis (Chart C). It thus seems obvious that recovery in credit growth would help to resolve the NPL problem more rapidly.

In any event, what is clear after the two crises is the high correlation between the business cycle and the build-up of NPLs (Chart D). If the business cycle continues to improve, it can be expected that, given the negative correlation with the amount of NPLs, the volume of NPLs will continue to decrease.

Chart A
VOLUME OF NPLs. EUROPEAN COMPARISON
Consolidated data. March 2017

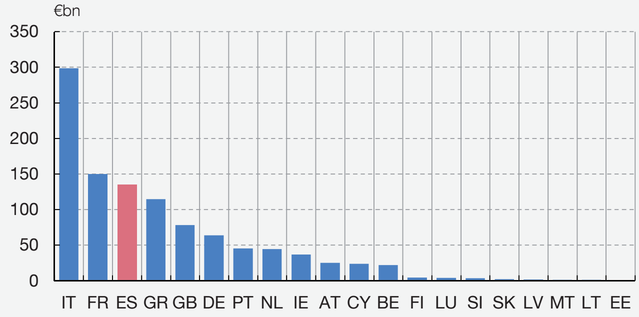
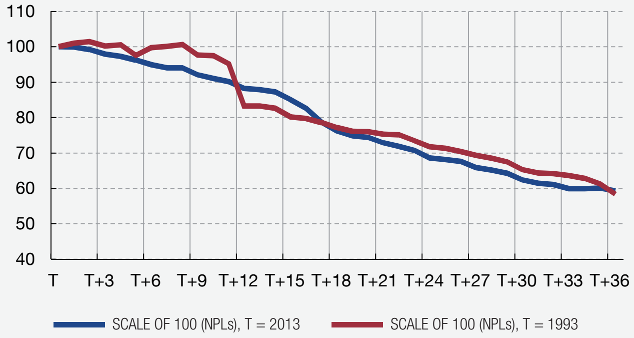


Chart B
NPLs TO THE RESIDENT PRIVATE SECTOR
Business in Spain, ID



SOURCES: European Central Bank and Banco de España.

Having identified the problem, as well as its amount and its evident relationship with economic activity, we now examine its treatment. The key is the recognition of the associated loss, which is done through asset impairment, i.e. by recording provisions.

An appropriate level of provisions is crucial for the proper treatment of NPLs. In June 2017 the level of coverage of NPLs in the domestic exposures of Spanish deposit institutions was 46%, being 55% in corporate loans and 30% in household loans (Chart E).

However, the analysis cannot be considered complete if the examination of provisioning coverage is not accompanied by a consideration of loan collateral. Thus, if the value of collateral is added to the volume of provisions, the average coverage reaches 89%, and practically 100% in mortgage loans (Chart F).

Even when impairment, i.e. the level of provisions, is adequate, it may be considered, as is currently so in the EU, that the level of NPLs is so high that alternative solutions have to be explored to reduce the existing NPL levels.

Some possible solutions to the NPL problem at European level include: the creation of government and/or privately owned asset management companies to optimise the management of these assets (e.g. Sareb in Spain); fostering and facilitating the functioning of NPL secondary markets; reducing possible legal obstacles to the creation of these markets and the sale of NPLs on them; and starting up NPL valuation and management services to help optimise NPL treatment.

In any event, we should not forget that the best policy to follow is one which entails not having to apply any of the aforementioned measures. Therefore, the approach prevailing in the appropriate management of bank credit risk should be of a preventive nature, through the implementation of prudent loan valuation policies and the non-relaxation of credit standards. Credit risk mitigators (collateral) and the related appropriate collateral valuation, along with prospective measures (e.g. stress tests) and retrospective measures (review of credit standards), should form part of and complete the battery of policy measures to be taken to prevent the NPL problem. The historical evidence shows that crises are cyclical episodes associated with the growth of NPLs, which are an extremely costly consequence of them.

Chart C
RESIDENT PRIVATE SECTOR'S NPL RATIO
Business in Spain, ID

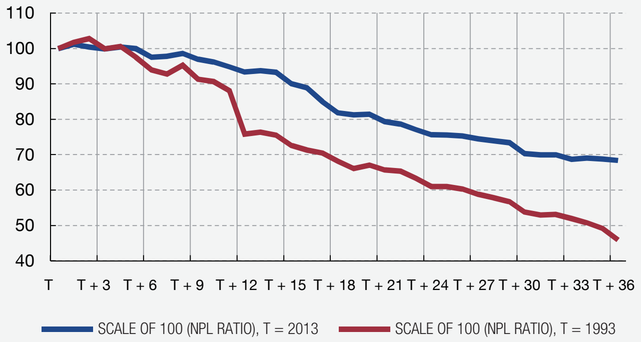


Chart D
NPLs AND QUARTER-ON-QUARTER RATE OF CHANGE IN GDP
Business in Spain, ID

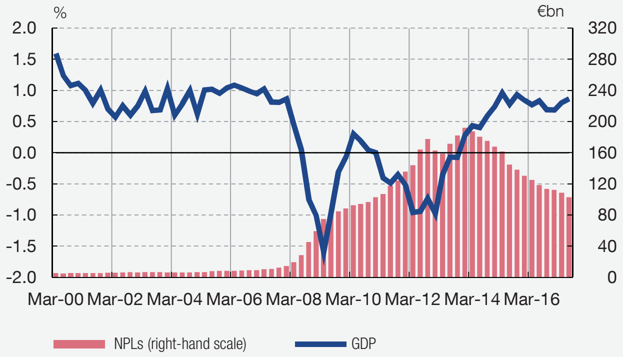


Chart E
COVERAGE RATIO BY INSTITUTIONAL SECTOR. JUNE 2017, ID

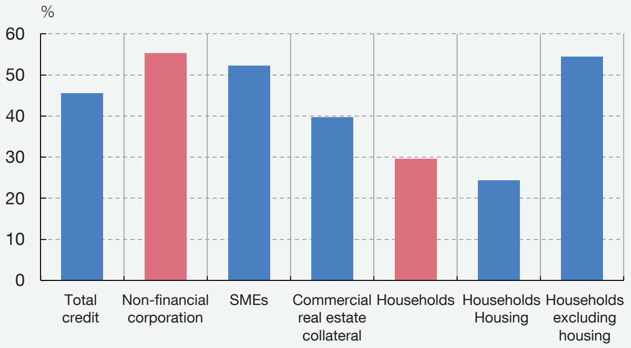
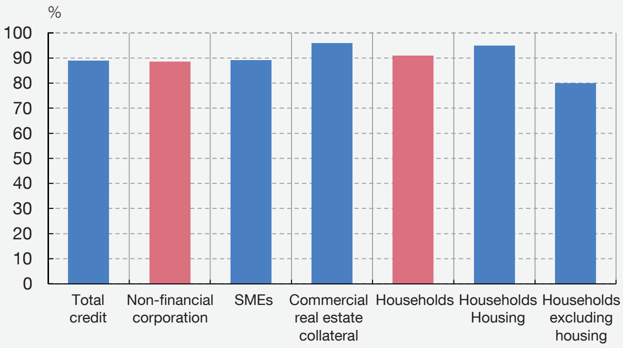
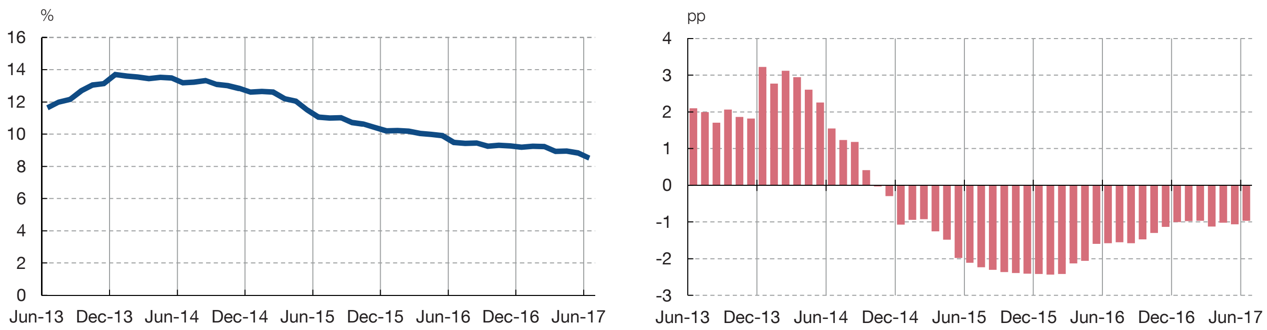


Chart F
COVERAGE AFTER CONSIDERING COLLATERAL VALUE
BY INSTITUTIONAL SECTOR. JUNE 2017, ID



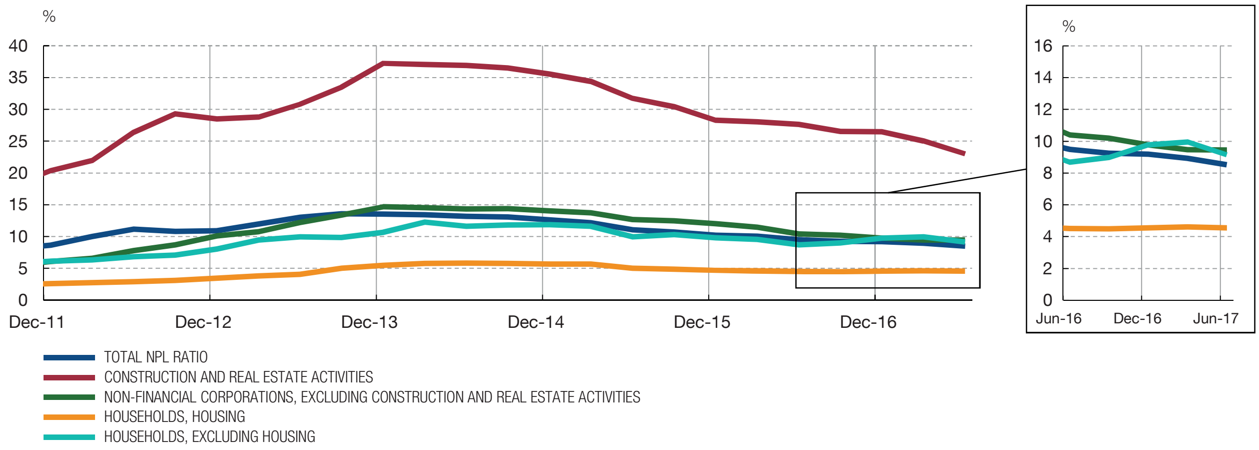
SOURCE: Banco de España.

NPL RATIO. RESIDENT PRIVATE SECTOR **CHART 2.11**
Business in Spain, ID

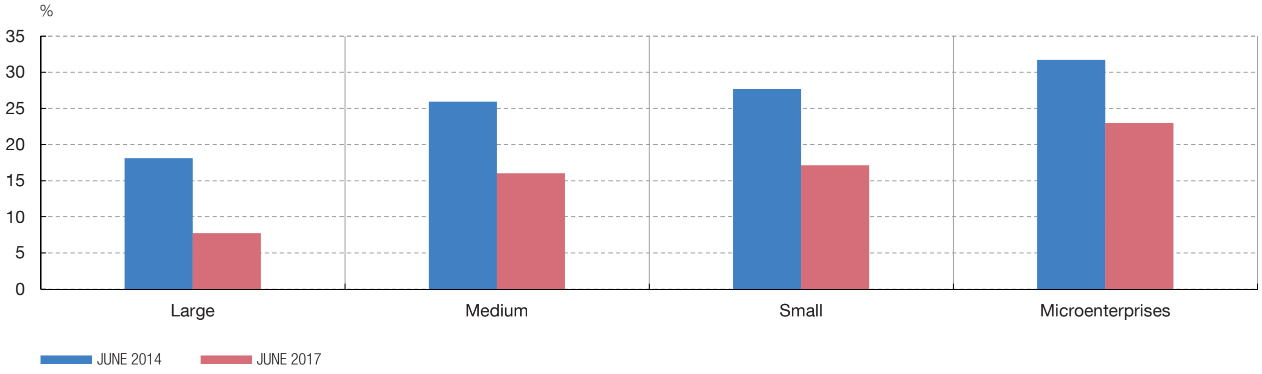


A NPL RATIO

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.

The non-performing loans ratio decreased further to 8.6% in July 2017

The non-performing loans ratio of the resident private sector in business in Spain continued the trend shown in the last few years and decreased to 8.6% in July 2017, a fall of 0.9 pp in the ratio in the past 12 months (see Chart 2.11.A). This was because non-performing loans (numerator of the ratio) decreased more sharply than loans (denominator of the ratio) in year-on-year terms. However, the slower pace of the fall in non-performing loans in recent quarters meant that the non-performing loans ratio also fell more slowly year-on-year compared with previous periods (see Chart 2.11.B).

The ratio increased slightly in households and decreased in non-financial corporations

By institutional sector (see Chart 2.11.C), the NPL ratio increased slightly in household lending, from 5.2% in June 2016 to 5.4% in June 2017, interrupting the downward trend seen in recent quarters since the peak of March 2014. In non-financial corporations the ratio decreased significantly from 15.8% in June 2016 to 13.4% a year later (down 2.4 pp). In this latter case the trend seen in recent years continued.

In households the NPL ratio of lending for house purchase held steady and that of lending for other purposes increased, while in corporate lending there was an across-the-board decrease

In household lending, the NPL ratio of loans for purposes other than house purchase increased in the past year to 9.2% (8.7% in June 2016), in line with the higher risk and profitability of these transactions. In any event, Chart 2.11.C shows that this ratio peaked in March this year. The NPL ratio of house purchase lending held steady in the past year at around 4.5%. The NPL ratio of lending to non-financial corporations decreased both in construction and real estate activities (from 27.6% in June 2016 to 23% in June 2017) and in the other sectors of activity (9.4% in June 2017 compared with 10.4% a year earlier).

Analysis by firm size (see Chart 2.11.D) shows that in June 2017 the smallest firms (microfirms) had the highest NPL ratio (23%), followed by small companies (17.1%) and medium-sized firms (16%). SMEs as a whole had an NPL ratio of 18.9%, it having decreased in the past year by 2 pp from 20.9% in June 2016. Large firms had a lower NPL ratio (7.7 % in June 2017). The chart illustrates the notable decrease in the NPL ratio by firm size in recent years.

In the past year forborne loans decreased by 29.5% at consolidated level and by 36% in business in Spain

Forborne loans to the private sector by Spanish banks as a whole at consolidated level amounted to €138.9 billion in June 2017, down 29.5% from a year earlier. According to individual financial statements, which include only the activity of banks operating in Spain, the volume of forborne loans to the private sector stood at €103.1 billion, down 36% year-on-year.

2.1.2 SYSTEMIC RISK

The SRI remains low, although it has increased in October as a result of the political uncertainty in Catalonia

The systemic risk indicator (SRI), which measures synthetically the level of stress in the financial markets,[2] has remained low since the publication of the previous FSR, reflecting the ongoing containment of tensions in the financial markets since the second half of 2016. However, in October its level has increased as a result of the political uncertainty in Catalonia. In any event, the SRI is still at levels lower than those recorded after Brexit or early-2016 turmoil (see Chart 2.12), and far from the levels reached in the 2011-2012 crisis. The escalation of political tensions may negatively affect this index, which captures investor sentiment and confidence in the Spanish financial markets.

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. Following episodes of systemic alert recorded during the crisis, the average CoVaR of Spanish banks has since remained at much lower levels. The latest data show that the 5th percentile of the CoVaR of European banks has increased, indicating a fall in the contribution to systemic risk from the banks which had shown themselves to be most systemic. This improvement is also seen in the average for Spanish banks. However, at the same time there is a closer proximity to the 5th percentile. This indicates that the contribution to systemic risk from Spanish banks has increased in relative terms with respect to the rest of the European system, although in absolute terms its contribution has decreased.

2.1.3 FUNDING RISK

Interbank market activity remained very low...

Since the previous FSR, euro area interbank market activity has continued to weaken.

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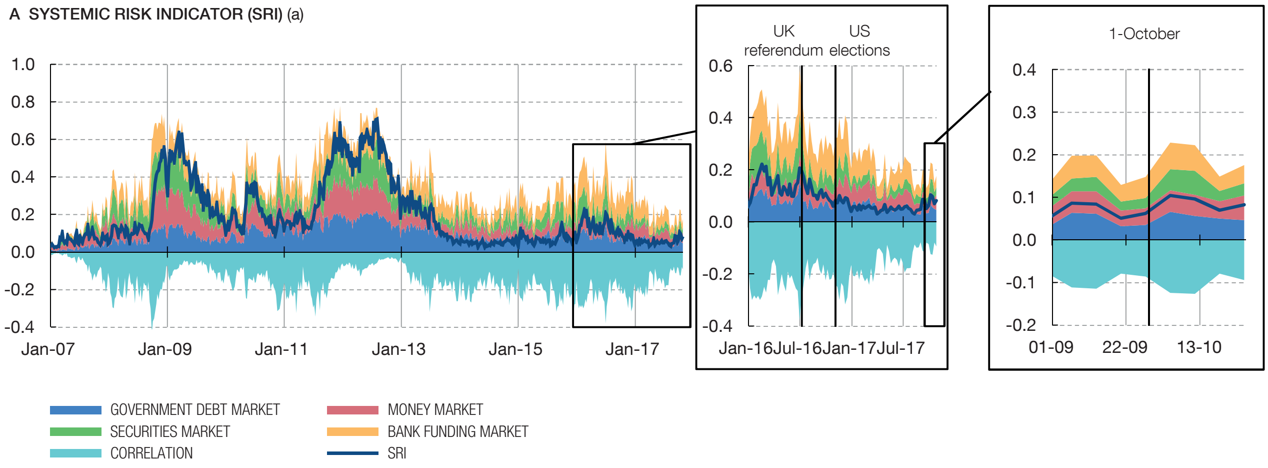
[2] See Box 1.1 in the May 2013 FSR for an explanation of its construction and interpretation.

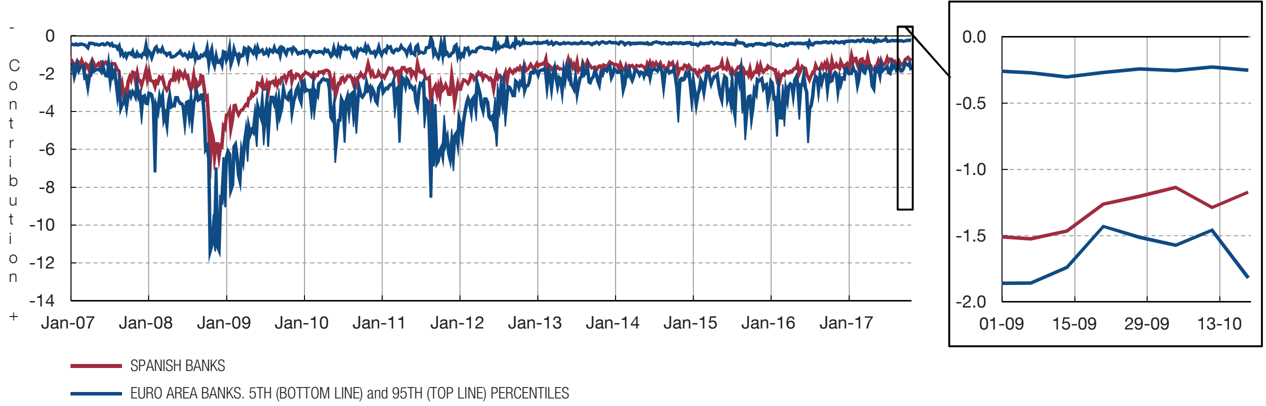
SYSTEMIC RISK

CHART 2.12

A SYSTEMIC RISK INDICATOR (SRI) (a)



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



SOURCES: Datastream and Banco de España.

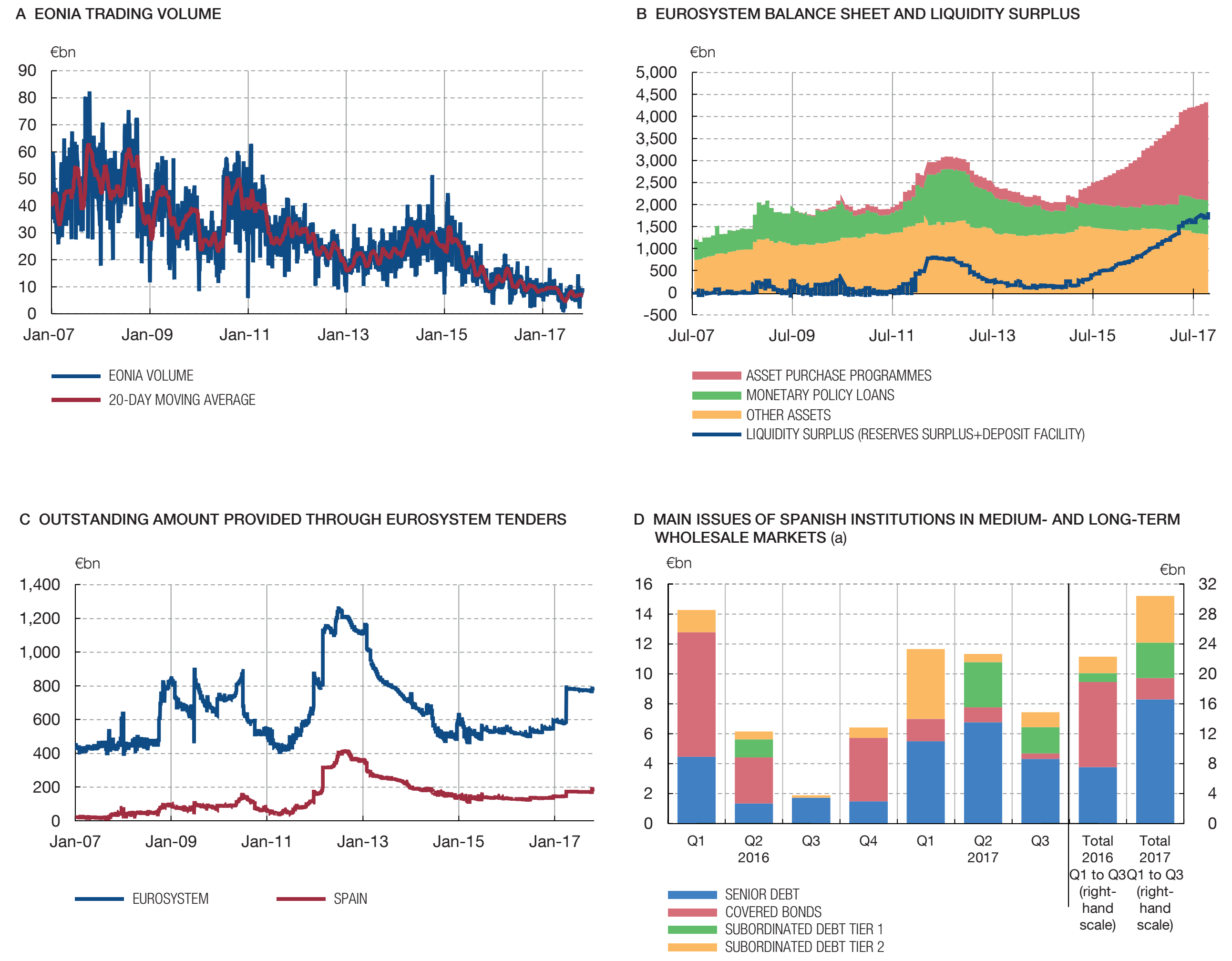
a For a detailed explanation of this indicator, see Box 1.1 in the May 2013 FSR .
b The CoVaR model is used to calculate the impact that a situation of bank stress would have on the financial system. The sample used in the CoVaR calculation comprises a total of 37 listed Spanish and euro area institutions.

Chart 2.13.A shows EONIA trading volume, which remained very low and reached an all-time low at the beginning of June. The performance of the Spanish interbank market was similar, with very small trading volumes in both the collateralised and the non-collateralised segments and a progressively less significant role of the latter, which in 2017 Q3 only represented 2% of total trading.

...largely due to the extensive Eurosystem monetary policy measures

This limited activity on the interbank markets continues to be largely due to the excess liquidity resulting from the Eurosystem's extensive monetary policy measures via various asset purchase and refinancing programmes (see Chart 2.13.B), including the four targeted longer-term refinancing operations (TLTRO II) executed between June 2016 and March 2017. Chart 2.13.C shows the outstanding amount provided through ECB tenders, both for the Eurosystem as a whole and for banks resident in Spain. It shows that European, and particularly Spanish, credit institutions have continued to have considerable recourse to Eurosystem funds and have even increased the funding obtained via tenders by submitting bids in TLTRO II operations, especially the last one, the allotment for which was at the end of March. Since then, gross recourse has remained practically constant both in the Eurosystem as a whole and in Spain.

WHOLESALE FUNDING **CHART 2.13**



A EONIA TRADING VOLUME

B EUROSYSTEM BALANCE SHEET AND LIQUIDITY SURPLUS

C OUTSTANDING AMOUNT PROVIDED THROUGH EUROSYSTEM TENDERS

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

SOURCES: Bloomberg, Dealogic and Banco de España.

a Senior debt, covered bonds and subordinated debt tier I and tier II issues. Retained issues are not included.

Consequently, the loan to Spanish banks as a percentage of the Eurosystem total has scarcely changed since the publication of the previous FSR. Specifically, the share of funds allotted in tenders to banks resident in Spain averaged 22.2% in September 2017. However, this share becomes less and less representative as the Eurosystem purchase programme proceeds, because the relative importance of refinancing operations is decreasing. Indeed, the liquidity provided by this last mechanism, nearly €800 billion, accounted at October for a little more than one-third of the amount provided by the Eurosystem under the purchase programme.

Banks stepped up their issuance activity in the first three quarters particularly the issuance of senior debt and debt capable of absorbing losses

With regard to longer-term funding, Spanish deposit institutions stepped up their issuance activity in the first three quarters of 2017 compared with the same period of 2016 (see Chart 2.13.D). Particularly notable was the growth in issuance of instruments capable of absorbing losses and those eligible for solvency purposes, whether as Tier 1 or Tier 2 capital. Senior debt issuance also grew significantly, exceeding €15 billion in the year so far. Moreover, this year Spanish banks began to issue senior non-preferred debt which they can use to meet MREL requirements (for own funds and other eligible liabilities) set by the European resolution authorities.

The future requirement that deposit institutions hold a minimum amount of MREL so they have sufficient funds to obviate government bail-outs in resolution situations, will oblige them to turn to the markets to obtain the required amounts. In view of the volume of issues which may eventually be needed, there is a risk that offerings of instruments will accumulate in a short space of time and that placement difficulties may arise, depending on the type of bank in question. Therefore, the tailoring of MREL policy to the various resolution tools available (bail-in, bank sale, bridge bank and sale of a portion of assets), the adaption of banks' business models and the requirements schedules to be determined by the resolution authorities, will be important for managing these issues.

Covered bond insurance decreased considerably to stand below €3 billion. As regards its course over the year, issuances of all types of debt were higher in the first half of the year and decreased in the third quarter. Box 2.3 analyses how the market for eligible loss-absorbing instruments was affected by the recent bank resolution actions in the euro area.

EFFECTS OF BANK RESOLUTION ACTIONS IN THE EURO AREA ON THE MARKET OF ELIGIBLE INSTRUMENTS WITH LOSS-ABSORBING CAPACITY

BOX 2.3

Some bondholders took losses following the resolution in June of this year of Banco Popular Español (BPE) and the resolution and winding up of two Italian banks, Banca Popolare di Vicenza (BPV) and Veneto Banca (VB).[1] This raises the question as to whether there has been a change in the market perception of the risk of debt and equity instruments issued by banks. This question is especially relevant for eligible loss-absorbing instruments in bank resolution processes. Drawing on market price data for financial instruments of a broad sample of banks, the extent of this possible change in perception is analysed.

Chart A depicts the performance of the EURO STOXX 600 European banking sector index and of the average secondary market spreads to benchmark mid-swaps for euro-denominated senior and subordinated bank debt. No signs of stress are observed around the resolution dates of BPE (7 June 2017), BPV or VB (both 23 June

Chart A
SECONDARY MARKET SPREADS TO MID-SWAPS AND EUROPEAN BANKING SECTOR STOCK INDEX (a)

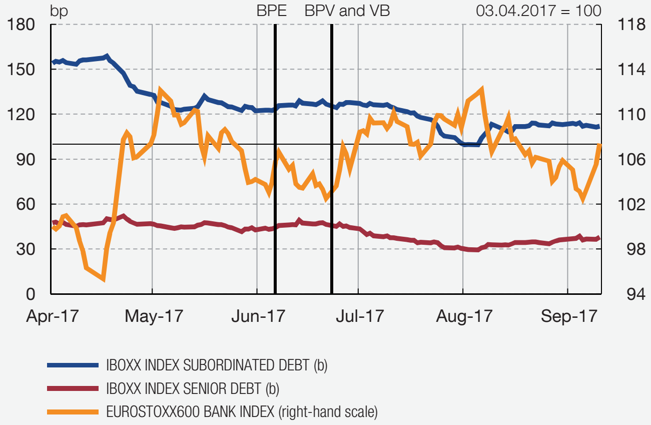
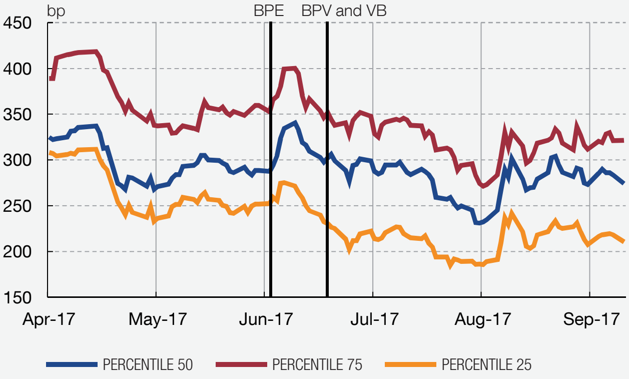


Chart B
INTEREST RATE SPREADS BETWEEN AT1 AND T2 INSTRUMENTS DENOMINATED IN EUROS (a) (c)



SOURCES: Datastream and Reuters.

- **a** The first line marks the resolution of Banco Popular Español and the second the liquidation of Banca Popolare di Vicenza and Veneto Banca.
- **b** Secondary market spreads to mid-swaps for Iboxx indices that comprise euro-denominated subordinated and senior bank debt. The subordinated debt category includes T2 type instruments.
- **c** The chart presents the change in the period in the 25th, 50th and 75th percentiles of the interest rate spreads between AT1 and T2 instruments. For example, the 75th percentile on a specific date signals the spread between AT1 and T2 instruments of the issuer with a larger spread than 75% of the sample at that date.

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[1] Subordinated bondholders of all three banks, except for retail bondholders in the case of the Italian banks, lost all their investment as a consequence of resolution. According to the banks' latest annual reports, at the 2016 close subordinated bonds amounted to €2 billion for BPE and to slightly more than €600 million for each of the two Italian banks.

Chart C
PRICE CHANGE OF EURO-DENOMINATED SUBORDINATED BONDS (6 JUNE 2017 TO 9 JUNE 2017) (a)

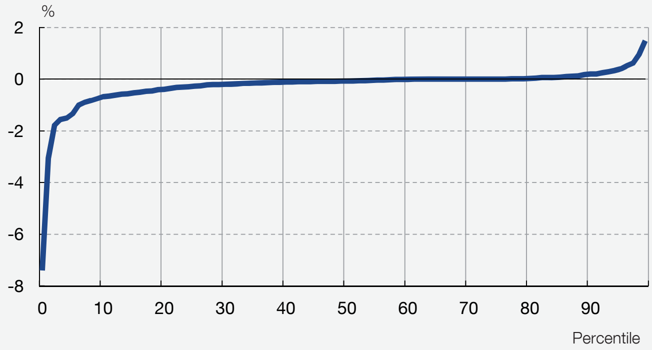


Chart D
CUMULATIVE PRICE CHANGE OF STRESSED AND TOTAL SUBORDINATED BONDS, SINCE 9 JUNE (b)

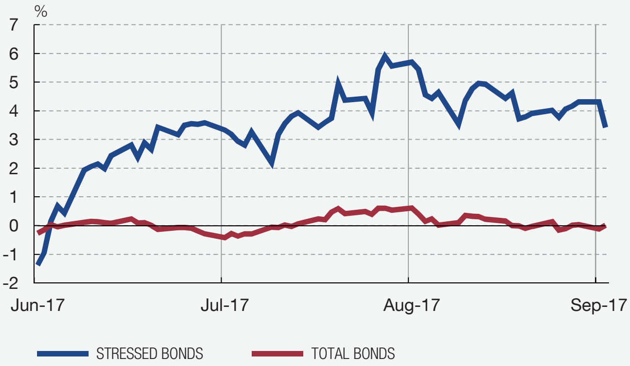


Chart E
PRICE CHANGE OF EURO-DENOMINATED SUBORDINATED BONDS (22 JUNE 2017 TO 30 JUNE 2017) (a)

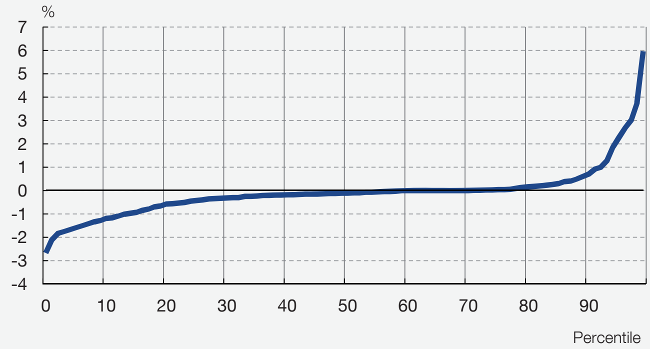
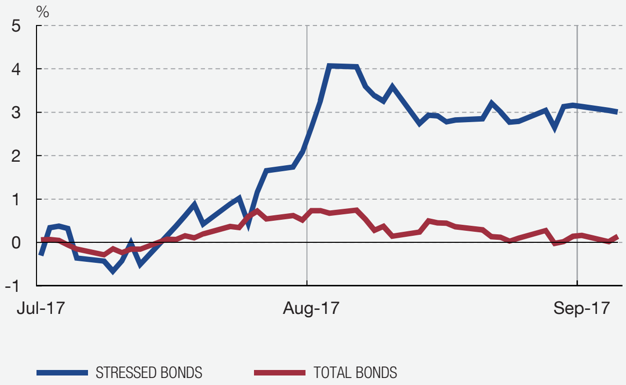


Chart F
CUMULATIVE PRICE CHANGE OF STRESSED AND TOTAL SUBORDINATED BONDS, SINCE 30 JUNE (c)



SOURCE: Reuters.

a Change in price of the bonds expressed as a percentage of par value on the vertical axis. The horizontal axis displays the distribution in percentiles of the bond issues considered. The bonds with the largest drops in price are on the left-hand side of the distribution and those with the largest price increases on the right-hand side.

b The series represent the cumulative change since 9 June in the median price for each set of bonds, all euro-denominated. The stressed bonds series comprises the 5% of bank AT1 and T2 (or similar) bonds in the sample with the largest drops in price between 6 and 9 of June, after the resolution of BPE. The total bonds series relates to the set of all euro-denominated subordinated bonds issued by European banks.

c The series represent the cumulative change since 30 June in the median price for each subset of bonds, all euro-denominated. The stressed bonds series comprises the 5% of bank AT1 and T2 (or similar) bonds in the sample with the largest drops in price between 22 and 30, after the resolution of BPV and VB. The total bonds series relates to the set of all euro-denominated subordinated bonds issued by European banks.

2017). Following the resolution of BPE there is hardly any change in either senior or subordinated bank debt yield spreads, or in the EURO STOXX 600 European banking sector index, while following the winding up of the two Italian banks there is even some positive movement in the spreads and in banking sector share prices.

In the case of subordinated debt, it is interesting to analyse whether or not there have been changes in perceived risk in their main segments, namely Additional Tier 1 capital (AT1) issues and issues of debt considered Tier 2 capital (T2) or similar[2] which rank behind the former instruments in loss-absorbing processes (and have, therefore, lower risk). In view of the characteristics of the above-mentioned resolution processes, in which junior bondholders were fully bailed in and lost all their investment (with the exception of retail investors in the case of the Italian banks), part of the market could be expecting both kinds of instruments to receive similar treatment in future such episodes, meaning that the yield spread required of each market (larger in the AT1 market) could have narrowed.

In this respect, Chart B shows the interest rate spreads between T2 and AT1 instruments. Although the spreads widened in the week of the BPE resolution (higher yields required in the AT1 market), in the days that followed they returned to their previous levels. Spreads then narrowed gradually until August, when they widened again. This more recent behaviour seems to be consistent, at least in part, with the performance of bank shares in the same period, which rose up to August and then fell back again. Therefore, save at specific junctures, it seems there has been no change in perceived risk between the two kinds of issues.

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[2] Also includes Lower/Upper T2 issues.

The analysis of the resolution of BPE and of the winding up of BPV and VB is extended using granular data on individual issues to detect stress that is not visible in the indices that group together prices of multiple instruments. In this respect, Chart C depicts the distribution of the changes in price (expressed as a percentage of par value) of a broad sample of AT1 instruments and T2 or similar instruments in the week of the BPE resolution. Although few changes are observed in the centre of the distribution, the movements in the left tail are more pronounced, signalling an increase in the perceived risk of the debt of certain banks. This pattern may be in response to the unexpectedness of the resolution or the treatment received by junior bondholders, which may have aroused expectations of similar treatment by the European authorities for future resolutions. In any event, it should be noted that the price of the instruments hardest hit by the BPE resolution event have since recovered significantly (see Chart D).

The market performance following the winding up of BPV and VB is quite different. In this case, the distribution of the changes in price of these instruments immediately after the episode shows a sharp increase in some bond prices on the right tail of the distribution (see Chart E). In addition, and similarly to the situation following the BPE resolution, the bonds with the most negative response on those dates subsequently outperformed the sample as a whole (see Chart F). At first glance the market response may surprise, since as in the case of BPE, junior bondholders at both banks, with the exception of retail bondholders, were fully bailed in and lost all their investment.

Several factors may have helped to mitigate the stress arising from the winding up of BPV and VB, and even to have driven up certain bonds. First, these banks' bonds were already trading at a significant discount, so investors were anticipating a loss-absorption scenario. Second, the decision to wind up the banks included the sale of part of their business to a third bank, Intesa Sanpaolo, with public funds committed by the Italian government. Third, in 2016 the Italian banking sector had injected capital into BPV and VB through the Atlante fund and it was exposed to losses at the banks. Although the winding up process means that the capital supplied by the fund is also subject to losses, it limits the uncertainty surrounding possible further capital contributions by the Italian banking sector. Moreover, on 4 July 2017, it was announced that State aid would be provided for the rescue of Monte dei Paschi di Siena.[3] The presence of public funds in these processes sets them apart from the BPE resolution and could explain the more favourable response of some issues, especially the most stressed ones. However, this market response is possibly not taking into consideration other effects arising from the use of State aid, such as the impact on public finances, or other effects relating to links between the public and private sector.

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[3] On 4 July the European Commission (EC) approved the plan for a precautionary recapitalisation of Monte dei Paschi di Siena, setting out the details, which include an injection of €3.9 billion by the Italian government, in addition to the mandatory conversion into equity of the bank's junior bonds, for a sum of €4.3 billion. Previously, on 1 June, the EC announced that an agreement in principle had been reached in this respect.

Private-sector deposits grew by 0.7% at consolidated level thanks to an increase of 2.4% in the total volume of deposits abroad

Regarding retail funding, consolidated private-sector deposits grew by 0.7% in June 2017 compared with the same month of 2016 thanks to the favourable performance of deposits abroad, which increased by 2.4% in the period and offset the fall in total deposits in Spain (–1.1%). Thus the proportion of deposits abroad in the total increased slightly to 39.3% in June 2017 (see Chart 2.14).

The breakdown of deposits by type of counterparty differs across countries, the funding received from households being most noteworthy

Notable in the analysis by country shown in Chart 2.15.A is the volume of deposits in the United Kingdom (28% of total deposits abroad), the United States (13.4%) and Latin America (22.6%). The distribution of deposits by counterparty (Chart 2.15.B) is significantly uneven across geographical areas. Thus, while in the European countries retail funding from households (share of 68.7% in the United Kingdom) dominates, in the United States and Latin America funding is more evenly spread across counterparties.

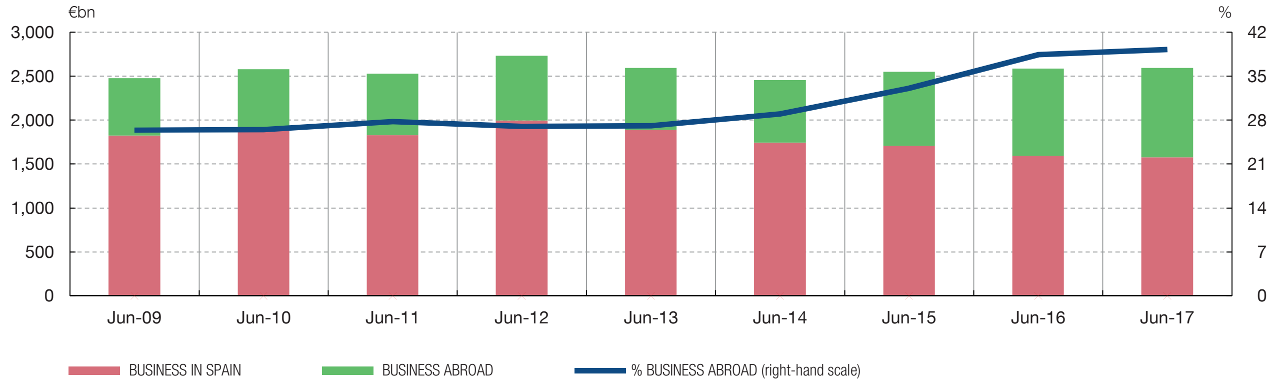
The liquidity coverage ratio of Spanish banks was 152%...

EBA's Risk Dashboard has recently incorporated information on the capacity of the major European banks to cope with possible liquidity tensions as measured by the Liquidity

INTERNATIONAL EXPOSURE. DEPOSITS

CHART 2.14

Deposit institutions



SOURCE: Banco de España.

...in June 2017, in line with the European average and well above the required minimum threshold

Coverage Ratio (LCR). This liquidity measure considers the liquid and high-quality assets held by banks to address the net outflows of cash which may occur in a severe stress scenario lasting 30 days. A ratio above 100% indicates that the bank has sufficient funds to cope with the cash outflows which may occur under the scenario in question. Chart 2.16 shows that Spanish banks had an LCR of 152% in June 2017, in line with the European average (146%) and well above the temporary threshold of 80% set in 2017 and the minimum level of 100% which will be required from 2018.

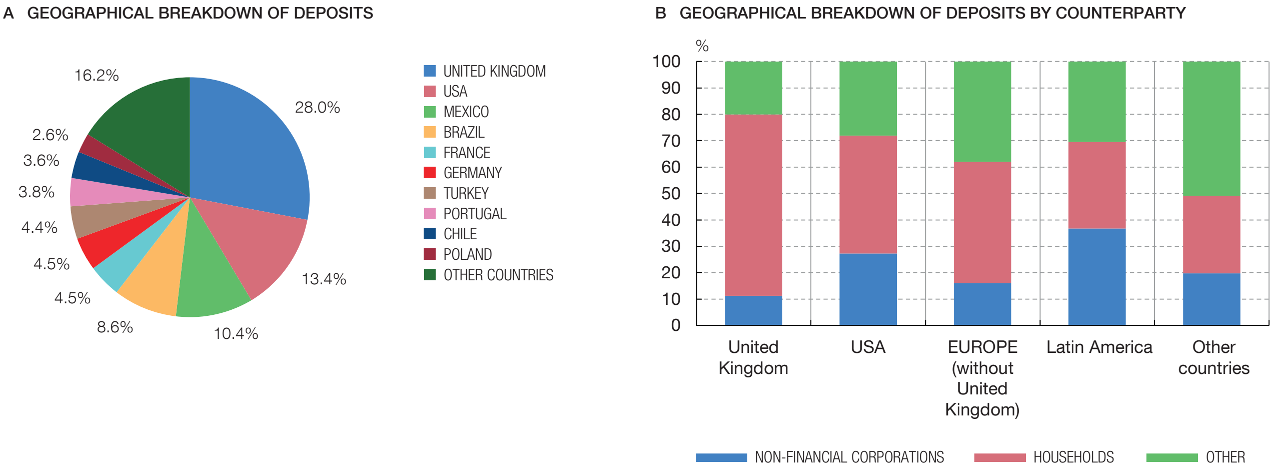
Retail deposits in Spain increased by 2.7%...

Retail deposits from households and non-financial corporations taken by deposit institutions in Spain increased by 2.7% in June 2017 with respect to the same month of the previous year. This rate is similar to that in June 2016 and to those seen since mid-2015, when the deposits of households and non-financial corporations began to recover despite a downward trend in interest rates. Despite the low yield of deposits, the lack of higher yielding investment alternatives with the same risk profile allowed the deposits of household and non-financial corporations to hold steady, although with a moderately upward trend, in recent times (see Chart 2.17.A).

INTERNATIONAL EXPOSURE. GEOGRAPHICAL BREAKDOWN OF DEPOSITS

CHART 2.15

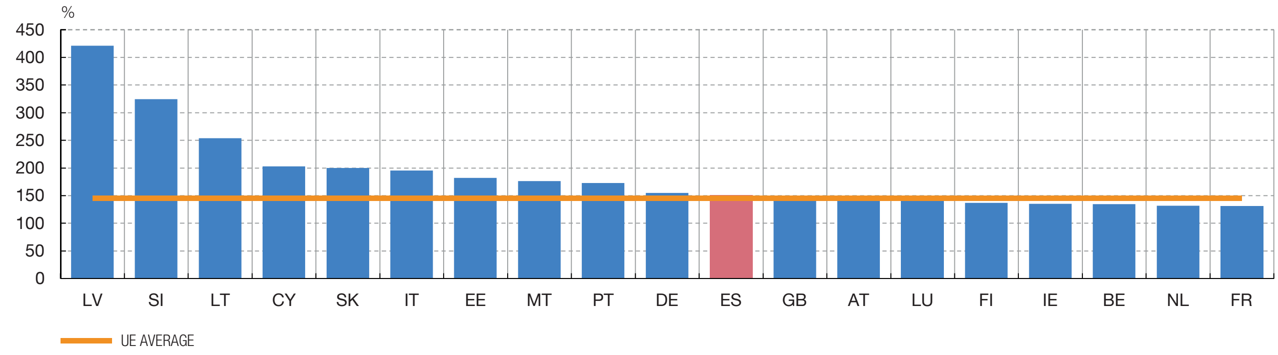
Deposit institutions. June 2017



SOURCE: Banco de España.

LIQUIDITY COVERAGE RATIO. EUROPEAN COMPARISON.
SSM countries and United Kingdom. June 2017

CHART 2.16



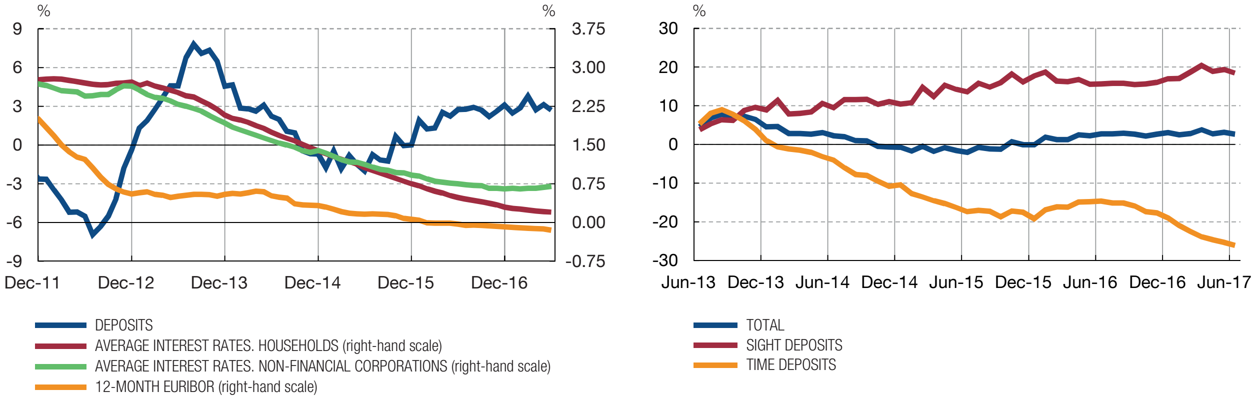
SOURCE: European Banking Authority.

...while sight deposits continued to increase at the expense of time deposits due to their low yields...

Owing to the aforementioned low yields on deposits by households and non-financial corporations, time deposits have decreased sharply in recent years, being replaced by sight deposits. This trend has also prevailed in the past 12 months. Thus, while time deposits decreased by 26.1% year-on-year in June 2017, sight deposits grew by 18.4% in same period. These rates of decrease and of increase were both higher than in the same month of the previous year (see Chart 2.17.B).

RETAIL FUNDING
Deposit institutions, ID

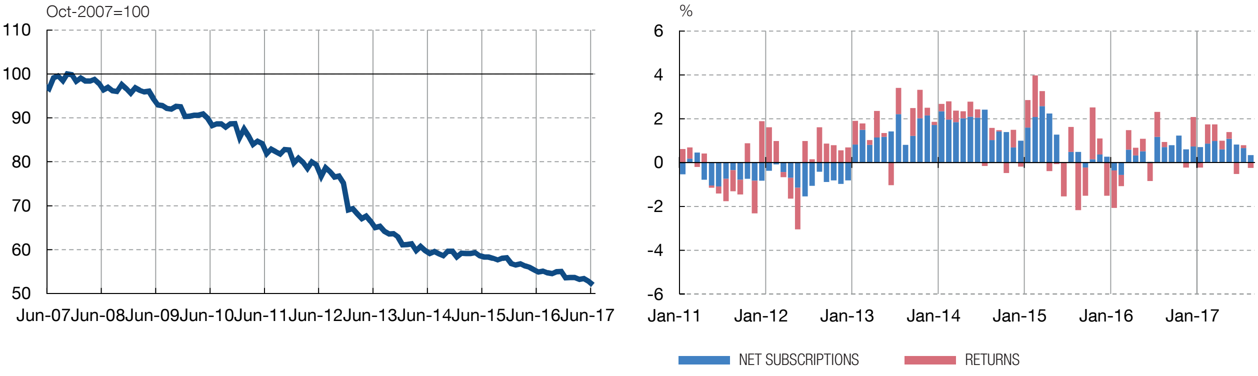
CHART 2.17


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

B DEPOSITS FROM HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS. Year-on-year rate of change

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: CNMV and Banco de España.

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

... and the loan-deposit ratio again decreased

The downward trend in lending and the recovery of resident private-sector deposits has allowed a significant ongoing decrease in the loan-deposit ratio in recent years, which has continued to be seen in the past 12 months. This ratio is near to half of its value in October 2007, when the peak of the whole series was recorded (see Chart 2.17.C).

The net assets of investment funds increased due mainly to net subscriptions

The net assets of investment funds increased by €18.2 billion in the first eight months of 2017, with a year-on-year rate of change of 12.6%. The total assets of investment funds reached €253.6 billion, driven mainly by net subscriptions, which contributed to the increase in total net assets of investment funds in all months of the year (see Chart 2.17.D). Yields also performed favourably in aggregate terms, although they progressively decreased after peaking in February and March 2017, even turning negative in June and August.

2.2 Profitability

The negative result between January and June was due to the loss at Banco Popular Español following its resolution

In the first six months of 2017, Spanish deposit institutions as a whole posted €3,878 million of consolidated losses attributable to the parent. This result was caused by the more than €12 billion of losses at Banco Popular Español following its resolution on 7 June. Box 2.4 describes in detail the specific steps involved in the resolution of this institution.

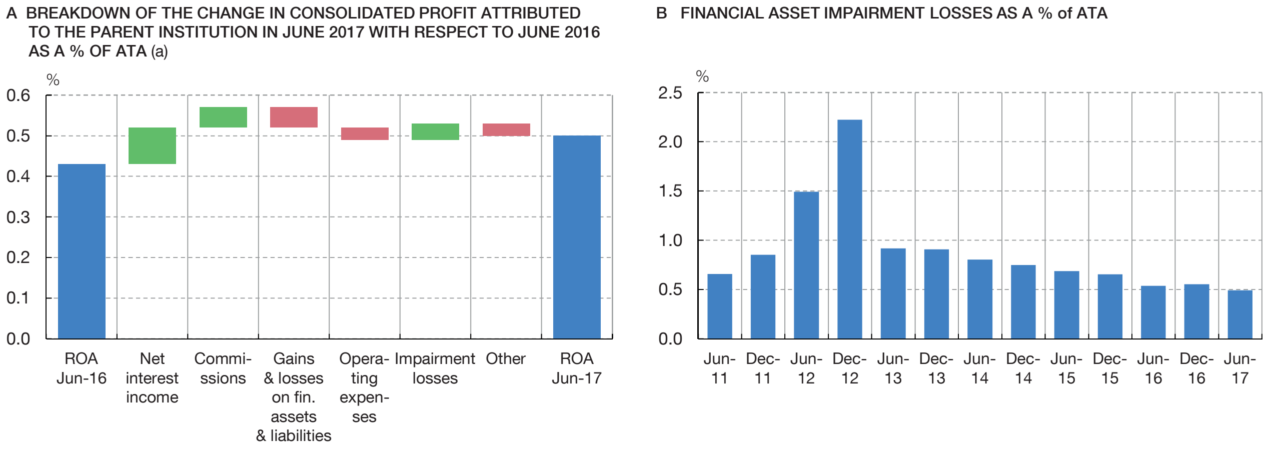
Excluding this institution, profits increased by 18.9% year-on-year, and ROA rose to 0.5%

To prevent the analysis of the income statement of deposit institutions as a whole from being distorted by the aforementioned case, this FSR examines the income statements of the rest of the system, that is, excluding the resolved institution. In order to ensure comparability with developments in the first half of 2016, the aforementioned institution has also been excluded from that period, so that the rates of change are calculated against comparable data (see Annex 2). The same applies to the analysis of the profitability of business in Spain. In these circumstances, deposit institutions as a whole obtained profits of €8,972 million attributable to the parent between January and June 2017, which is 18.9% more than in 2016 H1. This increase has led to a rise of 7 bp in the return on assets (ROA), from 0.43% in June 2016 to 0.5% in June 2017.

The contributions of the various items of the income statement to this increase in ROA are shown in Chart 2.18.A. On the positive side, net interest income and net commissions increased and impairment losses declined, while negative factors include the fall in gains and losses on financial transactions and the rise in operating expenses.

CONSOLIDATED PROFITABILITY
Deposit institutions

CHART 2.18



A BREAKDOWN OF THE CHANGE IN CONSOLIDATED PROFIT ATTRIBUTED TO THE PARENT INSTITUTION IN JUNE 2017 WITH RESPECT TO JUNE 2016 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 June 2017 with respect to June 2016.

On 6 June 2017 the European Central Bank (ECB), acting within the framework of the Single Supervisory Mechanism (SSM),[1] pursuant to Article 18(1) of Regulation 806/2014/EU, the Single Resolution Mechanism Regulation (SRMR), ruled that Banco Popular Español (BPE) was failing as a result of the serious difficulties it was facing.

The significant deterioration in the bank's liquidity situation led the supervisor, the ECB (acting within the framework of the SSM), to conclude that BPE would, in the near future, be unable to pay its debts or other financial liabilities on maturity, or in other words, that it was failing or likely to fail (FOLTF).

Exercising the powers conferred on it, the Single Resolution Board (SRB) ruled, in Decision SRB/EES/2017/08, that BPE met the conditions envisaged in Article 18(1) of the SRMR, including the absence of a private sector solution and the existence of public interest, and resolved, therefore, to declare BPE under resolution, proposing resolution arrangements indicating the measures to be applied.

The resolution arrangements established that the resolution tool to be applied was the sale of the business, in accordance with Article 24 of the SRMR, further to the write-down and conversion of equity instruments ensued (Article 21 of the SRMR). First, the instruments eligible for consideration as Common Equity Tier 1 (CET1) capital were written down, in order to create restricted reserves. At the same time, it was resolved to make a capital increase by conversion of the bank's Additional Tier 1 (AT1) instruments, which were subsequently written down to create restricted reserves. Lastly, it was resolved to make a capital increase to convert the Tier 2 (T2) instruments into new shares.

Upon completion of all the above, it was resolved (acting in accordance with the new legal framework for Recovery and Resolution of Credit Institutions and Investment Firms (Directive 2014/59/EU, the BRRD, and Regulation 806/2014/EU, the SRMR)), finally, to sell all the equity instruments to the purchaser, for a sale price of €1.

The resolution arrangements, approved by the European Commission on 7 June, in accordance with Article 18(7), was subsequently addressed to the FROB, the Spanish Executive Resolution Authority, in accordance with Articles 18(9) and 29 of the SRMR, for it to adopt all measures, exercising the powers conferred on it pursuant to Article 2(1)(d) of Law 11/2015, that would enable the correct application of the resolution procedure, complying with the principles and objectives inherent to its role.

Table A shows the flow of events and the competent authority at each decision stage.

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[1] The Banco de España forms part of the SSM and sits on the SRB in a non-voting observer capacity.

TABLE A
BANCO POPULAR ESPAÑOL RESOLUTION PROCESS

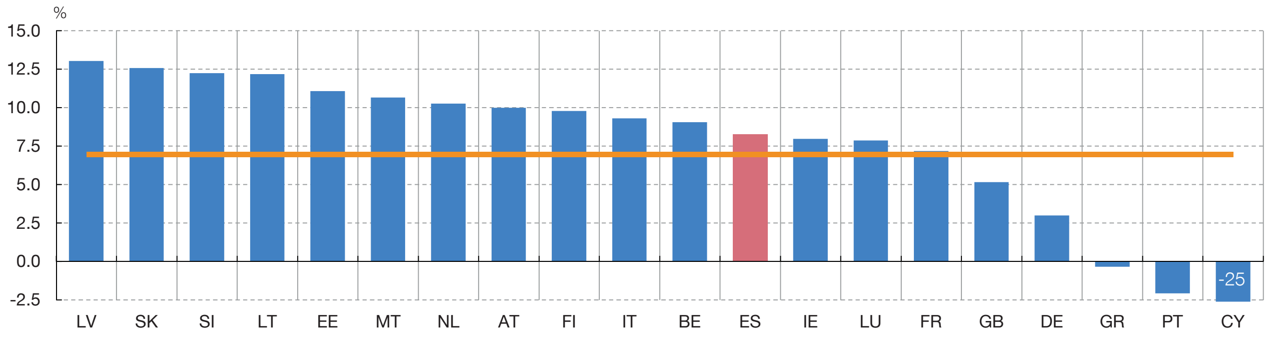
Non-viability	ECB, acting within the framework of the SSM	Determines the non-viability of the entity
Solution	SRB	SRB determines the resolution arrangements best suited to preserving financial stability, once all private sector measures have been exhausted
Approval of resolution arrangements	European Commission	Resolution arrangements approved by the European Commission
Implementation of resolution arrangements	FROB (Executive Resolution Authority in Spain)	FROB implements decisions taken by SRB for resolution of BPE, in accordance with objectives and principles of resolution

SOURCE: Banco de España.

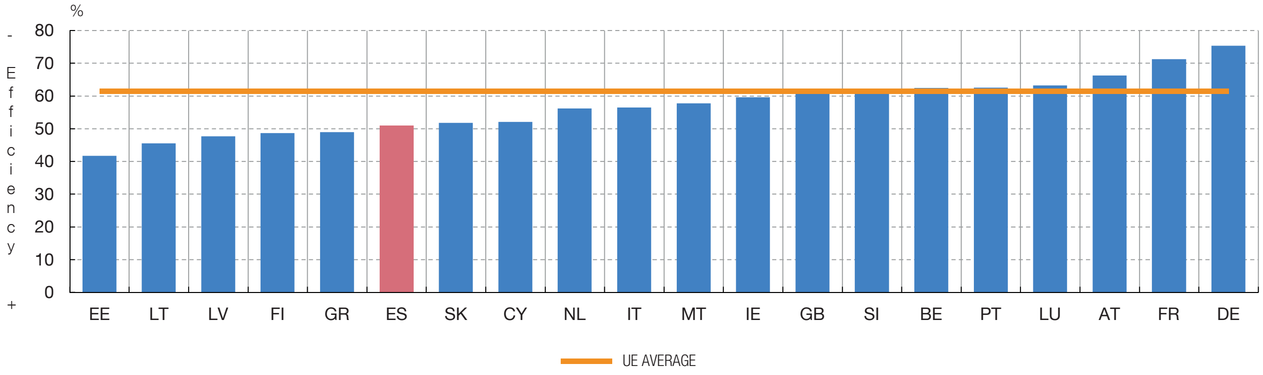
PROFITABILITY. EUROPEAN COMPARISON. SSM COUNTRIES AND UNITED KINGDOM. JUNE 2017

CHART 2.19

A ROE



B COST-TO-INCOME RATIO (a)



SOURCE: European Banking Authority.

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

Net interest income improved as a result of the containment of financial costs, and net commissions increased

Net interest income increased by 8% with respect to the same period a year earlier, largely owing to business abroad, as a result of the rise in financial revenue and, above all, the significant containment in financial costs (–7.2%). Although there is increasingly less scope to withstand further cuts (near-zero deposit remuneration), on average, institutions have managed to continue containing financial costs. This has led to the weight of net interest income in average total assets (ATA) increasing by 9 bp to 1.96% in the past year. Net commissions grew by 11%, their weight in the balance sheet also increasing, to 0.72%. There was a significant fall in gains on financial transactions (–16.1%), despite the improvement in exchange gains during this period, which has led to a reduction of 5 bp in the weight of this item in ATA, to 0.2%.

Operating expenses increased and impairment losses continued to decline

Operating expenses grew by 5%, contributing negatively to ROA and increasing their weight in ATA from 1.45% to 1.48% in the past year. Lastly, impairment losses continued to decline as in previous periods (–3.7% year-on-year), also decreasing as a percentage of ATA (see Chart 2.18.B), in line with the decrease in total consolidated non-performing assets and the total non-performing assets ratio (see Annex 1).

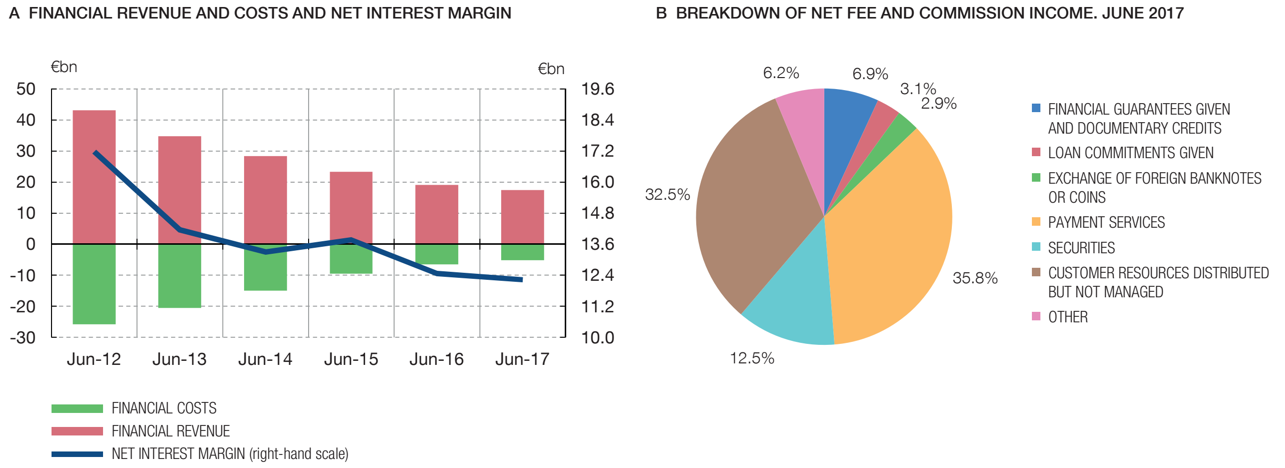
ROE increased by 70 bp to 7.1%

In keeping with ROA, the return on equity (ROE) increased by 70 bp in the past year to stand at 7.1%, compared with 6.4% in June 2016. Obviously, ROE would be negative (–3.1%) if the institution resolved in June is taken into account.

Compared with other European banking systems, the return on equity of the main Spanish banking institutions was 1.3 pp higher than the European average (7%) in June 2017,

PROFITABILITY
Business in Spain, ID. Deposit institutions

CHART 2.20



SOURCE: Banco de España.

outstripping those of French, British or German banks (see Chart 2.19.A). The improved profitability of Spanish institutions is partly due to their more favourable relative position in terms of the cost of resources used to generate income, measured through the cost-to-income ratio. As shown in Chart 2.19.B, Spanish institutions are significantly more efficient than the European average, with a cost-to-income ratio of 50.9%, compared with 61.5% of their European peers, and well above the ratios of Italy (56.4%), France (71.2%) or Germany (75.3%).

The recently approved merger of two institutions majority-held by the FROB, and the resolution of the aforementioned institution, will also contribute to improving the efficiency of the Spanish banking system and bringing its capacity into line with the new competitive environment. In order to continue improving their efficiency, institutions can undertake corporate operations to reduce overcapacity, ideally also internationally, for example, between institutions from different EU countries.

In business in Spain, there were marginal changes in both ROA and ROE...

With respect to business in Spain, according to the individual financial statements of deposit institutions, the return on assets (ROA) was somewhat higher than that of their consolidated activity (0.53% in June 2017, compared with 0.52% the previous year), while the return on equity was slightly lower than that of the consolidated groups, also declining slightly in the past year to 5.9%. If the institution resolved in June were not excluded, profitability would be clearly negative.

..., net interest income declined...

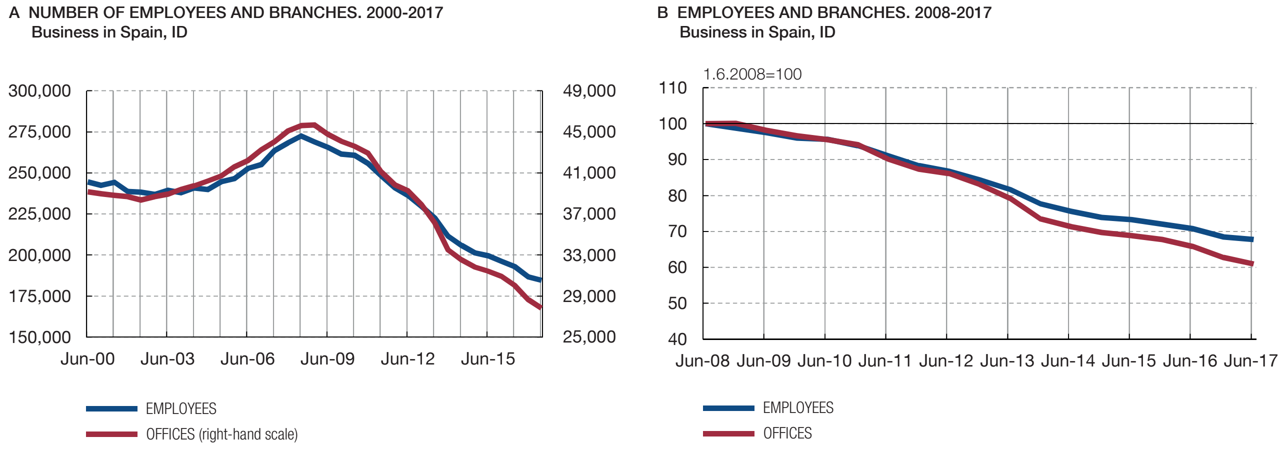
Net interest income in business in Spain fell by 1.8% year-on-year to stand at 0.97% of ATA, a somewhat higher weight than in the previous year (0.95%). Chart 2.20.A shows that net interest income has narrowed in recent years because the decrease in financial revenue has outweighed that in financial costs.

...and net commissions rose

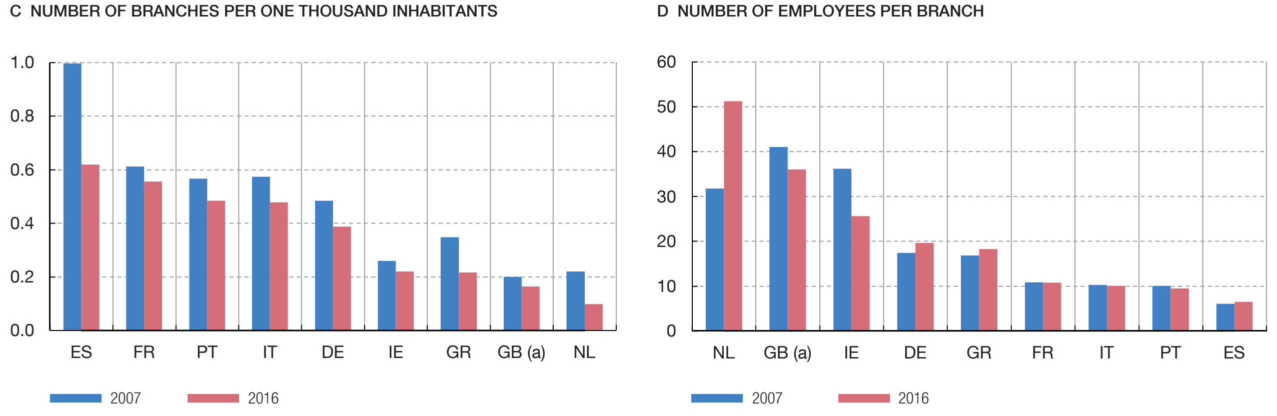
Net commissions have increased by 9.8% over the past year, largely owing to the strong growth of commissions associated with payment services (36% year-on-year) and despite the marked decline in commissions on the sale of banking products (–10% in June 2017). Together, these two types of commissions account for more than two thirds of total net commissions relating to business in Spain (see Chart 2.20.B).

EMPLOYEES AND BRANCHES. EUROPEAN COMPARISON

CHART 2.21


A NUMBER OF EMPLOYEES AND BRANCHES. 2000-2017
Business in Spain, ID

B EMPLOYEES AND BRANCHES. 2008-2017
Business in Spain, ID


C NUMBER OF BRANCHES PER ONE THOUSAND INHABITANTS

D NUMBER OF EMPLOYEES PER BRANCH

SOURCES: Banco de España, European Central Bank and Eurostat.

a Office data refer to December 2014.

Operating expenses continued to fall...

Operating expenses for business in Spain have decreased by 0.7% in the past year, following the downward trend observed in recent years. In the context of the observed containment of operating expenses, in 2017 institutions further adjusted their productive capacity through ongoing staff cuts and branch closures (see Chart 2.21.A). In June 2017, the number of branches in Spain was reduced by 7.4% year-on-year, while the number of employees fell by 4.3%. Chart 2.21.B shows the cumulative fall in the number of employees and branches of 32% and 39%, respectively, from their peak in 2008.

...owing to the significant cuts by Spanish institutions in employees and branch offices

It should be noted that the significant adjustments carried out by Spanish institutions have enabled them to bring their customer service capacity, measured in terms of branch offices per 1,000 inhabitants, closer to the ratios of other European countries. Despite the notable effort, Spain remains at the head of the key EU countries with a ratio of 0.62 branch offices per 1,000 inhabitants (see Chart 2.21.C). Although the number of branch offices of Spanish institutions is higher in per capita terms, their size is the smallest with respect to comparable countries, with barely 6.5 employees per office (see Chart 2.21.D). This figure is slightly higher than that observed in 2007 (6.1 employees per office), which reveals a slight tendency towards increasing the size of branch offices as their numbers are reduced. Box 2.5 provides a more in-depth analysis of the changes in the number of bank branches in Spain, in relation to the size of the population of the municipalities in which they are located.

ACCESS TO THE SPANISH BANK BRANCH NETWORK BY SIZE OF MUNICIPALITY

BOX 2.5

Since 2008, the Spanish banking system has been undergoing a significant reduction in capacity. Among other factors of production, this has involved an adjustment in the number of branches serving customers. Thus, for example, the total number of branches of deposit institutions stood at 27,811 in June 2017, as against 45,084 in December 2007, a decline of 38%. However, the reasons for and the severity of the decline, as well as the consequences for people's access to financial services, are not uniform across Spain, but vary according to the size of the municipality in question.

Charts A and B show, for 2016, the distribution of bank branches and of the Spanish population,[1] according to the number of inhabitants of the municipality in which they are situated. As seen in the charts, the proportion of branches in municipalities with a population of up to 10,000 is higher than the weight of these municipalities in terms of population. This means that, due to their limited size, the smallest municipalities require a larger effort from banks, in terms of geographical presence, to give their inhabitants access to the banking network.

Chart C, meanwhile, shows how the number of branches per 1,000 inhabitants has changed since 1998, for Spanish municipalities grouped according to their size. As seen in the chart, the reduction in the number of branches per 1,000 inhabitants has not been solely a result of the capacity adjustments triggered by the economic crisis that began in late 2007. Rather, it has also been part of a process that, in small municipalities (those with a population of up to 20,000), has been taking place since at least 1998, with falls of between 2% and 8% over the period 1998-2007. These developments contrast with those seen during the same period in the largest municipalities (those with a population of more than 20,000), in which the number of branches per 1,000 inhabitants had increased by around 9% by 2008. The economic crisis was a turning point for the banking sector, instigating significant concentration operations and general adjustments in institutions' capacity. Since 2008, as also seen in Chart C, it has been these large municipalities that have witnessed the largest reductions in the number of branches per head, precisely the ones that had experienced the largest increases in the previous decade.

Charts D, E and F allow us to analyse the process of bank capacity adjustment in greater detail during the period analysed as a whole (Chart D) and during the sub-periods 1998-2007 (Chart E) and 2007-2016 (Chart F). These charts show how the adjustment in branch numbers in municipalities is related to the change in their population, grouping municipalities according to the number of their inhabitants in 1998.[2] Chart D shows that the reduction in the number of branches since 1998 is a phenomenon that has affected all Spanish municipalities, although with varying degrees of intensity. The sharpest declines are seen in the smallest municipalities (with up to 500 inhabitants). These municipalities also stand out as being the only ones to suffer a net decline in population between 1998 and 2016, against the background of rural population decline which Spain has been experiencing for decades. In the case of medium-sized and large municipalities, the adjustment in bank capacity, with a reduction in the number of branches of 16%-31%, contrasts with the growth in population, at rates of 1%-27%.

Distinguishing between periods, Chart E allows us to analyse developments in bank capacity between 1998 and 2007, a period of economic expansion and rapid credit growth. The chart shows that the change in the number of branches varied according to the size of the municipality. In the smallest municipalities (up to 1,000 inhabitants) the number of branches decreased despite the mild growth in population in municipalities with more than 100 inhabitants. Municipalities of between 1,000 and 10,000 inhabitants saw growth in the number of branches, although at a slower rate than the growth

Chart A

DISTRIBUTION OF BANK BRANCHES BY SIZE OF MUNICIPALITY (IN TERMS OF POPULATION). 2016

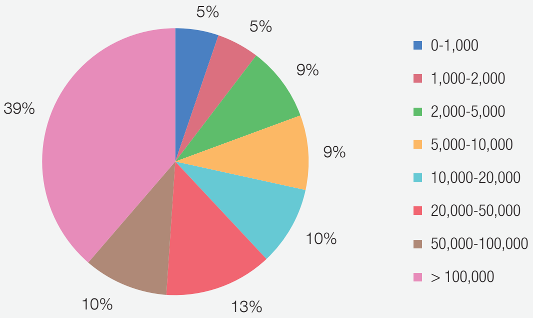
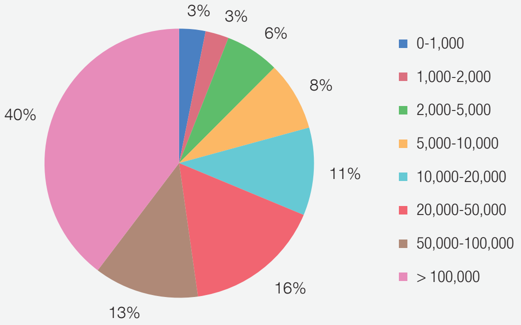


Chart B

DISTRIBUTION OF POPULATION BY SIZE OF MUNICIPALITY (IN TERMS OF POPULATION). 2016



SOURCES: Banco de España and INE.

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[1] The population data used come from the continuous population register statistics published by the INE. The end-2015 population data are used for 2016 owing to the unavailability of data for that year.

[2] To avoid the number of branches of a particular group of municipalities changing as a result of the reclassification of municipalities due to population losses or gains during the period considered, it was decided to maintain the assignment of each municipality to a particular population interval in accordance with the population in 1998.

Chart C
BRANCHES PER 1,000 INHABITANTS BY SIZE OF MUNICIPALITY. 1998-2016

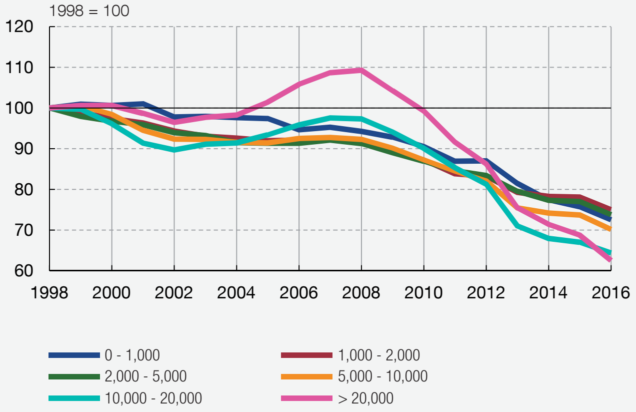


Chart D
GROWTH IN POPULATION AND NUMBER OF BRANCHES BY SIZE OF THE MUNICIPALITY. 1998-2016

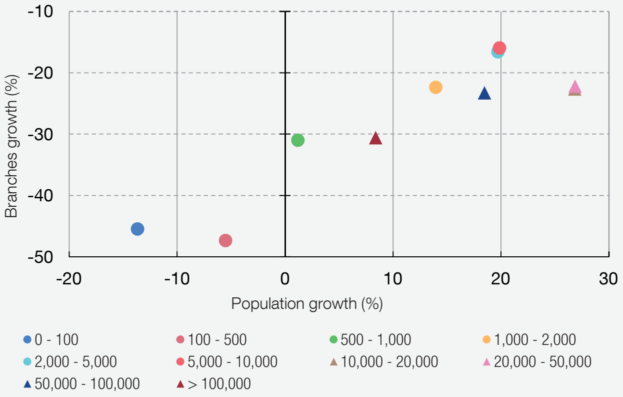


Chart E
GROWTH IN POPULATION AND NUMBER OF BRANCHES BY SIZE OF THE MUNICIPALITY. 1998-2007

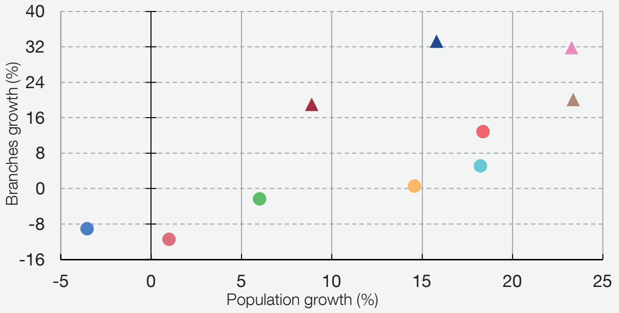
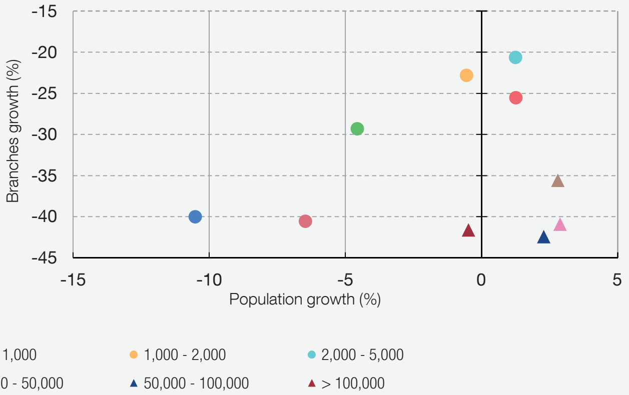


Chart F
GROWTH IN POPULATION AND NUMBER OF BRANCHES BY SIZE OF THE MUNICIPALITY. 2007-2016



SOURCES: Banco de España and INE.

in population. In the largest municipalities, the growth in the number of branches, at rates of 19%-33%, matched or even exceeded the population growth during these years of 9%-23%.

Chart F, on the other hand, focuses on the period 2007-2016. In this period, characterised by economic crisis and the subsequent recovery, there was a fall in the number of branches in all the municipality categories, although there was a difference between small and large towns. In small municipalities the rate of fall stood between 21% and 41%, the smaller the municipality and the larger the reduction in terms of population the larger the fall. In the case of municipalities with more than 10,000 inhabitants, the reduction in capacity ranged from 36% to 42%, a more marked decline than in the smaller municipalities, despite the increase in population in medium-sized towns during this period.

To sum up, these charts show that capacity reduction at Spanish banks over the last two decades has been a consequence of two separate processes. On one hand, the loss of branches in the smallest municipalities has been a consequence, at least in part, of the loss of inhabitants suffered by these municipalities as a result of the rural population decline in Spain. On the other hand, this demographic process has been accompanied in recent years by bank capacity adjustments in response to the economic crisis and to the consequences of the crisis for the sector. In this context of restructuring of the industry, the reduction in branch numbers in medium-sized and large cities is notable.

Finally, in order to determine the extent to which the reduction in bank capacity in the period 2007-2016 has affected people's access to financial services, Charts G and H show the percentage of inhabitants and municipalities without access to a bank branch. As seen in these charts, access to a bank branch in the smallest municipalities (with up to 500 inhabitants) was already very limited in 2007, when the total number of bank branches in Spain was close to its peak, and this situation remained the same in 2016. For example, the percentage of the population of municipalities with 100-500 inhabitants that had no access to a branch was 70% in

ACCESS TO THE SPANISH BANK BRANCH NETWORK BY SIZE OF MUNICIPALITY (cont'd) BOX 2.5

2007, and 75% in 2016 (see Chart G). In municipalities with 500-1,000 inhabitants the capacity adjustment has had a more significant effect on the population's access to financial services. In particular, the proportion of the population without access to a branch rose from 27% in 2007 to 39% in 2016 (Chart G). In terms of municipalities without a bank branch the impact is similar, as these rose from 28% in 2007 to 40% in 2016, in the case of the same group of municipalities, with a population of 500-1,000 inhabitants (Chart H). The change in access to the branch network, between 2007 and 2016, in municipalities with 1,000-10,000 inhabitants was very small.

In terms of the Spanish population as a whole, the percentage of people without access to a bank branch in their municipality of residence has risen from 2% in 2007 to 2.5% in 2016 (Chart G), although the number of municipalities without a bank branch increased by somewhat more during this period, from 44% to 50% (Chart H).

Chart G
POPULATION WITHOUT ACCESS TO A BANK BRANCH IN THEIR MUNICIPALITY. 2007-2016

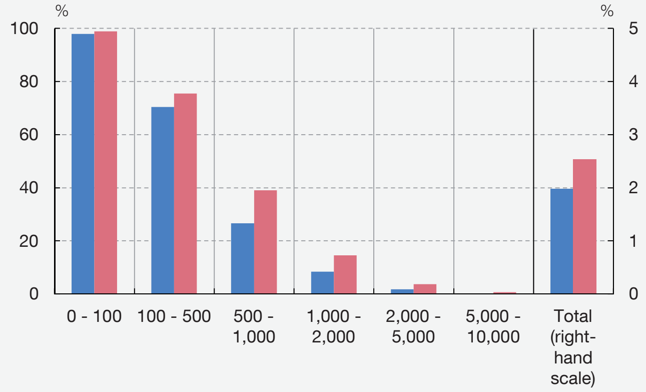
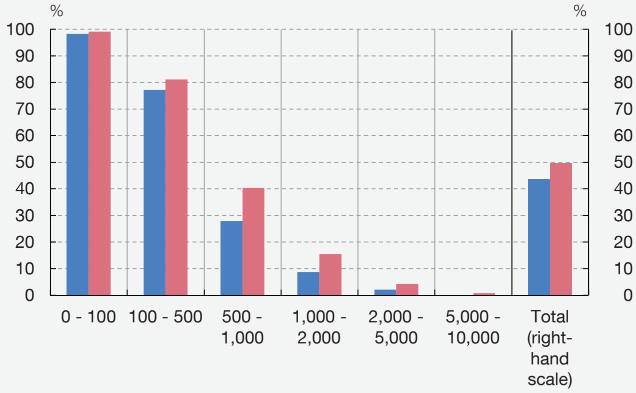


Chart H
MUNICIPALITIES WITHOUT ACCESS TO A BANK BRANCH. 2007-2016



🟦 2007 🟥 2016

SOURCES: Banco de España and INE.

Technological innovation will be a challenge for institutions in the coming years, bringing both business opportunities and competition from new operators know as "fintechs"

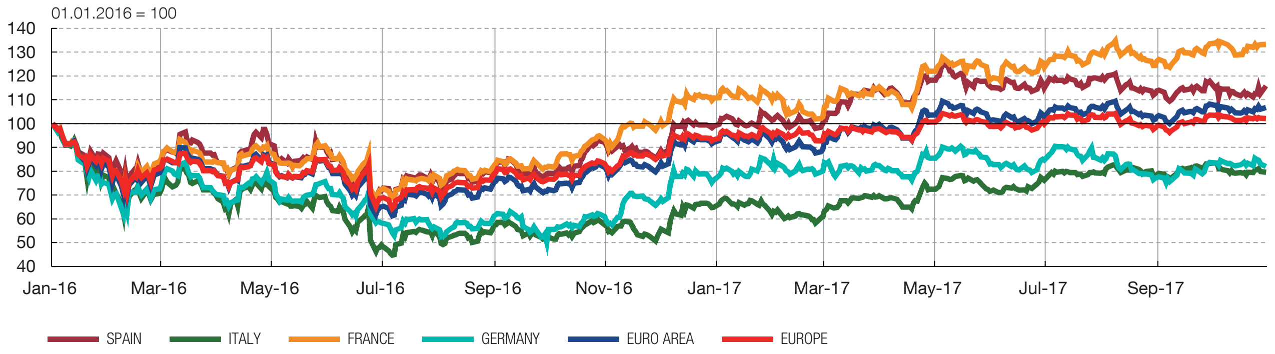
In the context of profitability, mention must be made of the technological innovation process which is already affecting the banking sector in different ways and is one of the main challenges facing institutions in the coming years. This challenge has two distinct dimensions: on the one hand, it presents institutions with great opportunities both as regards cost-reduction potential in the medium term, and the possibility of broadening the range and quality of services to customers. However, such innovation is not straightforward since it may require institutions to undertake major organisational and management changes, as well as substantial investments in technology and a new corporate culture. On the other, the traditional banking business faces increasing competition from new operators known as «fintechs». This challenge has led some institutions to step up their investments in technology in an attempt to counter the impact of these new firms (including by acquiring them), resulting in sizeable investments the returns on which are still uncertain and which may require lengthy maturity processes. Such uncertainty is heightened by the drive for technological change currently under way in the banking sector, among others, which may bring about a major transformation in the medium term.

Undoubtedly, in areas competing for traditional services, such as the provision of credit, experience and market expertise will give a competitive edge to banking institutions better able to exploit the advantages of technological developments in the form of more direct and quicker access to their customers. However, in the provision of certain other

MARKET INFORMATION
European comparison

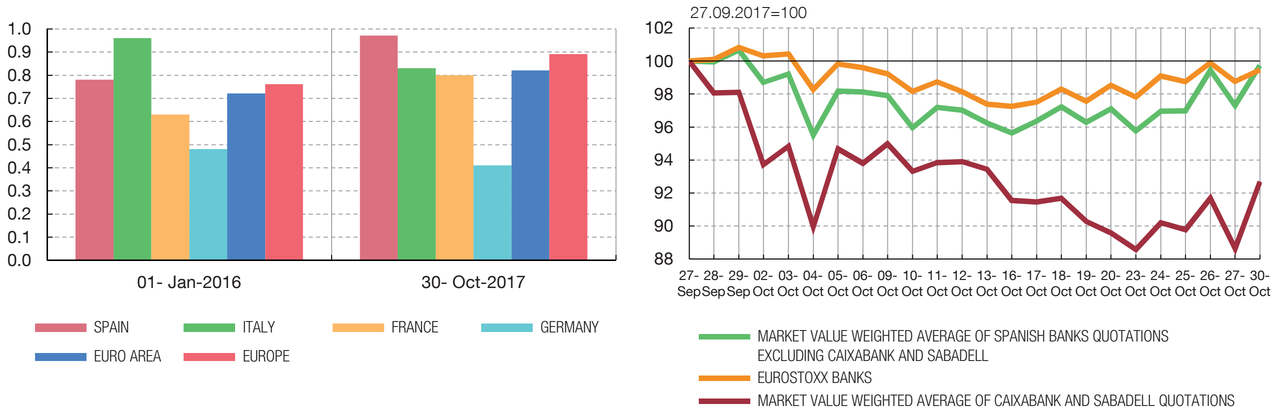
CHART 2.22

A BANKING STOCK MARKET INDICES



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

C BANKING STOCK MARKET INDICES



SOURCE: Datastream.

complementary services, mostly relating to payment operations, this advantage may disappear, with the subsequent reduction of the business volume and its impact in terms of profitability.

In any case, as mentioned in previous FSRs, the process of technological innovation does not come without risks, not only those arising from finding and realising new and profitable investments, but also traditional risks such as credit risk (arising from the use of different mobile devices and new technological channels to easily access new customer strata such as the younger population), and others (data privacy and protection, fraud, greater interconnectedness or even cyber-attacks), generally compounded by the speed at which the changes are taking place.

The higher profits have led to a favourable stock market performance of Spanish institutions in the past year...

Although the profitability of deposit institutions has remained under considerable pressure, the increase in profits with respect to the previous year has enabled Spanish institutions to perform favourably on the stock market in the past year. Specifically, since end-October 2016 to end-October 2017, the stock market value of Spanish institutions rose by 26%, in line with the average of the European financial institutions(see Chart 2.22.A). Since the beginning of 2016, and despite a very unfavourable situation in the early part of that year, Spanish institutions have posted an increase of 16% in their stock prices, notably above average for euro area institutions (7%) or European institutions as a whole (2%). The price to book value ratio has since increased for Spanish institutions to stand at a level close to one in October 2017. This ratio is clearly higher than the European banking sector average (see Chart 2.22.B).

...interrupted in October in the case of Spanish banks and, especially, in that of banks previously registered in Catalonia

The favourable trend was interrupted in early October. Chart 2.22.C shows how the lack of stability has affected Spanish institutions, particularly those previously registered in Catalonia, leading them to take their headquarters elsewhere.

2.3 Solvency

The CET1 ratio fell in June 2017 to 11.9%...

As Chart 2.23 shows, in June 2017 the ratio of highest-quality capital, common equity tier 1 (CET1), stood at 11.9%, a decrease of 72 bp with respect to the ratio reached in June 2016 (12.6%). The tier 1 capital ratio stood at 12.3% (compared with 12.8% a year earlier), and the total capital ratio at 14.4% (14.6% in June 2016).[3]

...despite the slight decline in risk-weighted assets

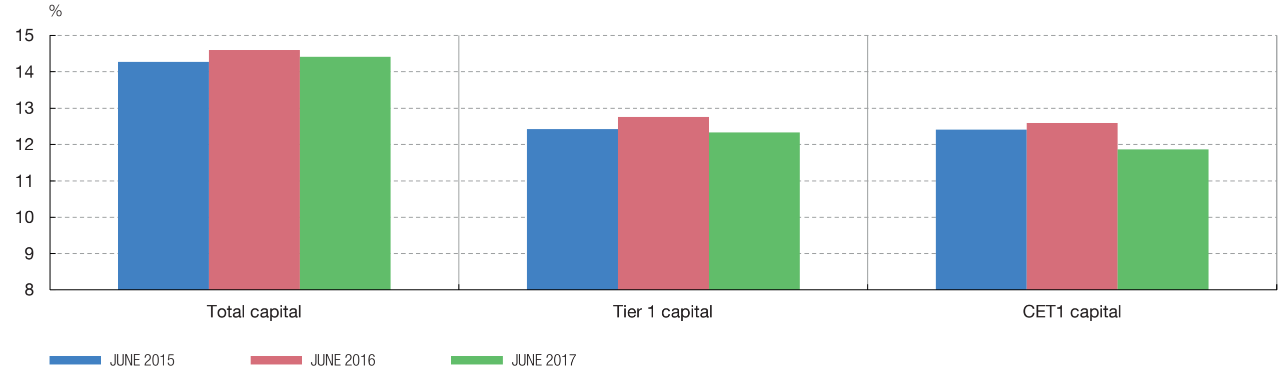
The lower solvency ratios were the result of a decline in the level of CET1 capital, which could not be offset by the increases in additional tier 1 (AT1) and tier 2 (T2) capital, or by the lower volume of risk-weighted assets (RWAs) (see Chart 2.24.A). The numerator of the solvency ratios can be explained by the predominance of CET1 in the composition of own funds, which in June 2017 accounted for 82% of the total (see Chart 2.24.B). Additional tier 1 capital (which counts as tier 1 capital but not as CET1) represented 3% of own funds and tier 2 capital accounted for the remaining 15%.

Most of CET1 is made up of equity instruments and reserves

Chart 2.24.C. gives a breakdown of the composition of CET1 in terms of RWAs. As the chart shows, equity instruments are the main component of this measure of capital (47%), followed by reserves (36%). Minority interests and other represent 10% of CET1, while transitional adjustments declined to 6% in June 2017, as Basel III is gradually implemented.[4]

CAPITAL RATIOS
Deposit institutions

CHART 2.23



SOURCE: Banco de España.

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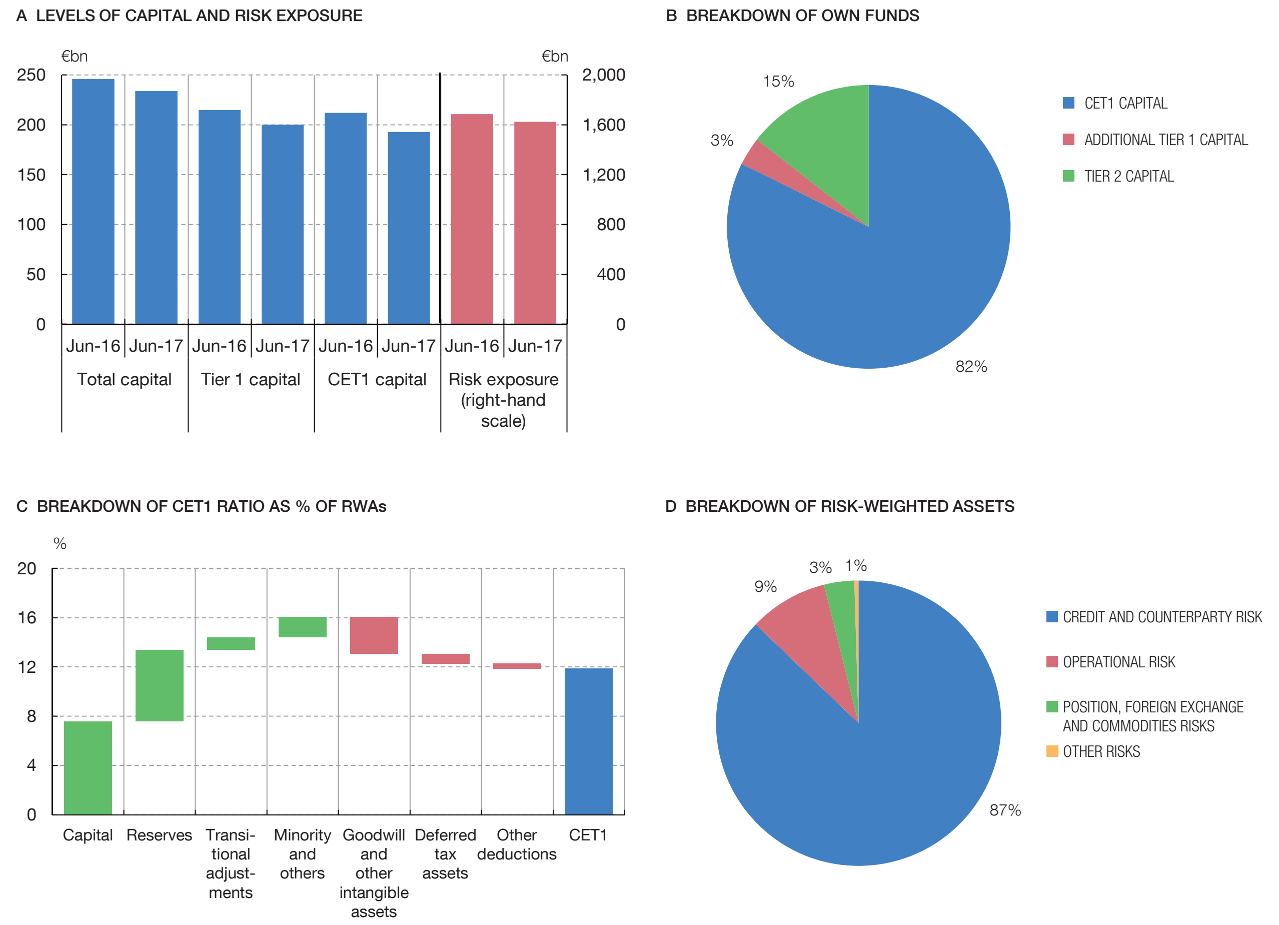
[3] It should be noted that the solvency position in recent months has been conditioned by the resolution of Banco Popular Español in June 2017, following which the acquiring institution carried out a capital increase of €7 billion in July in order to improve the solvency of the institution resulting from the acquisition. The solvency measures reported in this FSR refer to June 2017 and therefore do not take into account the capital increase. This, together with the losses at Banco Popular Español in June 2017, would largely explain the decline in the solvency ratios.

[4] The ratios take into account the gradual transitional adjustments designed to facilitate the progressive implementation of Basel III. The implementation timetable establishes generally in 2017 that 80% of the amounts of deductions will be deducted from common equity, while the remaining 20% will be deducted from additional tier 1 capital.

BREAKDOWN OF OWN FUNDS AND RISK-WEIGHTED ASSETS
Deposit institutions. June 2017

CHART 2.24


A LEVELS OF CAPITAL AND RISK EXPOSURE

B BREAKDOWN OF OWN FUNDS

C BREAKDOWN OF CET1 RATIO AS % OF RWAs

D BREAKDOWN OF RISK-WEIGHTED ASSETS

SOURCE: Banco de España.

Credit and counterparty risk account for 87% of total RWAs

As regards the composition of risk-weighted assets (the denominator of the solvency ratios) credit and counterparty risk constitute the bulk (87%) of total RWAs, followed by operational risk (9%) and position, foreign exchange and commodity risks (3%). The remaining risks barely represent 1% of institutions' total RWAs (see Chart 2.24.D).

2.4 Forward-looking assessment of the Spanish banking system's resilience to adverse macroeconomic scenarios

The Banco de España has an internal tool used to prospectively analyse the resilience of Spanish institutions in terms of solvency and liquidity under different macroeconomic scenarios. This tool underpins the stress tests conducted by the Banco de España at Spanish deposit institutions, in line with other tests conducted internationally, for example the US Comprehensive Capital Analysis and Review (CCAR) or the European stress tests coordinated by the EBA.

FLESB framework for stress testing

The FLESB is a constantly evolving stress-test framework

The stress tests developed by the Banco de España are based on a tool with a top-down approach, which employs homogeneous methodological assumptions defined by the national regulator and uses highly granular data. This analysis framework is known as the FLESB (Forward Looking Exercise on Spanish Banks). The main features of this tool were described in the November 2013 FSR.[5] Since then, the Banco de España has improved the stress test methodology, in terms of both the data used and the main calculation methods employed, and the scope of the risks considered.

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[5] See Financial Stability Report, Banco de España: https://www.bde.es/f/webbde/Secciones/Publicaciones/InformesBoletinesRevistas/InformesEstabilidadFinancera/13/IEF_Ing_Noviembre2013.pdf

The stress tests carried out in the FLESB framework use macroeconomic scenarios that have to be stringent but plausible.[6] The impact of such scenarios on the balance sheet and business of banking institutions is projected using different auxiliary models, most notably those for calculating expected credit losses over a specific time horizon. This impairment of exposures is then compared with loss-absorbing items, such as existing provisions, estimated profit before provisions for the analysis time horizon and the excess capital available.

In the current exercise, the FLESB framework has incorporated a liquidity test based on the LCR

As part of the ongoing efforts to improve the FLESB, the 2017 exercise incorporates an analysis of the liquidity position of each institution, based on the liquidity coverage ratio (LCR). This analysis is in response to the growing interest in assessing the strength of financial institutions not only in terms of solvency but also in terms of an asset structure which is sufficiently balanced to withstand restrictions on, or even falls, in funding sources and increased market volatility. Although they are complementary, the solvency and liquidity analyses carried out within the FLESB framework use different methodologies and scenarios, defined with a view to identifying institutions' specific vulnerabilities.

For the solvency test, three scenarios were considered: a baseline scenario, which is the best estimate of future macroeconomic conditions, and two alternative adverse scenarios which reflect an economic environment worse than that of the baseline stress scenario. These scenarios are the same as those used by the IMF in the stress test exercise performed on the Spanish banking system as part of the FSAP, which assesses the situation of the Spanish financial system as a whole. As the two adverse scenarios show similar impacts on the CET1 ratio, this report shows only the results obtained for the baseline scenario and the adverse scenario with less favourable developments in GDP. This variable is used to summarise the change in the level of stress between the adverse and baseline scenarios, although both comprise a wider set of variables (unemployment rate, interest rates, house prices, etc.). The starting point for the stress test exercise is December 2016 and the time horizon covers the years 2017, 2018, 2019.

The adverse macroeconomic scenario used in the FLESB exercise includes a significant level of stress, with a sharp decline in GDP in Spain

Chart 2.25 compares GDP growth over the time horizon of the exercise in the baseline and adverse scenarios. The adverse scenario shows negative growth of –1.9% and –3.0% for 2017 and 2018, compared with positive growth expected for the baseline scenario. Positive growth is only projected for the two scenarios in the last year of the exercise, albeit lower in the adverse scenario. In cumulative three-year terms, there is growth of 6.6% in the baseline scenario and of –3.5% in the adverse scenario. The accumulated difference of more than 10 percentage points between the two scenarios is an additional indicator of the severity of the adverse scenario.

Results of the FLESB methodology: solvency

Solvency assessments are performed for institutions with significant international activity, other SSM institutions and less significant institutions

The Spanish banking system is heterogeneous as regards the degree of international exposure and size of its institutions, which can be classified into different groups depending on these variables. Since institutions belonging to different groups show varying degrees

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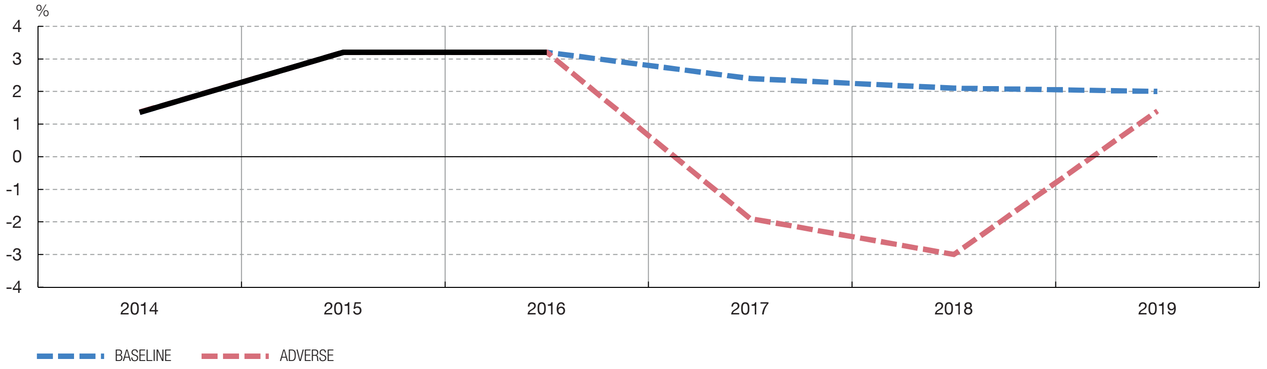
[6] The need for the scenarios to be plausible is not an obstacle to exploring scenarios that do not provide probable economic performance forecasts. The main objective of using extreme scenarios is precisely to assess the impact on institutions' solvency of a hypothetical shock involving a certain deviation of the macroeconomic variables from the baseline scenario.

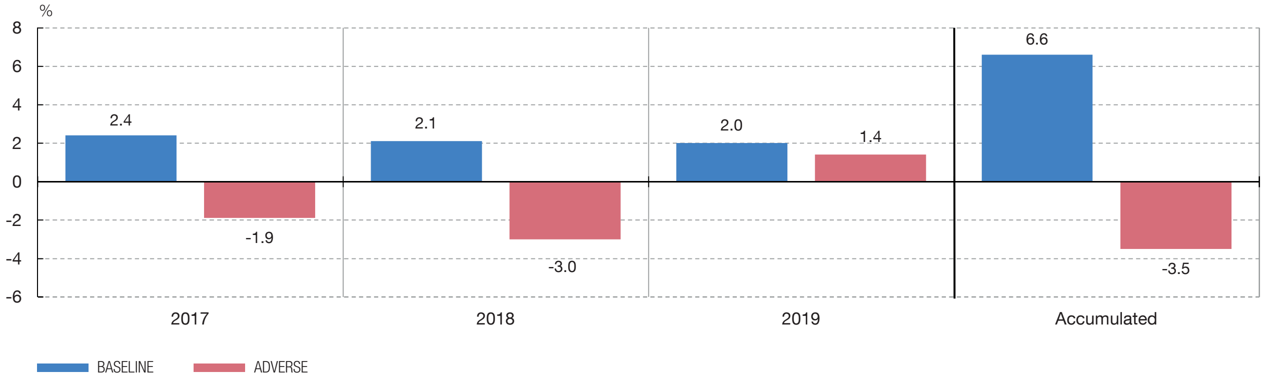
GDP GROWTH FORECAST UNDER BASELINE AND ADVERSE SCENARIOS

CHART 2.25

A GDP GROWTH UNDER BASELINE AND ADVERSE SCENARIOS



B GDP YEAR-ON-YEAR GROWTH FORECAST UNDER BASELINE AND ADVERSE SCENARIOS



SOURCE: Banco de España.

of exposure to different sources of risk, it is reasonable to assess the results of each of these groups separately.

First, institutions with significant international activity are considered.[7] The FLESB framework analyses business in Spain, among other things, by calculating the expected losses on individual exposures, on the basis of the highly granular data available. Business abroad, for which available data is less granular, is analysed on the basis of income statement projections and, particularly, the net income or loss generated in each of the main foreign subsidiaries. This projection is based on international macroeconomic variables included in each scenario considered.

The remaining institutions, those without significant international activity, are divided in turn into those forming part of the Single Supervisory Mechanism (SSM), which are larger and more complex (significant institutions), and the rest, which are under the direct supervision of the Banco de España (less significant institutions). This division of institutions into groups is the same as that used in the forward-looking solvency assessment of deposit institutions included in the November 2016 FSR.[8]

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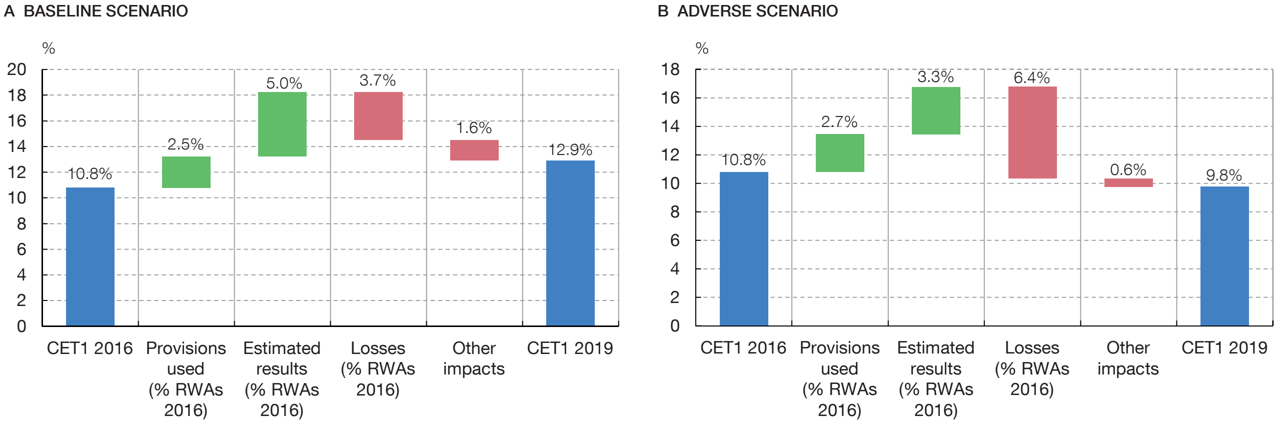
[7] In accordance with Commission Implementing Regulation (EU) No. 680/2014 of 16 April 2014 laying down technical standards with regard to supervisory reporting of institutions, an institution is deemed to engage in significant international activity when exposures abroad and in all exposure categories equal or exceed 10% of total exposures. In this connection, three institutions have been identified as meeting this condition which, as at December 2016, accounted for 65.5% of the total assets of the Spanish banking system at consolidated level.

[8] See: https://www.bde.es/f/webbde/Secciones/Publicaciones/InformesBoletinesRevistas/InformesEstabilidadFinancera/16/FSRNovember2016.pdf

IMPACT ON FULLY-LOADED CET1 RATIO. INSTITUTIONS WITH SIGNIFICANT INTERNATIONAL ACTIVITY

CHART 2.26



SOURCE: Banco de España.

For each group of institutions, the impact of the scenarios on the fully loaded CET1 ratio[9] is shown in the time horizon of the exercise under the baseline scenario (scenario more likely to occur) and the adverse scenario (with very low probability of occurrence). The accumulated effect of gross credit losses and of the use of existing provisions in the 2017-2019 period is detailed, both items in relation to business in Spain and shown as a percentage of RWAs in 2016. The accumulated effect of estimated results[10] (on RWAs in 2016) is shown separately, as are the other effects on the CET1 (tax effects, changes in RWAs, distribution of results, etc.).

Institutions with significant international activity improved their fully-loaded CET1 ratio by 2.1 pp in the baseline scenario...

Chart 2.26 shows a substantial improvement in the solvency of institutions with significant international activity under the baseline scenario. The fully-loaded CET1 ratio increases from the starting point of 10.8% to 12.9% in 2019, as a result of significant income generation (5% of RWAs), and a contained volume of gross losses in Spain (3.7% of RWAs) that is largely offset by the use of existing provisions (2.5% of RWAs). The higher exposure and the tax paid on the income generated under the baseline scenario contribute to the negative impact of the remaining factors, reducing the ratio at the end of the exercise by 1.6 pp.

…while in the adverse scenario, their fully-loaded CET1 ratio fell by 1 pp to stand at 9.8 % in 2019

In the adverse scenario, a fall of one percentage point is observed in the CET1 ratio for this group of institutions. The adverse macroeconomic conditions of this scenario give rise to a higher volume of losses (6.4% of RWAs) and substantially reduce the ability to generate income (3.3% of RWAs), which is not sufficient to absorb losses, despite more intensive use of existing provisions (2.7% of RWAs). In view of the weaker growth of RWAs under the adverse scenario and the lower amount of distributable income, the negative impact of the remaining factors is less marked, with a decline of only 0.6 pp in the CET1 ratio.

The fully-loaded CET1 ratio of other institutions under direct SSM supervision increases by 0.8 pp under the baseline scenario…

The impact of these scenarios on other remaining institutions under the direct supervision of the SSM is shown in Chart 2.27. Under the baseline scenario, there is an increase of 0.8 pp in the CET1 ratio between 2016 and 2019, less than that observed for institutions with significant international activity. This is largely due to the greater negative contribution of

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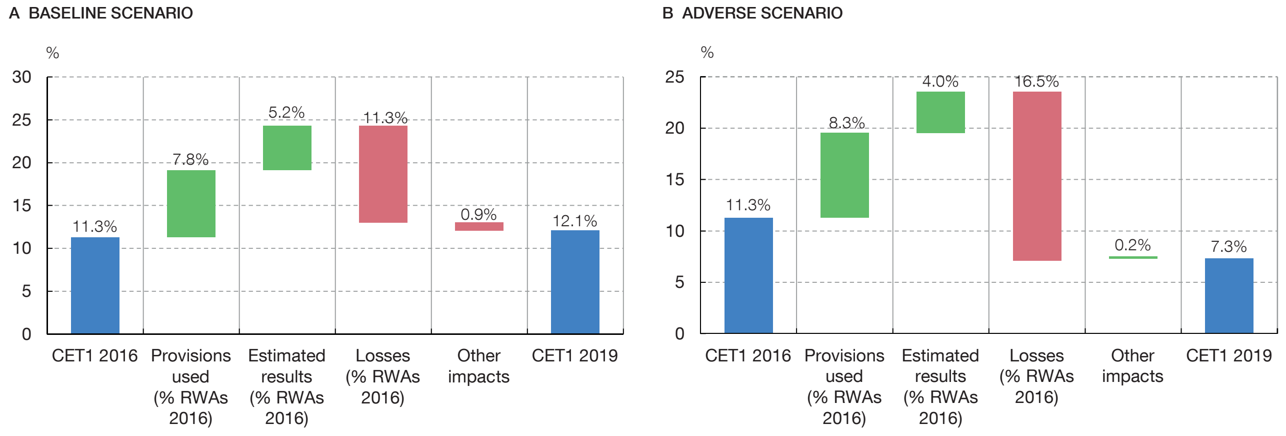
[9] The fully loaded CET1 is calculated as the sum of all eligible capital elements at a given date less the full deductions established by the regulation, without considering the reduction of deductions according to the adjustment schedule known as phase-in.

[10] Estimated results include both the net pre-provision profit of business in Spain and the contribution to the net income attributable to the controlling entity of the group subsidiaries.

IMPACT ON FULLY-LOADED CET1 RATIO.
OTHER SSM INSTITUTIONS

CHART 2.27


A BASELINE SCENARIO

B ADVERSE SCENARIO

SOURCE: Banco de España.

losses for this group of institutions (11.3% of RWAs). However, income generation (5.2% of RWAs) and the use of existing provisions (7.8% of RWAs) are sufficient to absorb the negative impacts.

… and falls by 4 pp under the adverse scenario, to stand at 7.3% in 2019

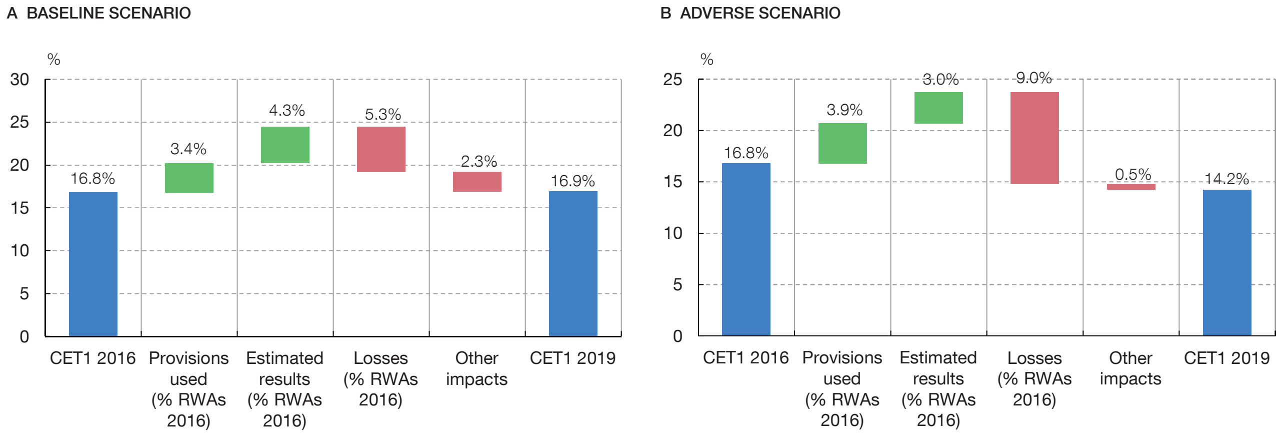
Under the adverse scenario, the CET1 ratio stands at 7.3% in 2019, implying a fall of 4 pp during the time horizon of the exercise. The impact of losses increases to 16.5% of RWAs, exceeding the positive contributions from the use of existing provisions (8.3% of RWAs) and income generation (4% of RWAs). The impact of the remaining factors is positive, but negligible. In any case, the CET1 ratio remains above the minimum regulatory threshold for this group of institutions as a whole, albeit with a high degree of dispersion across institutions.

The fully-loaded CET1 ratio of the group of less significant institutions remains broadly constant under the baseline scenario and declines by 2.6 pp under the adverse scenario

Lastly, Chart 2.28 shows the impact of the exercise on less significant institutions as a whole, under direct national supervision. Under the baseline scenario, the ratio remains broadly constant and increases by barely 0.1 pp to 16.9% in 2019. Losses (5.3% of RWAs) are amply offset by the use of provisions (3.4% of RWAs) and income generated (4.3% of RWAs). The remaining factors (growth of RWAs, tax burden, etc.) reduce the ratio by 2.3 pp, resulting in a negligible impact.

IMPACT ON FULLY-LOADED CET1 RATIO.
LESS SIGNIFICANT INSTITUTIONS

CHART 2.28

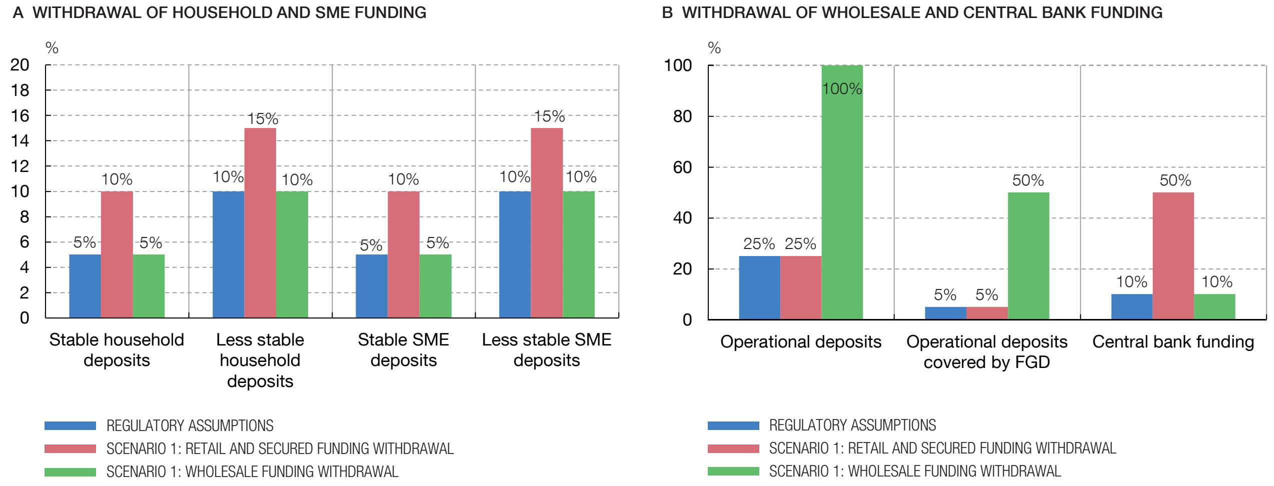

A BASELINE SCENARIO

B ADVERSE SCENARIO

SOURCE: Banco de España.

FUNDING WITHDRAWAL SCENARIOS

CHART 2.29



A WITHDRAWAL OF HOUSEHOLD AND SME FUNDING

B WITHDRAWAL OF WHOLESALE AND CENTRAL BANK FUNDING

SOURCE: Banco de España.

For this group of institutions, the adverse scenario does lead to a larger volume of losses (9% of RWAs), exceeding the volume of resources capable of absorbing them: provisions (3.9% of RWAs) and income generated (3% of RWAs). The fully-loaded CET1 ratio declines by 2.6 pp, to stand at 14.2% at December 2019. In any event, the ratio remains well above the regulatory minimum required at the end of the time horizon of the exercise, aided by the high level of these ratios at the start of the exercise in December 2016 (16.8%).

Results of the FLESB methodology: liquidity

The LCR is placed under additional stress by applying severe assumptions to short-term retail and wholesale funding withdrawals

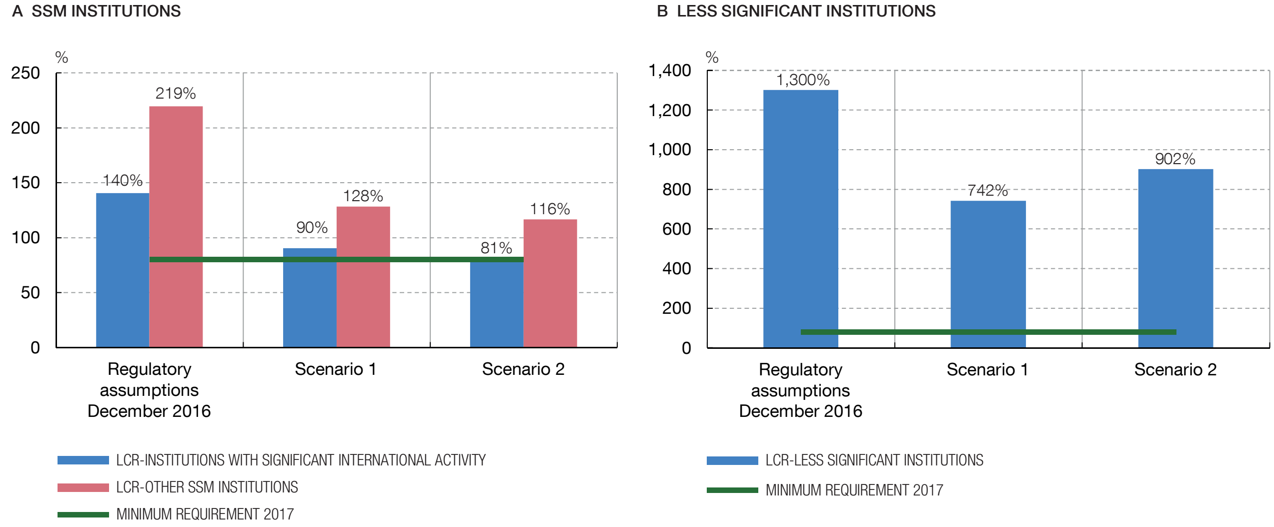
The LCR has been analysed under the applicable regulatory assumptions, and under two adverse scenarios with highly significant outflows of wholesale and retail funding. By definition, the LCR measures whether, in a scenario of liquidity stress lasting 30 calendar days, an institution maintains an adequate level of unencumbered, high-quality liquid assets (HQLA) to meet its net funding needs. The baseline assumptions used in this exercise are the parameters resulting from the European transposition of the Basel III LCR regulation. Moreover, the LCR is calculated under two much more severe scenarios: the first contemplates a substantially greater withdrawal of retail funding and secured funding (basically central bank funding), while the second scenario considers notably higher withdrawals of wholesale funding (withdrawal of 100% of operational deposits). As in the solvency exercise, these scenarios are the same as those used by the IMF in the liquidity stress test exercise conducted as part of the FSAP. Both scenarios are based on extreme assumptions, with extremely high funding withdrawals. The reference date is December 2016 and the analysis horizon covers the subsequent 30 days. Chart 2.29 shows the main differences in the assumptions regarding funding withdrawal ratios under the different scenarios (panel A refers to the assumptions relating to households and SME funding, and panel B includes the assumptions relating to wholesale and central bank funding).

These scenarios have a significant impact on the LCR of all groups of institutions which, nevertheless, manage to maintain a level of liquidity...

The results of the analysis presented in Chart 2.30 show that Spanish institutions have a robust liquidity situation, since all groups of institutions exceed the minimum LRC requirements set for 2017 (80%). Under the regulatory assumptions, all groups amply exceed the minimum LCR requirement of 80% in 2017, the larger institutions with significant international activity presenting a tighter ratio (140%). For institutions under SSM supervision, scenario 2 (falls to approximate LCR levels of 80% for institutions with

IMPACT ON LIQUIDITY COVERAGE RATIO

CHART 2.30



SOURCE: Banco de España.

...in excess of the regulatory requirement

significant international activity and of 116% for other SSM institutions) has a greater impact than scenario 1, indicating that these institutions are relatively more dependent on wholesale funding. In contrast, less significant institutions are more severely affected by scenario 1, showing higher vulnerability to retail funding withdrawals, while still maintaining ample liquidity reserves. The extreme severity of the scenarios, given its very low probability of occurrence, implies for all groups reductions of approximately 50% in the LCR with respect to the regulatory assumptions used for this ratio.

3.1 Analysis of systemic vulnerabilities

The latest update of the map of systemic vulnerabilities indicators[1] for Spain shows that such vulnerabilities have been holding stable since the publication of the last FSR (see Chart 3.1). This map of indicators is grouped into five categories. The credit category groups together indicators of the changes in and degree of imbalance in total and banking credit to households, non-financial corporations and the non-financial private sector as a whole; these sectors' level of debt and debt burden; the interest rates on new lending business and on outstanding balances; and changes and imbalances in house prices. The liquidity category includes indicators of banking and market liquidity. The concentration category includes indicators of total and banking credit concentration in different sectors and by type of borrower. The financial markets category groups together indicators of correlations and interconnectedness of banking institutions and of systemic stress in different markets. The macroeconomic imbalances category includes indicators of external debt, public-sector debt and the current account balance. The concentric line closest to the centre of the chart corresponds to the normal situation, while the degree of risk is on a growing course the greater the distance to the centre.

The systemic vulnerabilities indicators are holding stable

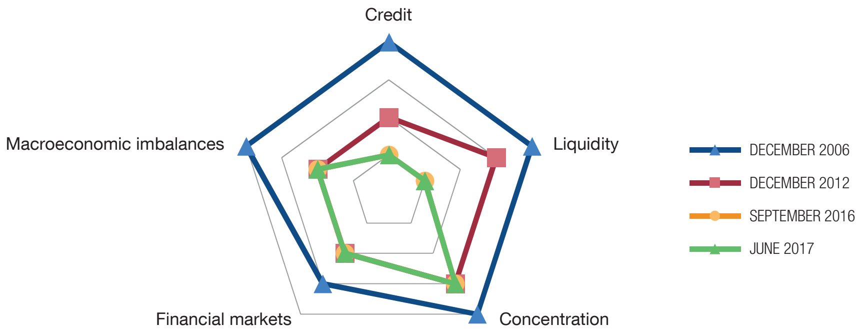
Chart 3.1 shows that the vulnerabilities relating to macroeconomic imbalances, liquidity, financial markets and credit are holding at low levels, which reflects the favourable course the Spanish economy is continuing to experience along with the gradual improvements in credit developments. The concentration in various credit portfolios is holding stable and at an average level. Within this category it is worth noting that the indicators relating to credit concentration in the sectors most affected by the latest crisis (construction and real estate development activities) have been declining continuously since the start of the crisis.

With its colour scheme, the map of these indicators is a tool that helps visualise the historical trend of each category

An in-depth analysis of Chart 3.1 provides for a time study of these vulnerabilities, and for decomposing certain categories in a more disaggregated fashion so as to be able to identify, more accurately, the source of the values observed. In this connection, it is advisable to represent the vulnerabilities in the form of a map of colours that enables

HEAT MAP LEVELS (a)

CHART 3.1



SOURCE: Banco de España.

a 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.

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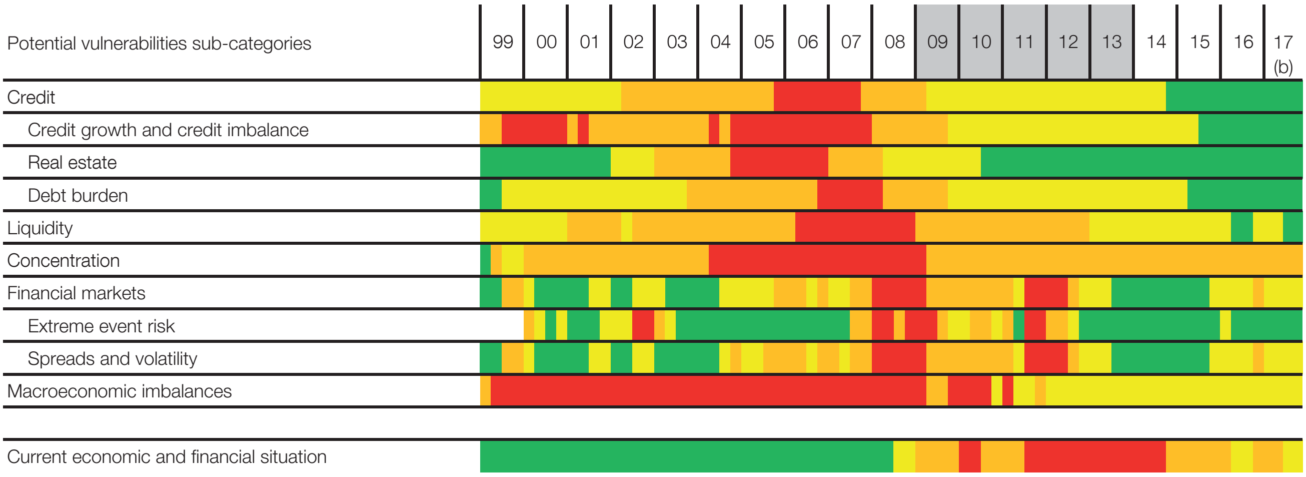
[1] This Banco de España tool draws together information from over 100 indicators of potential risk to the financial system and conditions in the real economy and the banking sector in Spain. The definitions of the main categories match those established by the European Systemic Risk Board in its Recommendation (ESRB/2013/1) on intermediate objectives and instruments of macro-prudential policy.

their course over time to be studied. In this map, the tone indicates the intensity of the warnings on the vulnerabilities studied. The intensity increases as the tone draws closer to red, while the colour green would indicate a normal situation. Hence, Chart 3.2 shows firstly potential vulnerabilities and their developments over time through this map of colours. The term “potential vulnerabilities” is used because these indicators are characterised by the fact they provide early warning signals about situations that may result in specific problems in the financial system and the real economy, or even in a systemic crisis in the most extreme cases. The main categories of these vulnerabilities correspond to those presented earlier in Chart 3.1. In addition, the developments in a second block, called “current economic and financial situation”, are presented. This block captures the materialisation of the potential vulnerabilities in problems for the financial system and the real economy. This is done through indicators relating to the real economy, such as economic growth and the unemployment level, and other financial indicators, including bank NPLs.

Within the first block, the breakdown into certain significant sub-categories is presented. It can be seen how, before the recent crisis (the period indicated in grey in Chart 3.2), most categories (credit, liquidity, macroeconomic imbalances and, to a lesser extent, concentration) showed signs of high vulnerability (in red). Once the crisis was under way, the risk diminished gradually to levels of low risk in most of the sub-categories. Accordingly, these categories show the possibility of identifying vulnerabilities ahead of the materialisation of such vulnerabilities in the form of actual problems. Moreover, it can be seen that the indicators related to financial markets are not characterised by such a clear crisis-anticipation capacity, but they do signal the high risk prevailing at the height of the euro area sovereign debt crisis. Lastly, the last row of Chart 3.2 shows the economic and financial situation over time. Green is the prevalent colour during the expansionary period as the economy is growing at high rates, and because the existing vulnerabilities have not yet transformed into losses either for the financial system or the real economy. However, after the crisis broke, it can be seen how the vulnerabilities discernible in the first block of Chart 3.2 rapidly fed through to the current economic and financial situation (in red).

HEAT MAP BY SUB-CATEGORY (a)

CHART 3.2



SOURCE: Banco de España.

a The colour scheme identifies four levels of risk: i) green denotes a normal, riskl-free situation, ii) yellow indicates low risk, iii) orange is medium risk and, iv) red is high risk. The grey shaded band denotes the last crisis. Some indicators as at June 2017 are based on provisional information.

b It includes Q1 and Q2 of 2017.

The analysis of cyclical vulnerabilities does not advise a tightening of macroprudential stance

The latest update of the map of indicators, with data as at June 2017, shows a stable situation with respect to recent quarters in most sub-categories. The vulnerabilities remain at a normal level in the sub-categories relating to developments in and imbalance of credit, real estate sector prices, the debt burden of the non-financial private sector and the category of extreme events in the financial markets, to which an improvement in some indicators of the real economy should be added. Also, current economic and financial situation has improved slightly in Q2, standing at a low level. The changes in this category, which reflect the consequences of the recent crisis on the real economy and the financial system, show the progress of normalisation, which is, however, not yet complete.

The map of indicators shows a downturn in the financial cycle, pointing to a gradual recovery

The map of indicators suggests we are at a conjunctural position that is part of the downturn in the financial cycle, albeit ahead of a stage of gradual recovery. Against this background, the indicators will foreseeably continue to reflect an improving trend in the coming quarters marked by the absence of warning signals stemming from cyclical vulnerabilities. The assessment inferred from the analysis of the map of indicators would not, for the moment, advise resorting to the activation of cyclical macroprudential instruments (such as the countercyclical capital buffer (CCyB)). In addition to the absence of significant warnings, a premature activation of cyclical macroprudential instruments might endanger this recovery.

The setting of the countercyclical capital buffer is governed by a "guided discretion" approach based on indicators

This analysis of cyclical vulnerabilities coincides with the quarterly assessment published by the Banco de España on the indicators that offer guidance as to decisions on the CCyB and which has led to the decision to maintain the rate applicable to domestic credit exposures at 0% since its entry into force on 1 January 2016.[2] Specifically, the setting of the CCyB is governed by a "guided discretion" approach, in which the percentage of this instrument is determined by analysis of various quantitative indicators, combined with the analysis of qualitative information and the institution's expert judgement.

The level of the credit-to-GDP gap and other complementary indicators advise keeping the CCyB rate at 0% in Spain

Among the quantitative indicators used, the main reference is the credit-to-GDP gap, defined as the difference between the credit-to-gross domestic product ratio in relation to its long-term trend, determined by statistical procedures.[3] This indicator is that proposed by the Basel Committee on Banking Supervision (BCBS) and is incorporated into current European and Spanish legislation for guidance on the setting of the CCyB by means of a European Systemic Risk Board Recommendation.[4] Although the calculation of this indicator is made using common criteria, certain divergences between the results published by different institutions can be observed. These differences, which are not ultimately significant, are due to the different numerical approaches that arise in the application of the definition to specific data (see Box 3.1). On March 2017 data, the gap stands at –59.6pp, far below the levels that would advise activation of the CCyB.[5] Chart 3.3.A shows the changes in the level of the gap, along with the credit-to-GDP ratio and its long-term trend.

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[2] "The Banco de España maintains the countercyclical capital buffer at 0%", Banco de España press release dated 25 September 2017.

[3] The set of quantitative indicators which the Banco de España monitors for guidance as to the setting of the CCyB also comprises indicators related to credit growth, house prices, debt service and the current account balance. All these indicators vindicate the decision to maintain the CCyB at 0%.

[4] Directive 2013/36/EU (CRD IV), Law 10/2014, Royal Decree 84/2015, Banco de España Circular 2/2016 and ESRB Recommendation 2014/1.

[5] The Banco de España, in accordance with BCBS guidance, considers the level of 2 pp as the reference level for a possible activation of the CCyB.

COMPARISON OF METHODOLOGIES USED TO CALCULATE THE CREDIT-TO-GDP GAP

BOX 3.1

The credit-to-GDP gap is the quantitative indicator proposed by the Basel Committee on Banking Supervision (BCBS)[1] as a reference to guide the setting of the countercyclical capital buffer (CCyB). This indicator is recognised both in European law,[2] and in Spanish law,[3] and also by the European Systemic Risk Board (ESRB).[4] The credit-to-GDP gap seeks to measure excess credit (in terms of GDP) with respect to its long-term (or equilibrium) level. The gap is calculated as the difference (in percentage points) between the ratio of total credit to the private non-financial sector to GDP and the long-term trend in this ratio, estimated using a statistical filter.[5]

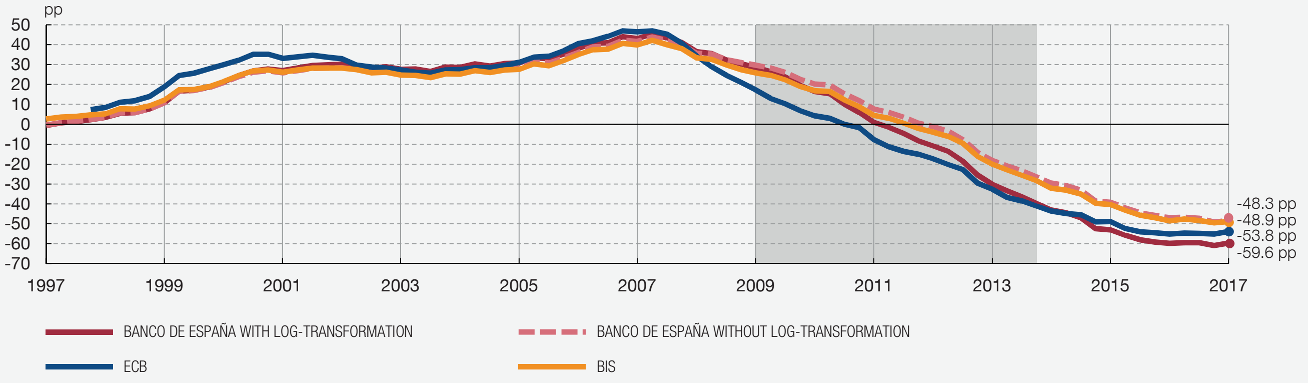
Spain's credit-to-GDP gap is calculated and published regularly by the Banco de España, and also by the European Central Bank (ECB) and by the Bank for International Settlements (BIS). In each case quarterly data are used. Chart A shows the credit-to-GDP gap published by each authority. It can be seen that, although the general trends in this indicator are very similar, there are certain differences in levels, which in some periods are large. There are two main reasons that explain these differences, one of which is methodological and the other of which relates to the time horizon used.

With regard to the methodological differences, the gap that the Banco de España has been publishing is obtained by calculating the long-term trend based on the credit-to-GDP ratio series in logarithms. In contrast, the ECB and the BIS use the absolute-value series. The reason for using the log series is to reduce variability and therefore to have a smoother series, this being a normal practice in the treatment of macroeconomic series with significant changes in level, like the credit-to-GDP ratio in Spain.

The differences between the gaps calculated with and without logarithmic transformation of the credit-to-GDP ratio are observed in Chart A, using Banco de España data in both cases. It can be seen that the series calculated by the Banco de España with and without logarithms coincide almost exactly over most of the sample period, until the crisis had begun (around the year 2010) when the two series begin to diverge. The rapid reduction in the credit-to-GDP ratio from the start of the crisis means that using logarithms to calculate the trend produces a more negative gap. This is because the use of logarithms smooths the trend, which remains high in relation to the rapid reduction in the observed value of the credit-to-GDP ratio. As at March 2017 (latest available data) the difference between the two methods of calculating the gap was 11.3 percentage points.

Differences are also seen between the series published by the ECB and the BIS and the one published by the Banco de España that does not use logarithms. The reason for the differences in these cases is the length of the time series for the credit-to-GDP ratio used to calculate the long-term trend. While the Banco de España calculates the gap from 1970 Q1,[6] the ECB does so from 1997 Q4 and the BIS from 1980 Q1. In principle, the statistical filter

Chart A
SPAIN'S CREDIT-TO-GDP GAP ACCORDING TO DIFFERENT SOURCES



SOURCES: Banco de España, European Central Bank and Bank for International Settlements.

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[1] BCBS (2010). *Guidance for national authorities operating the countercyclical capital buffer*. December. See Annex 1.

[2] Directive 2013/36/EU (CRD IV) of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms. See Articles 135 and 136.

[3] *Law 10/2014, Royal Decree 84/2015* and, in particular, *Banco de España Circular 2/2016* to credit institutions on supervision and solvency, which completes the adaptation of Spanish law to Directive 2013/36/EU and to Regulation (EU) No 575/2013. See Rule 9 of the Circular.

[4] Recommendation of the ESRB of 18 June 2014 on guidance for setting countercyclical buffer rates (ESRB/2014/1). See Recommendation B.

[5] A one-tailed Hodrick-Prescott filter with a smoothing parameter of 400,000.

[6] Another difference between the series is the window or initial period of time for which the observed values are taken into account but for which the gap is not calculated. The purpose of this window is to ensure that there are sufficient observations to obtain a trend with which to compare the observed values. The Banco de España uses a 20-quarter window, while the BIS uses a 40-quarter one.

COMPARISON OF METHODOLOGIES USED TO CALCULATE THE CREDIT-TO-GDP GAP (cont'd) BOX 3.1

that determines the long-term trend is considered to behave more robustly with long series, to avoid the results being excessively dependent on the conjunctural situations existing in a specific period. Comparing the latest values of the credit-to-GDP gap supplied by the three institutions mentioned above, it can be seen that the differences between the series calculated without logarithms are very small in the case of the series of the Banco de España and of the BIS. This is because of the similarity of the samples used to calculate the trend. Meanwhile, the series of the ECB, which uses a significantly shorter sample, gives values for the gap that are 4.9 pp and 5.5 pp smaller than those given by the BIS and the Banco de España series, respectively.

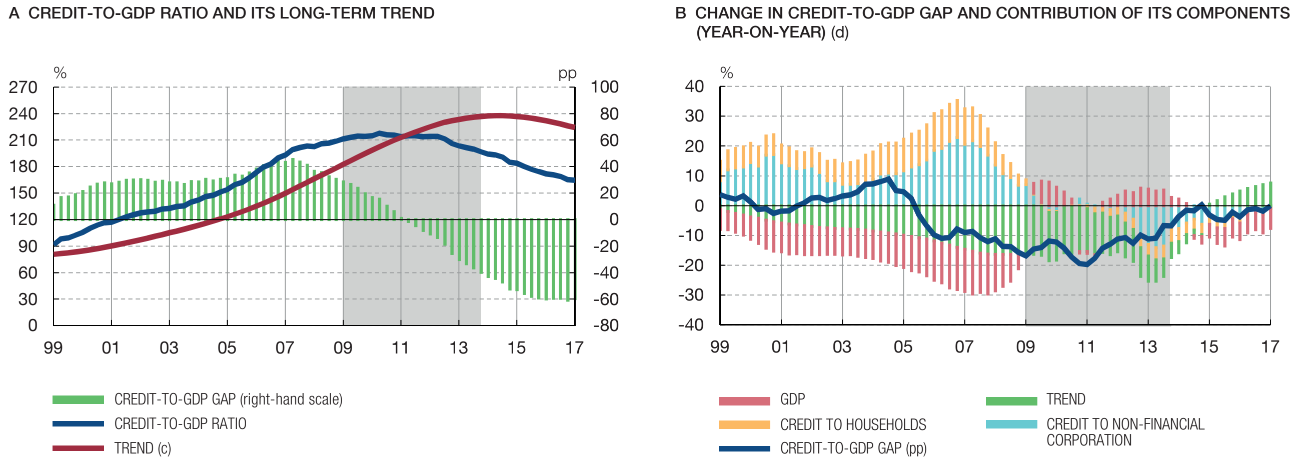
The conclusions regarding developments in credit and cyclical risk do not vary from one series to another. However, it is important to be aware of the existence of these differences in the values published by different sources and the reasons for them.

The first steps in correcting the credit-to-GDP gap could be taken by adjusting its trend component and by easing the contraction in lending activity

In addition to the level of the gap, it is worth monitoring its changes and the determinants thereof. This exercise is presented in Chart 3.3.B, which shows the year-on-year change in the gap and in the main components that determine its trend (GDP, credit to households, credit to non-financial corporations and long-term trend). The values of the gap can be seen to continue to be very low, chiefly owing to the fact that credit continues to post negative growth rates, to the positive growth of GDP (the denominator of the ratio) and to the high inertia of the long-term trend, which continues to have very high values. Nonetheless, in recent quarters the trend has been the only component that affects the gap positively insofar as it begins to incorporate the prolonged decline in credit during the crisis years through a gradual decline in its level. This behaviour is expected to continue and, to the extent that the contraction in lending activity continues to ease, or begins to show positive growth rates, it will give rise to a correction in the values of the credit-to-GDP gap.

Finally, as regards other developments of macroprudential interest relating to initiatives promoted by the European Systemic Risk Board, it is worth noting that the Banco de España has updated the list of material third countries for Spain for the purposes

CREDIT-TO-GDP GAP (a) (b) **CHART 3.3**



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

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

SOURCE: Banco de España.

a The shaded area shows the last period of systemic banking crisis (2009 Q1-2013 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.

of the CCyB (see Box 3.2), adhering to the best methodological practices followed in the EU. Moreover, the Banco de España has continued to make progress in its work to develop an analytical framework for the assessment of the potential cross-border effects of macroprudential measures. This framework would be applicable for analysing the effects of the measures that the Banco de España envisages adopting in the future, and the impact on the Spanish financial system of the measures introduced by other countries' authorities.

MATERIAL THIRD COUNTRIES FOR THE PURPOSES OF THE COUNTERCYCLICAL CAPITAL BUFFER

BOX 3.2

The operationalisation of the Countercyclical Capital Buffer (CCyB) developed by the European Systemic Risk Board (ESRB) on the basis of European law entails identifying third countries (from outside the EU) vis-à-vis which domestic credit institutions have significant exposures. The aim of this identification is to smooth the prevention and mitigation of the transmission of cyclical systemic risks, derived from excessive credit growth in these countries, towards EU countries via European banks' exposures. The identification of a "material third country" empowers an EU Member State's designated national authority to set, where appropriate, a CCyB rate for domestic institutions' credit exposures to that third country when it is considered that the rate set by the local authorities is insufficient.

With a view to contributing to the uniform setting of the CCyB by the EU Member States in their exposures to a same non-EU country, the ESRB issued a recommendation[1] on the recognition and setting of CCyB rates for exposures to third countries. The Banco de España has adopted this recommendation along with the methodology for identification proposed by the ESRB.[2] This methodology stipulates that for a country to be identified as material, the exposures to that country must be greater than 1% of total exposures in at least one of three categories: i) original exposures, ii) risk-weighted exposures, and iii) defaulted exposures. This threshold must be simultaneously exceeded in the last quarter, the penultimate quarter and by the average of the eight quarters prior to the reference date (31 December of the year prior to the exercise).

Against this background, the Banco de España has conducted in 2017 its second exercise for the identification of material third countries.[3] As a result, six countries have been identified: *United States, Brazil, Mexico, Chile, Turkey and Peru*. This list differs from that published the previous year (for the first time) for 2016 owing to the inclusion of Peru, a country that slightly exceeds the materiality threshold in the risk-weighted exposures category. Although Spanish banks' exposures to Peru have not changed significantly since the previous year, its inclusion is due to the reduction in the materiality threshold (from 2% to 1%) used.

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[1] ESRB Recommendation 2015/1 on recognising and setting of countercyclical buffer rates for exposures to third countries.

[2] ESRB Decision 2015/3 on the assessment of materiality of third countries for the Union's banking system in relation to the recognition and setting of countercyclical buffer rates.

[3] For details of the 2016 identification exercise, see FSR, November 2016, Chapter 3.

Chart A
LARGEST EXPOSURES TO THIRD COUNTRIES BY EXPOSURE CATEGORY ACCORDING TO THE MATERIALITY CRITERION (a)

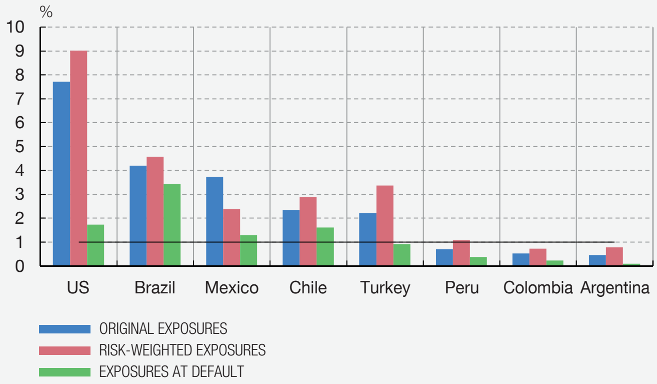
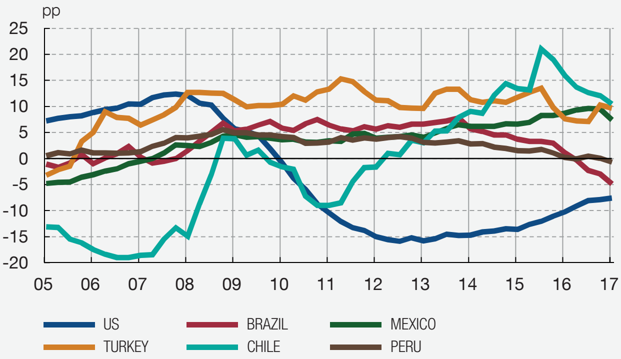


Chart B
CREDIT-GDP GAP IN THIRD COUNTRIES THAT MEET THE MATERIALITY THRESHOLD IN SPAIN



SOURCES: Banco de España, BIS and Banco Central de Reserva del Perú.

a The materiality criterion is defined as the minimum between the average exposures in the last eight quarters (Q1-2015 to Q4-2016) and the minimum, in turn, of the last two quarters (Q3-2016 and Q4-2016). If this value is above 1% in at least one of the three categories (OE, RWE, DE), the country is identified as material. The horizontal line shows the 1% threshold for a country to be identified as material.

This change seeks to align with the threshold used by the ESRB itself in the identification of material countries for the EU as a whole.[4] The results by exposure category are shown in Chart A, where in addition to material countries the two following countries in terms of significance of exposures (Colombia and Argentina) are included, in order to illustrate their current distance from the materiality threshold. The chart draws together the above-mentioned minimum criteria into a single value by exposure category. This material-country-identification exercise is also conducted by each EU Member State, through their designated authorities, and by the ESRB for the EU as a whole.[5]

For those countries identified as material, the ESRB recommendation stipulates that ongoing monitoring of the risk of excessive credit growth in these countries should be carried out, given the prospect that this could generate a risk to financial stability in Spain. To this end, the Banco de España has developed an early warning system based on the monitoring of four indicators capable of emitting signs of a build-up of cyclical systemic risk due to excessive credit growth.[6] These indicators are part of the set used by the Banco de España for the setting of the CCyB in Spain: (i) credit-to-GDP gap (see Chart B), (ii) growth of house prices, (iii) credit intensity, and (iv) current account balance.

For those countries in which some type of warning is identified, the Banco de España performs a more detailed qualitative analysis. Although in some countries the values of certain indicators have slightly exceeded these thresholds, the result of the qualitative analysis does not identify clear warning signals about excessive credit growth in any of them. Accordingly, it is not considered necessary for the moment to set a CCyB rate for credit exposures to any of the material third countries.

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[4] ESRB Decision 2015/3.

[5] The list of countries identified in the EU in 2016 can be seen in *"A Review of Macroprudential Policy in the EU in 2016"* – Section 4.2, April. ESRB (2017).

[6] The warnings have been defined in the event of the value of these indicators exceeding certain thresholds based on the historical distributions of these countries in each indicator. The setting of the thresholds is based on those used by the ESRB for the monitoring of the countries identified as material for the EU as a whole in ESRB (2017): *"ESRB Risk Monitoring Framework for Third Countries"* (internal document).

CONSOLIDATED BALANCE SHEET DEPOSIT INSTITUTIONS

ANNEX 1

ASSETS	Jun-17	Change Jun-17/Jun-16	Relative weight Jun-16	Relative weight Jun-17
	€m	%	%	%
Cash and balances with central banks	188,620	35.0	3.8	5.3
Loans and advances to credit institutions	186,546	-11.9	5.8	5.2
General government	119,418	-9.7	3.6	3.3
Other private sectors	2,053,252	-0.1	56.0	57.5
Debt securities	529,354	-8.3	15.7	14.8
Other equity instruments	46,426	11.8	1.1	1.3
Investments	36,382	-8.3	1.1	1.0
Derivatives	145,862	-27.2	5.5	4.1
Tangible assets	49,819	-5.1	1.4	1.4
Other	213,643	-3.5	6.0	6.0
TOTAL ASSETS	**3,569,322**	**-2.8**	**100.0**	**100.0**
Memorandum items				
Financing to private sector	2,147,566	-0.7	58.9	60.2
Financing to general government	517,184	-7.0	15.1	14.5
Total NPLs	138,001	-10.0	4.2	3.9
Total NPL ratio	4.52	-49.3 (b)		

LIABILITIES AND EQUITY	Jun-17	Change Jun-17/Jun-16	Relative weight Jun-16	Relative weight Jun-17
	m€	%	%	%
Balances from central banks	232,403	30.6	4.8	6.5
Deposits from credit institutions	308,333	-13.5	9.7	8.6
General government	89,807	-15.1	2.9	2.5
Other private sectors	1,960,985	0.7	53.0	54.9
Marketable debt securities	395,762	-10.2	12.0	11.1
Derivatives	140,869	-28.2	5.3	3.9
Provisions for pensions, tax and other	35,883	-0.1	1.0	1.0
Other	141,569	0.8	3.8	4.0
TOTAL LIABILITIES	**3,305,610**	**-2.8**	**92.6**	**92.6**
Memorandum items				
Eurosystem net lending (a)	172,903	36.3	3.5	4.8
Own funds	248,701	-2.0	6.9	7.0
Minority interests	38,487	9.7	1.0	1.1
Valuation adjustments relating to total equity	-23,475	39.9	-0.5	-0.7
TOTAL EQUITY	**263,712**	**-3.1**	**7.4**	**7.4**
TOTAL LIABILITIES AND EQUITY	**3,569,322**	**-2.8**	**100.0**	**100.0**

SOURCE: Banco de España.

a Difference between funds received in liquidity-providing operations and funds delivered in absorbing operations. June 2017 data.
b Difference calculated in basis points.

CONSOLIDATED INCOME STATEMENT DEPOSIT INSTITUTIONS (a)

	Jun-17		Jun-16	Jun-17
	€m	% Change Jun-17/Jun-16	% ATA	% ATA
Financial revenue	55,528	1.9	3.12	3.08
Financial costs	20,284	-7.2	1.25	1.13
Net interest income	35,244	8.0	1.87	1.96
Return from capital instruments	914	-15.6	0.06	0.05
Net financial income	36,158	7.2	1.93	2.01
Share of profit or loss of entities accounted for using the equity method	2,056	-1.0	0.12	0.11
Net commissions	12,988	11.0	0.67	0.72
Gains and losses on financial assets and liabilities	3,629	-16.1	0.25	0.20
Other operating income (net)	-924	30.4	-0.04	-0.05
Gross income	53,907	5.4	2.93	2.99
Operating expenses	26,627	5.0	1.45	1.48
Net operating income	27,280	5.8	1.48	1.51
Asset impairment losses (specific and general provisions)	8,889	-3.7	0.53	0.49
Provisioning expense (net)	2,737	-8.1	0.17	0.15
Income from disposals (net)	-460	-46.1	-0.05	-0.03
Profit before tax (including discontinued operations)	15,195	19.5	0.73	0.84
Net income	10,991	18.2	0.53	0.61
Memorandum item				
Income attributable to the controlling entity	8,972	18.9	0.43	0.50

SOURCE: Banco de España.

a It does not include the bank resolved in June 2017 in order to avoid distortions in the analysis of the results for the Spanish banking system and the comparison between periods.

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