1 Introduction

The Spanish economy continued to grow at a high rate in 2016. GDP grew by 3.2%, the same rate as in 2015, and the pre-crisis level of activity is expected to be regained in 2017 Q2. Other highlights in 2016 were the growth in employment, which brought the unemployment rate down to 18.6%, from 20.9% at the end of 2015, and the continuing high level of net lending to the rest of the world, which amounted to 2% of GDP.

The current recovery phase has been based on the correction of some of the macro-financial imbalances and also on other more temporary developments. The recovery in external competitiveness and the improvement in the financial situation of households, businesses and financial institutions, partly as a result of the various reforms undertaken in different areas in recent years, are significant drivers of the recovery in the Spanish economy. In addition, growth in recent years has been boosted by more temporary factors, such as the fall in oil prices, the fiscal stimulus and the expansionary monetary policy. These factors appear to have had a stronger impact in Spain than in the euro area as a whole, partly explaining the growth differential in Spain's favour.

Domestic demand remained highly buoyant and the developments in the net external balance were very favourable. In 2016 private consumption was highly robust and accelerated slightly, while the growth rate of investment moderated, largely due to the slackness of public investment, although in the second half of the year business investment was also less buoyant. Net external demand made a positive contribution to GDP growth for the first time since 2013; goods exports grew at a higher rate than the markets in which they are sold, exports of tourist services grew at a very high rate, partly linked to the instability in certain competitor countries, and, above all, imports moderated somewhat.

The recovery is expected to continue in 2017, although there are significant risks. These risks arise from the external environment and the rise in interest rates in certain markets. The prospects for continuation of the current growth phase in 2017 are favourable. However, as the temporary factors that have been driving recent GDP growth lose momentum, the Spanish economy is expected to grow at more moderate rates.[1] The acceleration in world economic activity is expected to partially make up for this loss of momentum, in line with the developments observed in the final months of 2016 and in the first few months of this year, in the advanced economies in particular, including in the euro area. However, this outlook is not free of risks that could have implications for the Spanish economy. First, the improvement in the outlook for world activity has been accompanied by an increase in global uncertainty relating to the resurgence of protectionist positions in relation to trade and migratory flows. Second, in autumn 2016 there was a sharp increase in interest rates at the longest terms in the United States, which was eventually passed through to European markets. This development seems to reflect revised expectations regarding the rate of normalisation of the Federal Reserve's monetary policy and a rise in term and inflation risk premiums, which were at very low levels. Third, world inflation rates are currently accelerating, largely due to the increase in the prices of oil and other commodities. If the prices of these products stabilise at their current levels, then the rise in inflation since late 2016 will not be lasting and the maintenance of an accommodative monetary policy stance will be warranted.

1 See the March 2017 macroeconomic projections of the Banco de España.

The new global environment may have a negative impact on the path of recovery projected for the Spanish economy, given the persistence of certain vulnerabilities. The recovery in the Spanish economy may be prejudiced by this new global environment. First, reducing the high level of external indebtedness requires a sustained external surplus, which would be difficult to achieve in a context of contracting international trade flows, increasing oil prices and further rises in interest rates. Moreover, the high level of public debt and the over-indebtedness that still persists in certain parts of the private sector constitute an element of vulnerability in the event of a tightening of financing conditions. Finally, in the central scenario, in which the inflationary pressures of recent months begin to ease as the past movements in the oil price tail off, it is crucial for the Spanish economy that domestic prices and wages should not accommodate the temporary rise in the cost of energy and raw materials. In this respect, it is necessary to ensure that the competitive advantages built up in recent years, which are proving to be a vital support for the recovery in activity and employment creation, should not be dissipated.

In the context described, certain significant structural problems still need to be addressed. Maintaining a path of solid recovery for the Spanish economy in the longer term requires that a number of significant challenges be addressed, including long-term unemployment, population ageing, the high volume of public debt and the low rate of growth of total factor productivity.

2 Economic developments in 2016

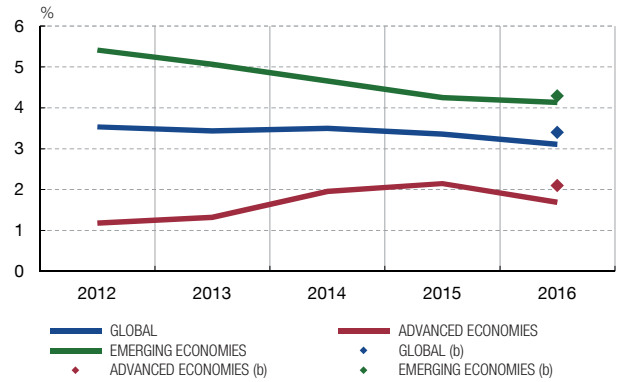
2.1 A NEW GLOBAL ENVIRONMENT

World economic growth in 2016 was again lower than expected, while inflation followed a rising path. The world economy grew by 3.1% last year. This was 0.1 percentage points (pp) less than in 2015 and also below the rate anticipated at the beginning of the year. The mild slowdown in activity was a consequence of the diminished dynamism of the advanced economies, whose growth fell by almost 0.5 pp, to 1.7%, mainly as a result of the lower growth in the United States. At the same time, the GDP growth rate in the emerging economies increased by 0.1 pp, to 4.2%, after falling for five years running. Inflation rose during the year in the advanced economies, reflecting the increase in oil prices (of 55% in 2016 as a whole). On average, the inflation rate in 2016 was 0.7%, up from 0.3% in 2015. By contrast, inflation in the emerging economies fell by 0.5 pp to 4.2%, as a result of developments in the commodity-exporting countries, whose currencies stopped depreciating and, therefore, generating inflationary pressures (see Chart 1.1).

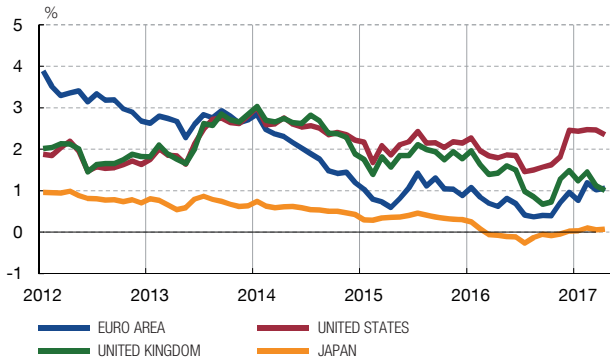
The global outlook has become more complex, both in the advanced and in the emerging economies. The outcome of the June referendum on the United Kingdom's continued membership of the EU and the result of the elections in the United States in November have had an impact on a complex global economic and financial outlook. Indeed, the fragility of the recovery in the advanced economies, despite the recent improvement, is compounded by the difficulties certain emerging economies are having exiting their recessions, the signs of weakness in international trade (more marked in the first half of 2016) and, especially, the tensions in the process of rebalancing the Chinese economy.

In the United States, changes are expected in the economic policy stance, which has contributed to a rise in long-term interest rates. In the United States, following the arrival of the new administration, there may be some potentially very significant changes in various areas of economic policy, including fiscal policy. Possible measures include, inter alia, a major reform of corporate income tax (with a significant reduction in the rate charged), a reduction in personal income tax (especially at higher income levels), an

1 GROSS DOMESTIC PRODUCT (a)

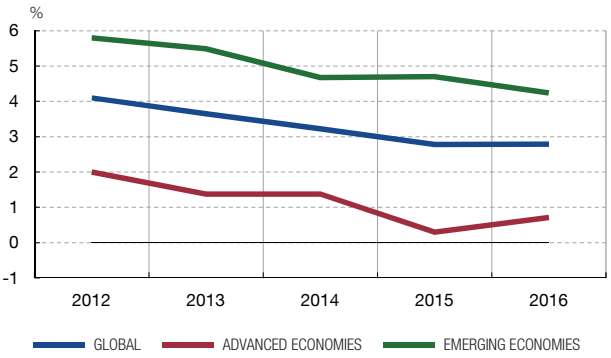


2 LONG-TERM INTEREST RATES IN ADVANCED ECONOMIES (c)



3 COMMODITY PRICES

4 CONSUMER PRICES (d)



SOURCES: IMF (World Economic Outlook April 2017) and Datastream.

a Annual rates of change.
b Forecasts from WEO, January 2016.
c 10-year sovereign bonds.
d Year-on-year rates of change.

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infrastructure plan, an increase in defence spending and the possibility of offsetting cuts in other items of expenditure. Against this background, markets have in recent months begun to anticipate that the Federal Reserve will raise official interest rates more rapidly. The expected change in the macroeconomic policy stance in the United States has contributed, following the elections of last November, to a rise in long-term interest rates, which has been passed through to other economies, including in Europe (see Chart 1.1).

Trade exchanges and movements of people may be hampered by possible policy changes in the United States and by the consequences of Brexit. In 2016, growing support was seen in certain advanced countries for protectionist policies (see Box 1.1). In this respect, the new US administration advocates the introduction of certain restrictions on trade exchanges and migratory movements and less international coordination of financial regulation. Also, although the arrangements for the United Kingdom's exit from the EU are subject to a high degree of uncertainty, lower flows of trade and workers between these two areas will very possibly be one of the consequences.

The difficulties involved in correcting the imbalances in the Chinese economy, where the growth of indebtedness has not been curbed, continue to exist. In China, the

financial system experienced significant turbulence at the beginning of 2016, which spread to world markets as a whole, against a background of expectations of renminbi depreciation and uncertainty over the objectives and room for manoeuvre of the Chinese authorities in the monetary and exchange rate spheres. Ultimately, these tensions reflected the complexity of the transition from a growth model based on public investment and exports to a new one based on household consumption and production of services. During the most recent phase, the prevailing model was maintained through fiscal stimulus and extraordinarily loose financial conditions, the result of which has been growth in domestic imbalances, especially in the form of high corporate debt. Since 2013, the Chinese authorities have promoted a number of reforms, including notably liberalising the financial system and cross-border capital movements. During this period, macroeconomic policies have faced the difficult task of balancing two objectives: support for growth and correction of macro-financial imbalances. The fiscal stimulus implemented in 2016 reduced the strength of the slowdown (GDP grew by 6.7%, as against 6.9% in 2015), but brought some of the adjustments under way to a standstill, with a further notable increase in credit and corporate debt.

2.2 THE EURO AREA ECONOMY AND THE MONETARY POLICY OF THE ECB

In 2016 the growth path of euro area GDP was extended, despite the weakness of foreign trade and growing geopolitical risks. Economic activity in the euro area remained on a path of recovery, despite an adverse external environment characterised by the weakness of global growth, especially in the first half of the year, and by growing geopolitical risks. The latter arose as a result of the persistence of wars in certain nearby countries, the threat of jihadist terrorism and, in the latter part of the year (as mentioned in the previous section), doubts over the direction of US economic policy.

GDP growth in the euro area was moderate, although relatively job intensive. GDP growth continued to be highly dependent on the boost to household and business spending provided by the expansionary monetary policy and low oil prices, although the increases recorded in the latter meant that this factor lost momentum as the year elapsed. Job creation improved somewhat, accelerating by 0.3 pp to 1.3%, against a background of sluggish wage growth, while, conversely, investment growth – taking into account the favourable financial conditions – was relatively modest. GDP grew by 1.7% in the year as a whole, slightly less than in 2015 (1.9%).

Structural unemployment, indebtedness and the situation of the financial system are constraints on growth. A number of factors are responsible for the fragility of the current recovery in the euro area. The more structural ones, which are broadly common to the advanced economies, include, notably, adverse demographic developments (which are giving rise to a significant slowdown in the growth of the working age population and tending to widen the gap between saving and investment) and the slowdown in technological progress, as reflected in moderate total factor productivity growth. In addition, in the euro area itself, the economic recovery is being hindered by high levels of structural unemployment (apparent in the high rates of long-term unemployment in certain economies), high levels of public and private-sector indebtedness built up during the crisis in a significant number of member countries and the weaknesses that continue to persist in the banking sector, with low levels of profitability, the build-up of non-performing assets on bank balance sheets and the recurrence of certain bouts of instability at the most vulnerable institutions. All this is compounded by the increase in political uncertainty, linked, in 2016, to the decision of the United Kingdom to leave the European Union and to the Italian referendum on constitutional reform and, in 2017, to the elections taking place in some of the largest euro area countries.

In the first half of 2016, the weakness of the recovery was accompanied by very moderate actual and expected inflation rates. The weakness of demand led to very low inflation rates for most of the year, while inflation expectations, according to the available indicators, continued to decline in the first half, to reach historical lows in the summer.

At the beginning of 2016, the Governing Council of the ECB reinforced the accommodative stance of its monetary policy by implementing a package of standard and non-standard measures. In March, the Governing Council approved a package of measures to further loosen financial conditions, to stimulate new lending and, in short, to speed up the return to inflation rates more in line with its medium-term target. The Governing Council thus first reduced the interest rate on its main refinancing operations (MROs) to 0%, and its deposit and marginal lending facility rates to -0.4% and 0.25%, respectively (where they have remained unchanged up to the date of publication of this Report). Second, in the context of the asset purchase programme (APP), the monthly volume of purchases was increased from €60 billion to €80 billion, the duration of the programme, until at least March 2017, was kept unchanged and the issue and issuer share limits were increased from 33% to 50% for those securities issued by international organisations and multilateral development banks. Third, in order to strengthen the transmission of the effects of asset purchases to financial conditions in the real economy, the launch in June of a new purchase programme for securities issued by non-bank corporations (CSPP) was announced, which has had a very favourable impact on the financing costs of this sector and has contributed to the recovery in the primary corporate debt market and to re-directing bank lending towards firms whose securities are not eligible for this programme.[2] Fourth, a new series of four targeted longer-term refinancing operations conditional upon expanding lending (TLTRO II), each with a fixed four-year maturity and interest payable at the MRO rate (i.e. currently 0%), with the possibility of a lower rate, between the MRO rate and the deposit facility rate (and thus a negative interest rate), for those institutions exceeding the lending benchmark.[3]

At the end of 2016 the asset purchase programme was recalibrated and extended to December 2017. The Governing Council of the ECB at its December meeting confirmed its previous decision to continue purchasing securities within the framework of the APP at a rate of €80 billion per month, in net terms, until March 2017, at the same time as announcing a new set of measures, including notably an extension of the programme for at least another nine months, to December 2017, with monthly purchases of €60 billion (see Chart 1.2).

The absence of signs of sustained convergence of inflation towards the medium-term reference of 2% and the prevalence of downside risks to growth justified the extension of the asset purchase programme. The increase in commodity prices has caused the general price index to rise from the summer, to 1.9% in April 2017, but core inflation has so far remained unaffected by this change in trend, the rise in the oil price having had no perceptible indirect effects on other prices. As regards costs, the degree of slack prevailing in the labour market (where unemployment is still around 10%, some 2.5 pp below its peak level during the crisis) suggests that wage moderation may persist, even

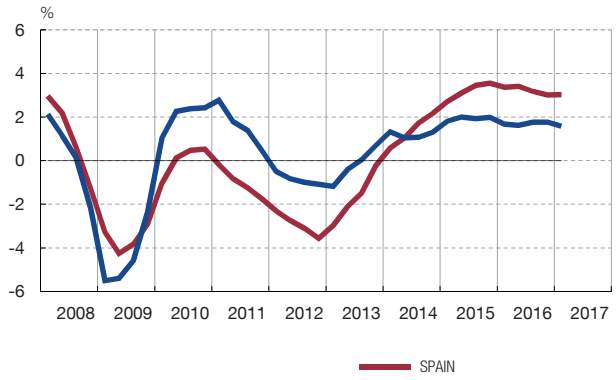
2 *Making room for the needy: The effects of the Eurosystem's Corporate Sector Purchase Programme*, by O. Arce, R. Gimeno and S. Mayordomo, Working Paper, Banco de España, forthcoming, analyses the effects of this Eurosystem programme on the financing conditions of Spanish firms.

3 Specifically, to obtain the benefit of the lowest rates, institutions must increase their eligible net lending (i.e. that to the non-financial private sector, excluding loans to households for house purchase) between 31 January 2016 and 31 January 2018 (or, if they reduced their eligible lending in the year to 31 January 2016, they must reduce it by no more than the same amount over the following two years).

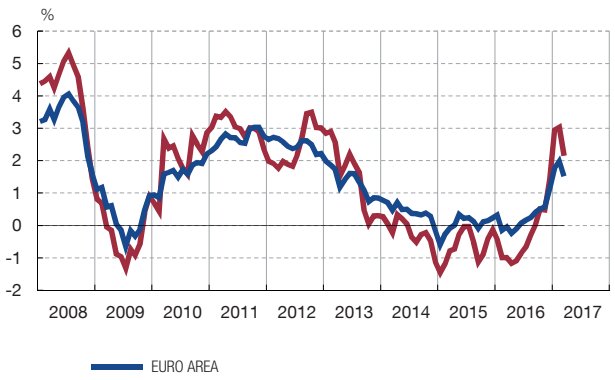
EURO AREA: GDP, INFLATION, INFLATION EXPECTATIONS AND EUROSYSTEM BALANCE SHEET

CHART 1.2

1 GROSS DOMESTIC PRODUCT (a)

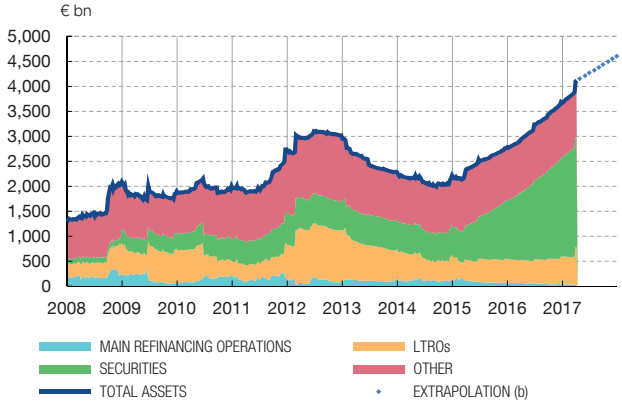


2 HARMONISED INDICES OF CONSUMER PRICES (a)



3 EURO AREA INFLATION EXPECTATIONS DERIVED FROM INFLATION-LINKED SWAPS

4 EUROSYSTEM BALANCE SHEET



SOURCES: Eurostat, INE, european Commission, ECB and Banco de España.

a Year-on-year rates of change in seasonally adjusted series for GDP and in original series for the consumer price indices.
b For the extrapolation, the latest observed balance sheet value is increased monthly on the basis of the securities acquisitions scheduled in the Expanded Asset Purchase Programme, while maintaining the observed rate of reduction of the portfolio of securities from the inactive programmes (SMP, CBPP and CBPP2).

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in economies, such as the German one, with lower rates of unemployment, and with no appreciable second-round effects on wages as a consequence of the rise in the oil price having been detected to date.

Forecasts suggest that growth will remain moderate in the medium term and that inflation will converge slowly towards the medium-term price stability target of monetary policy. The recovery in the euro area remains highly dependent on the support provided by monetary policy. According to some estimates,[4] monetary policy would explain up to 1.7 pp of the GDP growth and 1.5 pp of the HICP growth recorded between 2016 and 2019. Even so, GDP is forecast to grow at moderate rates, similar to those of 2016. As regards prices, inflation is expected to fall back below 2% in the second half of 2017, on the assumption that the prices of oil and other commodities will stabilise at around their current levels and that the recent rises will not lead to significant increases in other prices or in wages. The potential downside risks to which these inflation projections

4 These estimates are based on an update of those published in Chapter 3 of the 2015 Annual Report of the Banco de España.

are subject should have begun to level off in part, in line with the rise in the various market-based measures of inflation expectations observed since autumn 2016 (see Chart 1.2).

2.3 FIRMING OF THE RECOVERY IN THE SPANISH ECONOMY

In 2016 the Spanish economy grew by more than expected at the end of the previous year. The upswing in the Spanish economy that began in the second half of 2013 was sustained last year, with GDP growth, in the year as a whole, of 3.2%, the same rate as in 2015. Activity had a smooth profile over the year, and continued to do so in the initial stages of 2017. In addition, as in recent years, developments during 2016 proved to be more favourable than had been anticipated during the previous year, despite the domestic political uncertainty that prevailed during most of the year.[5] Specifically, GDP grew in 2016 by half a percentage point more than was projected at the end of 2015.[6] The behaviour of the various components of final demand – with the exception of government consumption and tourism – was less expansionary than expected, but imports grew significantly less than expected. Section 2.3.1 analyses the factors contributing to the favourable behaviour of activity during the recovery. Subsequently, Section 2.3.2 reviews in detail the main aspects of Spain's economic performance in 2016.

2.3.1 Factors responsible for the current upswing

The strength of the current recovery is partly a result of the impact of certain predominantly temporary factors, such as the expansionary stance of demand policies and the decline in the price of oil. The strength of the recovery during the three-year period 2014-2016 was greater than expected. When the projections for this period made by the Banco de España in spring 2014 (when the recovery was beginning to take hold) are compared with the data eventually observed, it can be seen that GDP grew by a total of 3.2 pp more than was projected.[7] This deviation is partly explained by a very diverse set of factors, characterised by a certain degree of transitoriness, including a demand (fiscal and monetary) policy stance that was clearly more expansionary than projected and a notably lower oil price path. In contrast to these factors, which tended to boost activity, Spain's export markets proved to be less dynamic than was expected almost three years ago. Box 1.2 presents an estimate of the overall effect of these factors on GDP growth which, at 2.2 pp, would explain somewhat more than two-thirds of the 3.2 pp forecasting error in the mid-2014 projections for the period 2014-2016.

These factors, along with some other more permanent ones, explain why growth was higher than in the euro area as a whole. Moreover, as explained in Box 1.2, the impact of these temporary factors appears to have been greater in Spain than in the euro area as a whole. In conjunction with some other more permanent factors, this would explain why during the period considered GDP growth was higher in Spain than in the euro area. As regards factors with a more lasting impact, partly associated with the previous implementation of various reforms, the role played by the re-establishment of competitiveness relative to the euro area, in terms of labour and financial costs, is notable. This development would largely explain the sequence of the recovery, initially characterised by buoyant exports, with the components of national demand coming into play later, as analysed in detail in Chapter 2 of the 2015 Annual Report.

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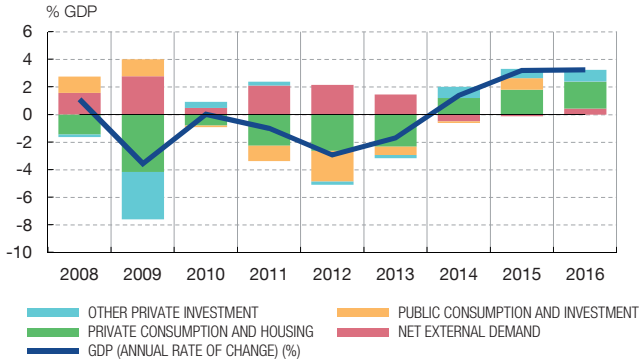
5 For a quantification of the impact of these uncertainties, see M. Gil, J. Pérez and A. Urtasun (2017) "Macroeconomic uncertainty: measurement and impact on the Spanish economy", *Economic Bulletin,* 1/2017, Banco de España.

6 See the "Quarterly report on the Spanish economy", *Economic Bulletin*, Banco de España, December 2015.

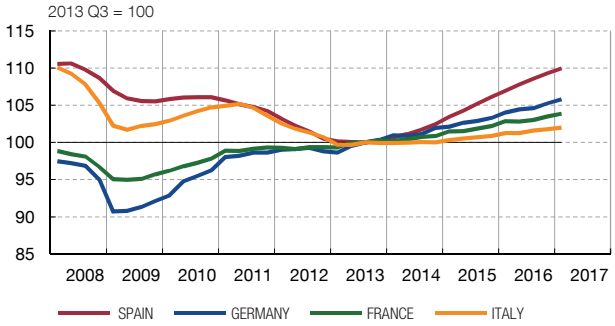
7 The choice as starting point of the contribution of the Banco de España to the Eurosystem's joint projection exercise of June 2014 is justified because these were the first projections to include 2016 in the forecast horizon. This means that the complete period of the recovery is not considered, since it had begun several quarters previously. However, it was still in its relatively early stages.

SPAIN: GDP AND ITS COMPOSITION, AND INTERNATIONAL COMPARISON CHART 1.3

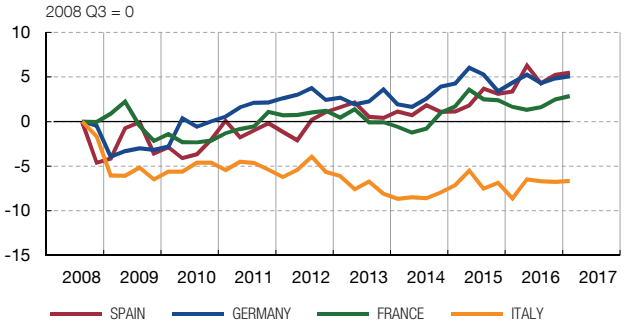
1 GDP, NATIONAL DEMAND COMPONENTS AND EXTERNAL DEMAND
Annual rates of change and contributions to growth



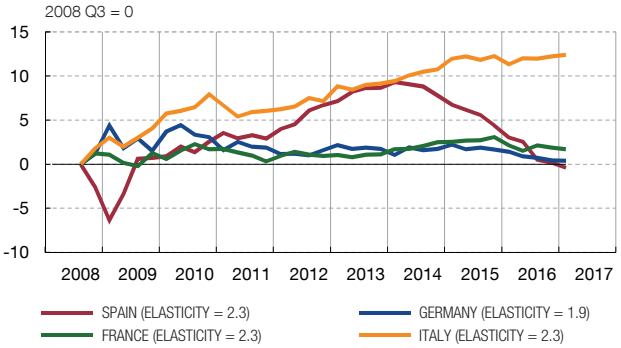
2 GDP
Real levels



3 CUMULATIVE EXPORT GROWTH RELATIVE TO GROWTH IN EXPORT MARKETS (a)



4 CUMULATIVE GROWTH IN IMPORTS RELATIVE TO GROWTH ESTIMATED ON THE BASIS OF FINAL DEMAND (b)



SOURCES: INE and Banco de España.

a The line for each country represents the difference between the cumulative growth in goods and services exports and the cumulative growth in the foreign markets in which they are sold.
b The line for each country represents the difference between the actual growth of imports in cumulative terms and the growth derived from the historical relationship between imports and final demand (its scale variable). The relevant elasticity value is indicated in the legend after the name of each country.

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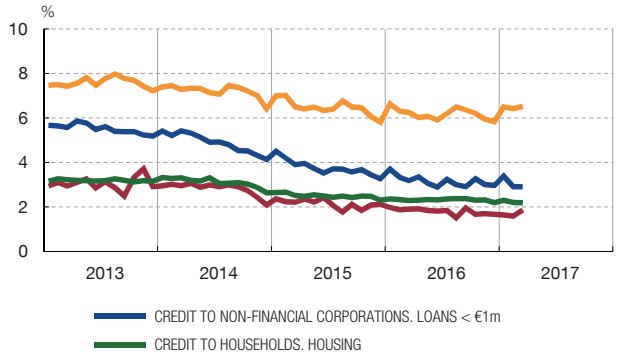
The price and cost competitiveness improvements have also helped to boost output growth and to achieve external surplus. Since the start of the recovery in 2013 GDP growth in Spain has exceeded that recorded by each of the three largest euro area economies (see the top right-hand panel of Chart 1.3). From the viewpoint of the contributions of the various demand components, this has been mainly due to the recovery in domestic demand, but also to the more favourable behaviour of net external demand in the case of the Spanish economy. Specifically, if the increase in the exports of each of the four countries during this period is compared with the growth of their respective external markets, the highest relative increase can be seen to have occurred in Spain (see the bottom left-hand panel of Chart 1.3). Turning to purchases from abroad, Spanish imports have grown since the end of 2013 by some 8 pp less than would be expected given their historical relationship to final demand. This departure from the historical relationship was not observed in the other countries of the sample and may indicate that a process of import substitution began in this period, linked to competitiveness gains (see the bottom right-hand panel of Chart 1.3).[8]

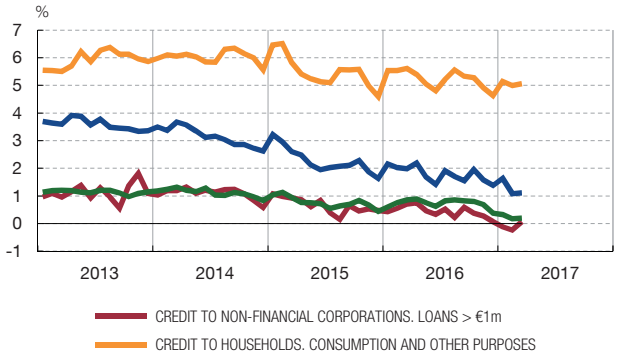
8 This gap between actual imports and those predicted on the basis of the growth of final demand is maintained when the various components are allowed to have different weights in the construction of this latter variable according to their respective import content.

FINANCING CONDITIONS IN THE SPANISH ECONOMY CHART 1.4

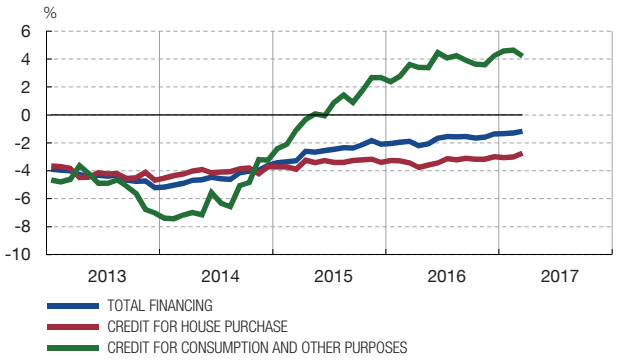
1 BANK LENDING RATES. SPAIN



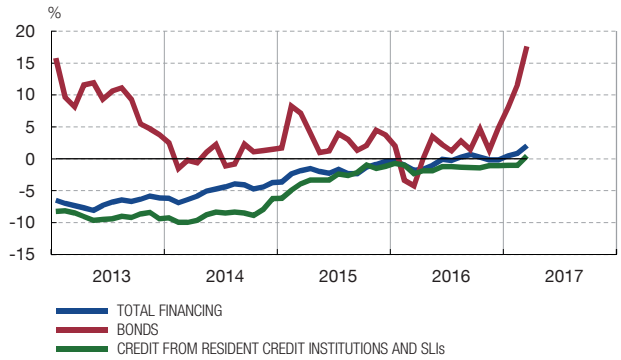
2 REAL BANK LENDING RATES (a). SPAIN



3 FINANCING OF HOUSEHOLDS
Year-on-year rates of change



4 FINANCING OF NON-FINANCIAL CORPORATIONS (b)



SOURCES: ECB and Banco de España.

a The real interest rates were calculated by deducting from the nominal rates inflation expectations at different horizons obtained from inflation-linked swaps for Spain. For credit for house purchase, the 15-year term was used; for credit for consumption and other purposes, the 5-year term; and for credit to non-financial corporations, the 10-year term.
b Includes loans granted by resident credit institutions and specialised lending institutions, bonds issued by non-financial corporations and their resident subsidiaries and loans from abroad.

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2.3.2 The Spanish economy in 2016

In 2016, financial conditions continued to support private spending. In terms of the nominal rates institutions apply to their loans, further declines were observed in most segments, although they were less pronounced than in the preceding years (see Chart 1.4). Funding conditions on wholesale markets also improved until the autumn, favoured by the extension, from June, of the asset purchase programme of the European Central Bank to include corporate debt, which led in the case of large firms to some substitution of fixed-income securities for bank lending, given the relative path of the cost of these two funding mechanisms, as analysed in detail in Chapter 2 of this Report.[9] In addition, the Survey on the Access to Finance of enterprises in the euro area (SAFE) and the bank lending survey (BLS) show an improvement in access to credit for households and businesses alike.[10]

The benign financial conditions were conducive to the growth of new lending to households and businesses and to private spending. In the second half of the year, however, a certain slowdown in lending activity was observed, linked to demand factors

9 See S. Mayordomo (2016), «El programa de compras de bonos corporativos del Eurosistema y su efecto sobre la financiación ajena de las sociedades no financieras españolas», *Boletín Económico*, Banco de España.
10 For further details see A. Menéndez, "Encuesta sobre Préstamos Bancarios en España: enero de 2017", *Boletín Económico*, Banco de España, 1/2017, and Box 6, *Economic Bulletin*, Banco de España, June 2016.

and in the particular case of large firms, as mentioned above, to their greater preference for fixed-income security funding.[11] In any event, the growth in new flows of external financing caused the contraction in outstanding debt of households in business to moderate gradually during the year (see Chart 1.4). The reduction in debts, along with the growth in income and the moderation in average financing costs, led to a further decline in the debt and debt burden ratios of both sectors.

The financing received by credit institutions saw further improvements. During the year, credit institutions perceived an improvement in the conditions of access to wholesale funding markets and no change in those for retail markets. These developments were favoured by monetary policy measures. Thus, according to the replies of institutions to the BLS, the liquidity obtained through asset purchase programmes and TLTROs helped to improve their financial position, in terms of financing conditions, liquidity and profitability. According to this same source, such measures contributed to easier conditions on loans to households and, to a greater extent, on those to businesses.[12]

Household spending, boosted by a strong rate of job creation, was highly buoyant. The behaviour of household spending on consumer goods and services was expansionary in 2016, with growth of 3.2%, 0.3 pp more than in 2015 (see Table 1.1). As in the previous year, private consumption was driven by the buoyancy of job creation, against a background of nominal compensation moderation (see Chart 1.5).[13] In the later stages of 2016 and in early 2017 the strength of private consumption was sustained, without the negative impact of the reduction in household purchasing power stemming from the rise in oil prices having been significant to date. That said, there seem to be signs of a gradual tail-off in the strong pick-up in spending on durable goods observed during the initial stages of the recovery.[14]

The improvement in the financial position of households and the decline in their debt burden also contributed to the buoyancy of household spending. The continuation of the decline in interest rates also had a favourable impact on consumption, insofar as the marginal propensity to consume of net savers is presumably lower than that of debtor agents, since the latter are more likely to be subject to liquidity constraints. Moreover, the increase in the value of total household wealth (of 3.5%, which stemmed from both the real and financial components), as well as the reduction in the debt burden and indebtedness (of 0.4 and 4.9 pp, respectively, of disposable income), contributed to the buoyancy of private consumption.

The households sector continues to finance the economy in net terms. Household consumption grew somewhat more strongly than household income, so that the proportion of the latter devoted to saving fell by 0.5 pp, to 7.7%. Residential investment displayed moderate growth, similar to that seen in 2015, which enabled household saving to continue to exceed total household spending. Specifically, household net lending stood at 1.9% of GDP, somewhat below the average level observed since the start of the crisis. If, against a background of lower

11 For further details of the recent process of disintermediation of the financing of Spanish non-financial firms, see Chapter 2 of this Report.

12 In particular, non-financial corporations, which have little option of issuing fixed income securities, indicated in their replies to the SAFE that their access to credit improved over the year, and that they did not perceive this factor as being an obstacle to developing their business.

13 The available evidence, from aggregate consumption functions and macroeconomic data, suggests that the marginal propensity to consume an additional unit of income arising from an increase in employment is greater than when it arises from an increase in real wages, since labour income arising from employment is more likely to amount to an increase in permanent income (see Chapter 2, 2015 Annual Report, Banco de España).

14 The data on private vehicle registrations suggest this to be the case.

MAIN INDICATORS OF THE SPANISH ECONOMY (a)

TABLE 1.1

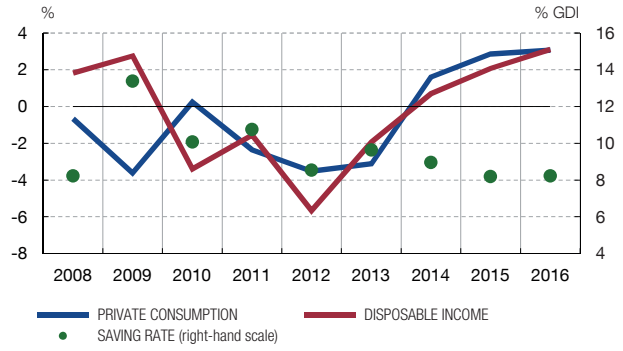
	2011	2012	2013	2014	2015	2016
Demand and output (b)						
GDP	-1.0	-2.9	-1.7	1.4	3.2	3.2
Private consumption	-2.4	-3.5	-3.1	1.6	2.9	3.2
Government consumption	-0.3	-4.7	-2.1	-0.3	2.0	0.8
Gross capital formation	-7.2	-9.5	-4.6	5.4	6.5	3.8
Investment in equipment	0.8	-6.2	4.9	8.1	8.8	5.0
Construction investment	-11.7	-12.3	-8.6	1.2	4.9	1.9
Housing	-13.3	-10.3	-10.2	6.2	3.1	3.7
Other construction	-10.2	-13.9	-7.3	-2.6	6.4	0.4
Exports of goods and services	7.4	1.1	4.3	4.2	4.9	4.4
Imports of goods and services	-0.8	-6.4	-0.5	6.5	5.6	3.3
Contribution of national demand to GDP growth	-3.1	-5.1	-3.2	1.9	3.3	2.8
Contribution of net external demand to GDP growth	2.1	2.2	1.5	-0.5	-0.1	0.5
Employment, wages, costs and prices (c)						
Total employment	-2.8	-4.8	-3.4	1.1	3.0	2.9
Employment rate (d)	58.8	56.5	55.6	56.8	58.7	60.5
Unemployment rate	21.4	24.8	26.1	24.4	22.1	19.6
Compensation per employee	0.9	-0.6	1.4	0.0	0.4	0.0
Apparent labour productivity	1.8	2.0	1.8	0.3	0.2	0.4
Unit labour costs	-0.9	-2.5	-0.4	-0.3	0.2	-0.4
GDP deflator	0.0	0.1	0.4	-0.3	0.5	0.3
Consumer price index (end of period)	2.4	2.9	0.3	-1.0	0.0	1.6
Consumer price index (annual average)	3.2	2.4	1.4	-0.2	-0.5	-0.2
Consumer price differential with the euro area (HICP)	0.3	-0.1	0.2	-0.6	-0.7	-0.1
Net lending (+) or net borrowing (-) and financial balance (e)						
Resident sectors: domestic net lending (+) or net borrowing (-)	-2.9	0.1	2.1	1.5	2.0	2.0
General government	-9.6	-10.5	-7.0	-6.0	-5.1	-4.5
General government (excluding aid to financial institutions)	-9.3	-6.8	-6.7	-5.9	-5.1	-4.3
Households and NPISHs	2.6	2.2	4.0	3.2	2.5	1.9
Firms	4.1	8.3	5.1	4.2	4.6	4.7
Financial institutions	2.1	6.9	2.2	2.3	1.7	1.9
Non-financial corporations	2.1	1.4	2.9	1.9	2.8	2.8
Net international investment position	-91.9	-89.9	-94.3	-97.5	-91.3	-85.7
General government gross debt	69.5	85.7	95.4	100.4	99.8	99.4
Monetary and financial indicators (f)						
ECB minimum bid rate on MROs	1.3	0.9	0.5	0.2	0.1	0.0
Ten-year government bond yield	5.4	5.8	4.6	2.7	1.7	1.4
Synthetic bank lending rate	4.1	4.1	4.1	3.8	2.9	2.7
Madrid Stock Exchange General Index (Dec 1985 = 100)	971.8	767.5	879.8	1,066.6	1,080.5	879.2
Dollar/euro exchange rate	1.4	1.3	1.3	1.3	1.1	1.1
Nominal effective exchange rate vis-à-vis developed countries (g)	101.6	100.2	101.5	101.5	99.3	99.9
Real effective exchange rate vis-à-vis developed countries (h)	113.8	107.3	106.9	105.9	103.3	102.7
Real effective exchange rate vis-à-vis the euro area (h)	111.6	106.5	104.7	103.7	103.7	102.6
Households: total financing	-2.4	-3.8	-5.2	-3.6	-2.1	-2.0
Non-financial corporations: total financing	-2.0	-6.4	-6.1	-3.7	-0.4	-0.4

SOURCES: INE, IGAE, AMECO and Banco de España.

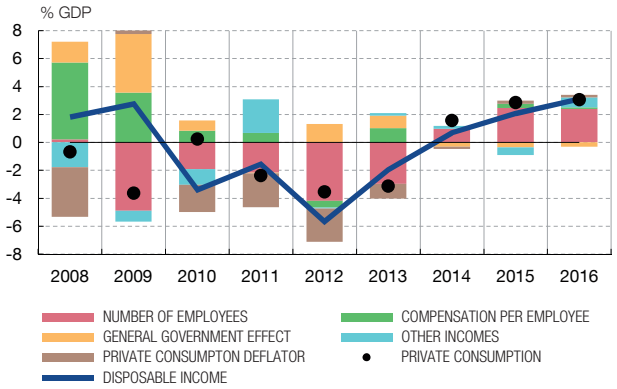
a Spanish National Accounts data, base year 2010.
b Volume indices. Annual rate of change.
c Rate of change, except the unemployment rate, which is a level.
d Employment rate (16-64).
e Levels as a percentage of GDP.
f Annual average levels for the Madrid Stock Exchange General Index, interest rates and exchange rates, and rates of change for financial liabilities.
g 1999 Q1 = 100.
h 1999 Q1 = 100. Measured with unit labour costs.

SPAIN: HOUSEHOLD CONSUMPTION, INCOME AND SAVING CHART 1.5

1 PRIVATE CONSUMPTION AND DISPOSABLE INCOME
Real annual rates of change



2 PRIVATE CONSUMPTION AND DISPOSABLE INCOME
Contributions to the real annual rate of change



SOURCES: INE and Banco de España

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real income growth, the relatively high spending growth rates are to be sustained in 2017, the saving ratio and household net lending will have to decline somewhat further.

The generation of high levels of income by non-financial corporations underpinned their investment spending. Business investment in 2016 was somewhat weaker than in the previous year, with estimated growth of close to 6%[15], in a context of growth in final demand and in capacity utilisation. As explained in Chapter 2 of this Report, financial factors continue to play a very significant role in the growth of this aggregate. In particular, business investment was spurred by the continued dynamism of the income of non-financial corporations, based on the notable growth of the gross operating surplus, which was in turn related to the moderation in personnel costs, the low level of oil prices and the decline in financial expenses mentioned above. Also, the restructuring of business balance sheets has facilitated access to external funding.[16]

The availability and cost of external financing were also favourable to business investment. The rates of change in the total financing received by non-financial corporations became progressively less negative. In parallel, the financial position of the sector strengthened, with a reduction in its debt and debt burden ratios. The solid generation of own funds, the availability of low-cost external financing and the improved financial position of companies mitigated the possible contractionary effects arising from the uncertainty over the direction of economic policy that prevailed for most of the year. In 2016, non-financial corporations as a whole once again recorded positive net lending, as they have in each year since the start of the crisis, reflecting the net deleveraging that has been taking place.[17] In 2016, the surplus of the sector amounted to 2.8% of GDP, unchanged from the previous year, with rises of 0.7 pp in its saving and investment ratios.

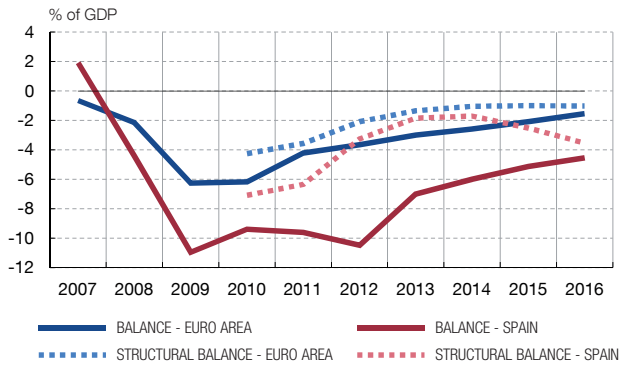
Fiscal policy, as in 2015, was expansionary, although economic growth enabled the debt-to-GDP ratio to decrease slightly. Government consumption grew by 0.8% in real

15 The figure of non-financial corporations' investment in real terms is not provided by the National Accounts. It must thus be estimated on the basis of the information available for investment spending by this sector in nominal terms and for the deflators of the different components of gross capital formation.
16 See Box 2.2 of Chapter 2 of this Report.
17 See Chapter 2 of this Report.

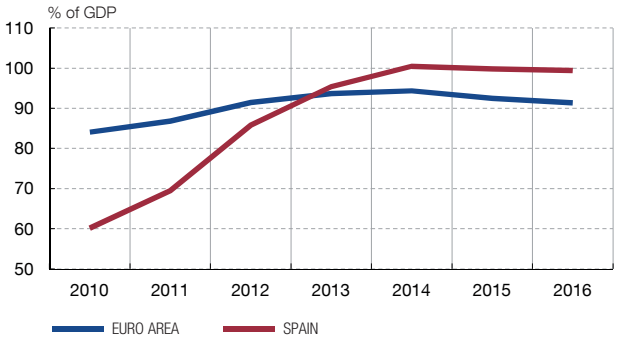
GENERAL GOVERNMENT BALANCE AND DEBT

CHART 1.6

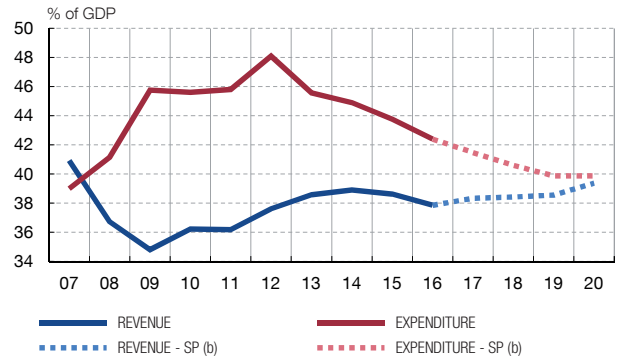
1 ACTUAL BALANCE AND STRUCTURAL BALANCE (a)



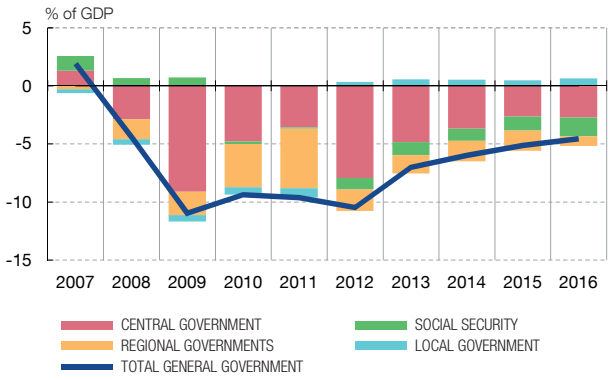
2 EXCESSIVE DEFICIT PROTOCOL (EDP) DEBT



3 GENERAL GOVERNMENT REVENUE AND EXPENDITURE



4 GENERAL GOVERNMENT BALANCE BY SUBSECTOR



SOURCES: AMECO and Banco de España

a The cyclically-adjusted actual balance, net of temporary measures.
b Stability Programme (SP) projections.

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terms in 2016, 1.2 pp less than in 2015. Unlike in the private sector, the resources of general government were insufficient to finance its spending, leading to a deficit of 4.5% of GDP, 0.6 pp less than in 2015 (see Chart 1.6). In particular, there were reductions in the public revenue and, to a greater extent, public spending ratios. In the case of the former ratio this was mainly due to the impact of the reform of direct taxation, while in that of the latter one there was a notable reduction in government consumption as a percentage of GDP, with decreases in expenditure on goods and services and on compensation of employees. Lower government dissaving and the decline in the public investment ratio both contributed to the fall in general government net borrowing as a proportion of GDP. This was solely due to the improved cyclical position of the economy, since, according to the latest European Commission estimates, the structural primary deficit (which measures the fiscal policy stance) deteriorated by 1.3 pp, 0.1 pp more than recorded a year earlier. Thus, in 2016, budgetary policy was expansionary for the second year running. The total structural deficit deteriorated by 1.8 pp between the beginning of 2015 and the end of 2016, to 3.5% of GDP, its highest level since 2011 (see Chart 1.6). Meanwhile, the strong GDP growth more than offset the effects of the still-high deficit on the public debt-to-GDP ratio, reducing it slightly, to 99.4% (0.4 pp less than in 2015).

The improvements in the cyclical position and in the interest burden facilitated achievement of the budget deficit target, which had been revised upwards by the

European authorities in August. The actual deficit was 0.1 pp lower than the new target of 4.6% of GDP set by the European Council in August in the context of the excessive deficit procedure of the Stability and Growth Pact.[18] The relaxation of the budget target, from the initial level of 2.8% of GDP, accommodated the deviations anticipated, in particular, in public revenue. The European Council requested the adoption of appropriate measures in the event that risks of overshooting the new target were detected, which led to the approval of certain adjustment measures, such as the reinstatement of minimum amounts for advance payments of corporate income tax. By subsector, the reduction in the aggregate deficit mainly stemmed from the adjustment in the regional government deficit of 0.9 pp of GDP, given that the deficits of central government and of the Social Security System each deteriorated by 0.1 pp and the local government surplus increased by 0.1 pp (see lower right-hand panel of Chart 1.6).

Exports remained notably strong, with a very positive performance by tourism. Sales abroad of goods and services grew by 4.4% in 2016, 0.5 pp less than in the previous year. However, this slowdown was less marked than that in the growth of foreign markets, which grew by 1.6 pp less than in 2015. The favourable behaviour of the Spanish economy's sales abroad last year is all the more notable in the light of the increase of only 2.7% in this variable in the euro area as a whole. The factors underlying this favourable performance by Spanish exports are analysed in Chapter 3 of this Report. Among the various items of this aggregate, the performance of inbound tourism was notable. This is a very labour intensive sector, whose strength in 2016 reflected a number of different factors. Some of these are to a certain degree transitory, such as the buoyancy of some of the traditional tourism-generating markets (and, in particular, the small initial impact of the depreciation of the pound on the British market), the boom in tourists from markets that have until now been less established (like Asia and Latin America) and the security problems in certain alternative destinations, while others are more persistent, such as the improvements in the price competitiveness of the national tourist industry, a factor which would explain around one-third of the total growth in tourism exports in 2016.[19]

The key development in relation to the external sector was the moderation in the growth rate of imports. Purchases from abroad grew by 3.3%, a very low rate considering that it is approximately the same as the growth rate of final demand and that the elasticity of the former with respect to the latter is normally estimated to be about two. Section 4.2 of Chapter 3 of this Report provides evidence to suggest that the bulk of the moderation in the growth of imports stemmed from imports of non-energy intermediate goods, whose weight in total output has fallen significantly in various manufacturing industries, such as the automotive sector. The evidence at the microeconomic level, of a declining proportion of Spanish firms' total inputs that are imported, is consistent with this.[20]

In 2016, the net lending of the economy as a whole remained high, partly due to factors that are expected to be temporary. Last year, the net lending of the economy stood at 2% of GDP, the same level as in the previous year (see Chart 1.7). With respect to 2015, the goods and services balance increased by 0.5 pp. Of this increase, some two-thirds is attributable to the higher growth in real exports with respect to imports, while the rest is due to the improvement in the terms of trade, i.e. the difference between the growth rates of export and import prices, a development that is strongly linked to the changes in

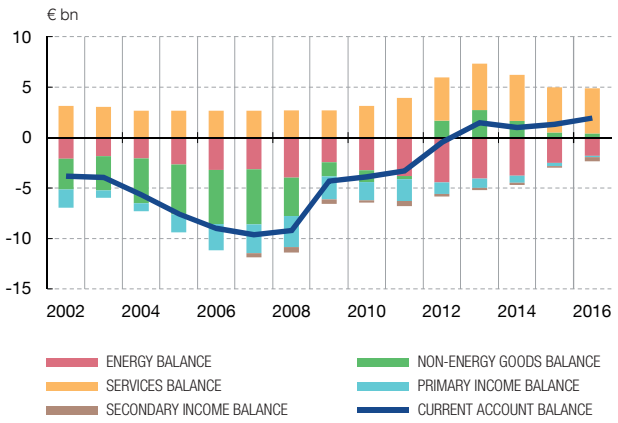
18 Excluding assistance to the financial institutions sector, the deficit was 4.3% of GDP.

19 See Box 7, "Quarterly Report on the Spanish Economy", *Economic Bulletin*, Banco de España, 1/2017.

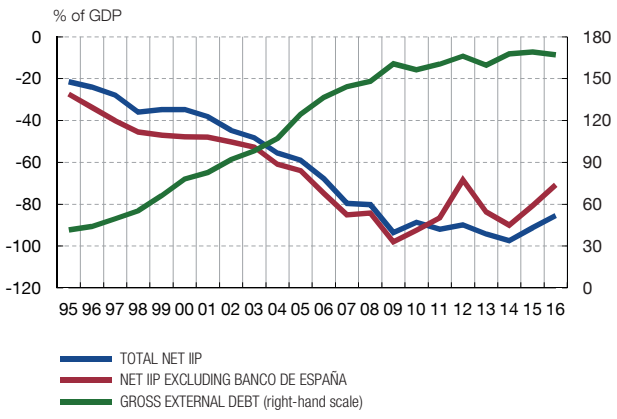
20 See Chapter 2, 2015 Annual Report, Banco de España and E. Prades and C. Villegas-Sánchez (2017), *"Input trade and importers in Spain"*, Working Paper, forthcoming.

SPAIN: CURRENT-ACCOUNT BALANCE AND NEGATIVE EXTERNAL POSITION CHART 1.7

1 CURRENT ACCOUNT BALANCE



2 NET INTERNATIONAL INVESTMENT POSITION (IIP) AND GROSS EXTERNAL DEBT (a)



SOURCE: Banco de España.

a Gross external debt is the amount pending repayment at a given time of real and non-contingent current liabilities assumed by an economy's residents vis-à-vis non-residents, with the commitment to make future payments of principal and/or interest. It therefore includes: debt securities, allocated special drawing rights, deposits, loans, trade credit and other liabilities.

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the prices of oil and other non-energy commodities. As analysed in Chapter 3, the path of the external balance is determined by diverse factors, including temporary ones and other more persistent ones, relating to external competitiveness improvements and certain changes in the productive structure or in world demand for different products.[21] In this context, the improvement in the terms of trade is fundamentally temporary in nature, tending to reverse when the oil price rises. In fact, the path of oil prices in futures markets considered in the projections of the Banco de España of last March would result in an increase in the energy bill of some 0.4 pp of GDP this year.[22] In addition, in the current account components there was a decline in the negative income balance (of 0.1 pp) in 2016, as a consequence of the decline in interest rates.

From a sectoral point of view, industry has recovered strongly in recent years, although only services have exceeded their pre-crisis level of activity. The recovery in industry from the cyclical trough has been stronger than that in services, with growth in their respective value added of around 10% and 8% (see Chart 1.8). However, only services have exceeded their pre-crisis level, by some 6 pp. Within services, professional activities and information and communication have been especially vigorous. A comparison with other euro area countries shows that the increase in value added in industry in Spain, since mid-2013, has been more than 4 pp higher than in Germany and approximately 8 pp higher than in France and Italy.

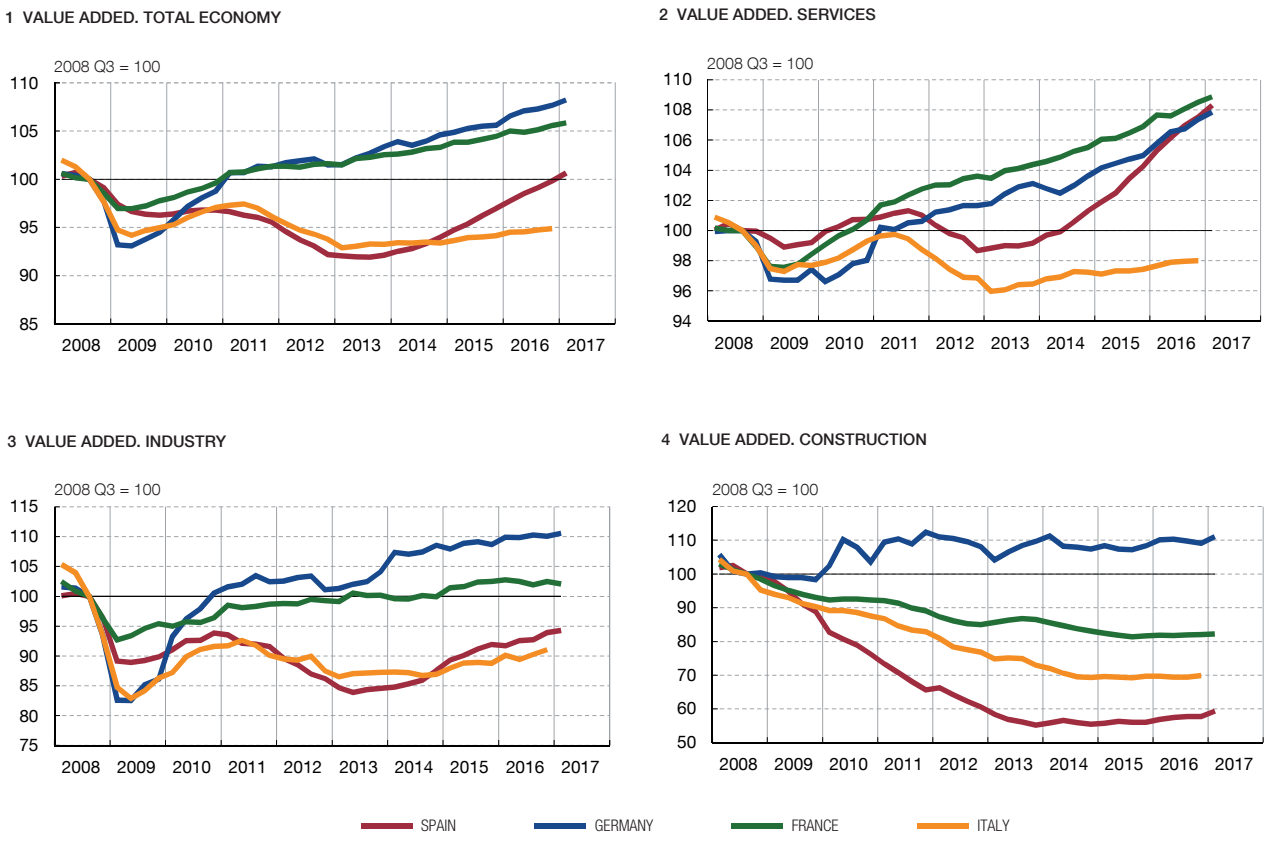
The strong employment growth in recent years has enabled a considerable part of the job losses since 2008 to be recovered, although employment is still well below its pre-crisis level. Between the end of 2013 and the end of 2016 almost 1.4 million new jobs were created, which means that almost half of the jobs destroyed during the crisis have been recovered. However, although aggregate activity will foreseeably reach its pre-crisis

21 In particular, as indicated in Chapter 3 of this Report, approximately half of the correction of the current account balance between 2008 and 2015 would be explained by the business cycle and the decline in oil prices.

22 These figures correspond to the €9 rise in the average price of a barrel of oil in 2017, with respect to 2016, given the elasticities estimated in Box 1.2, 2014 Annual Report, Banco de España.

VALUE ADDED BY COUNTRY AND SECTOR

CHART 1.8



SOURCES: INE and Banco de España.

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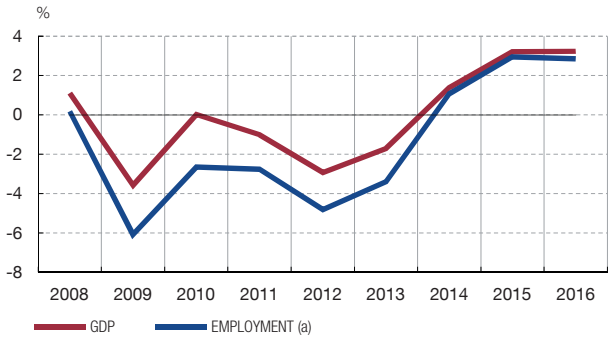
level in mid-2017, employment at the end of 2016 was still, according to the Spanish Labour Force Survey (EPA), 10.4% below its mid-2008 peak.

The services sector has been more dynamic in terms of job creation. The creation of new jobs during the recovery has been heavily concentrated in services activities, both in market services, principally accommodation and food service activities, trade, and to a lesser extent, transport activities, and in non-market services (education and health). In construction and industry, employment is still only 42% and 79%, respectively, of its pre-crisis levels.

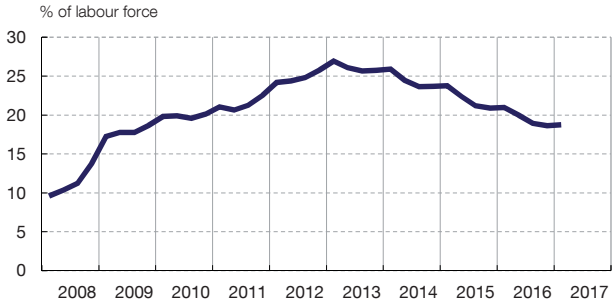
In accordance with the usual cyclical pattern, there were large increases in apparent labour productivity during the crisis, followed by a notable slowdown during the recovery. The growth of this variable in the Spanish economy is markedly countercyclical, with strong increases during recessions and very low (or even negative) growth during upturns. In accordance with this pattern, there was a broad-based increase in apparent labour productivity during the last recession, concentrated in industries employing relatively lower skilled workers, while, during the current recovery phase, this variable has moderated significantly, the changes in the sectoral composition of the economy not having been conducive to its buoyancy. In this context, the largest productivity gains have been recorded by industry and, within services, by trade, transport, accommodation and food service activities and professional services. In any event, total factor productivity is making a greater contribution to apparent productivity growth than in previous recoveries and, should it continued to do so, this would indicate an improvement in the economy's efficiency.

SPAIN: LABOUR MARKET DEVELOPMENTS CHART 1.9

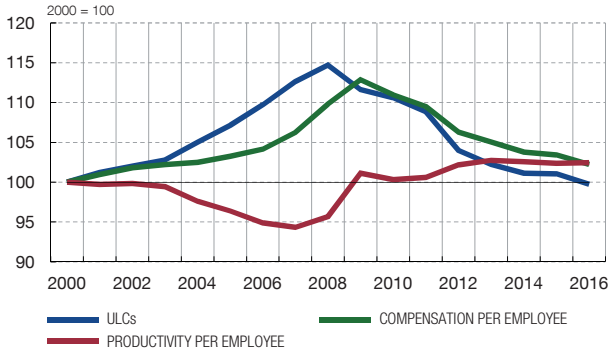
1 GDP AND EMPLOYMENT
Annual rates of change



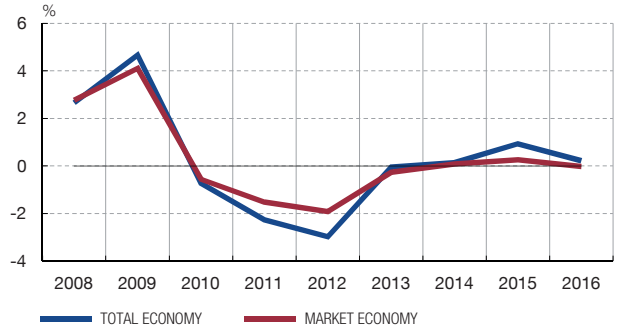
2 RATE OF UNEMPLOYMENT



3 UNIT LABOUR COSTS IN SPAIN RELATIVE TO THE EURO AREA



4 REAL WAGES (b)
Annual rates of change



SOURCES: Eurostat and INE.

a Full-time equivalent jobs.
b QNA nominal compensation per employee deflated by the CPI.

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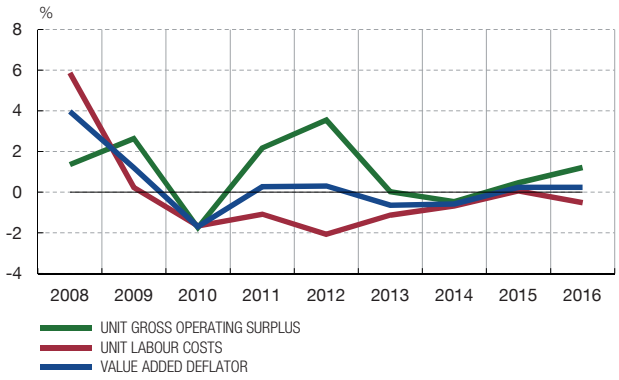
The rate of unemployment is falling rapidly, although the level of unemployment remains very high. In 2016, employment grew by 2.9%. Given the slight decline in the labour force, this strong rate of job creation was able to reduce the rate of unemployment to 18.75% in 2017 Q1, 8.2 pp below the peak reached at the beginning of 2013 (see Chart 1.9). Despite this decline, the current level of unemployment is still significantly higher than in most euro area countries.

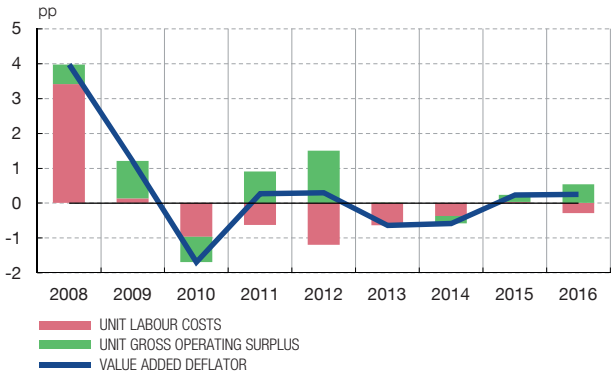
The upward trend in the temporary employment ratio has resumed. Since the end of 2013, 54% of all new jobs have been temporary ones. Specifically, this form of employment grew by 6.8% in 2016, 5 pp more than permanent employment, broadly reflecting the usual pattern in the Spanish economy during cyclical recoveries. As regards employment destruction, losses of temporary jobs appear to have returned to around their pre-2008 levels, although labour turnover among temporary workers remains at high levels, with outflows from temporary employment to unemployment still above their pre-crisis levels. The overall result of this behaviour is that temporary employment was 26.5% of total paid employment, 4.5 pp above the low reached in early 2013, but still well below the level reached in 2007, at the end of the previous upswing (31.6%). By contrast, part-time employment, which increased sharply when the crisis was most acute, has been less buoyant since 2014, most of the jobs created since the end of 2013 having been full-time ones.

SPAIN: MARKET ECONOMY VALUE ADDED DEFLATOR AND ITS COMPONENTS CHART 1.10

1 MARKET ECONOMY VALUE ADDED DEFLATOR



2 MARKET ECONOMY VALUE ADDED DEFLATOR
Contribution to annual rate of change



SOURCES: INE and Banco de España.

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Significant employment creation took place against a background of continued wage moderation. In the economy as a whole, compensation per employee posted zero growth in 2016 (see Chart 1.9). In the private sector, compensation declined by 0.2%, a similar rate to the past two years. Given the decrease of the same magnitude in consumer prices, this meant that real wages were constant. The moderation in labour remuneration was attributable to two factors. First, the limited growth of wages in collective agreements (1.2% on average). Settlements were moderate even in newly signed agreements and, despite the ongoing improvement in employment and the ease in inflation during the year, the latter settlements did not increase as the year elapsed, probably reflecting the still high level of unemployment.[23] Second, newly hired employees were paid a lower average wage than existing employees, which contributed to negative wage drift of somewhat more than 1 pp.[24]

Price competitiveness indicators continue to improve, despite the expansionary behaviour of the profit margin. The Spanish economy continued to make competitiveness gains relative to the euro area in 2016, both in terms of unit labour costs and the value-added deflator, albeit at a slower rate than in previous years (see Chart 1.10). The profit margin behaved countercyclically over the period 2008-2013, when it generally followed an upward path, partly associated with the need for businesses to improve their financial position, against a background of higher borrowing costs and greater difficulty accessing borrowed funds.[25] Subsequently, in the period 2014-2015, the growth rate of this variable slowed to a rate in line with unit labour costs. However, in 2016 there was a further rise, which may be indicative of insufficient competition in some markets, against a background of rising demand pressures (see Chart 1.10).

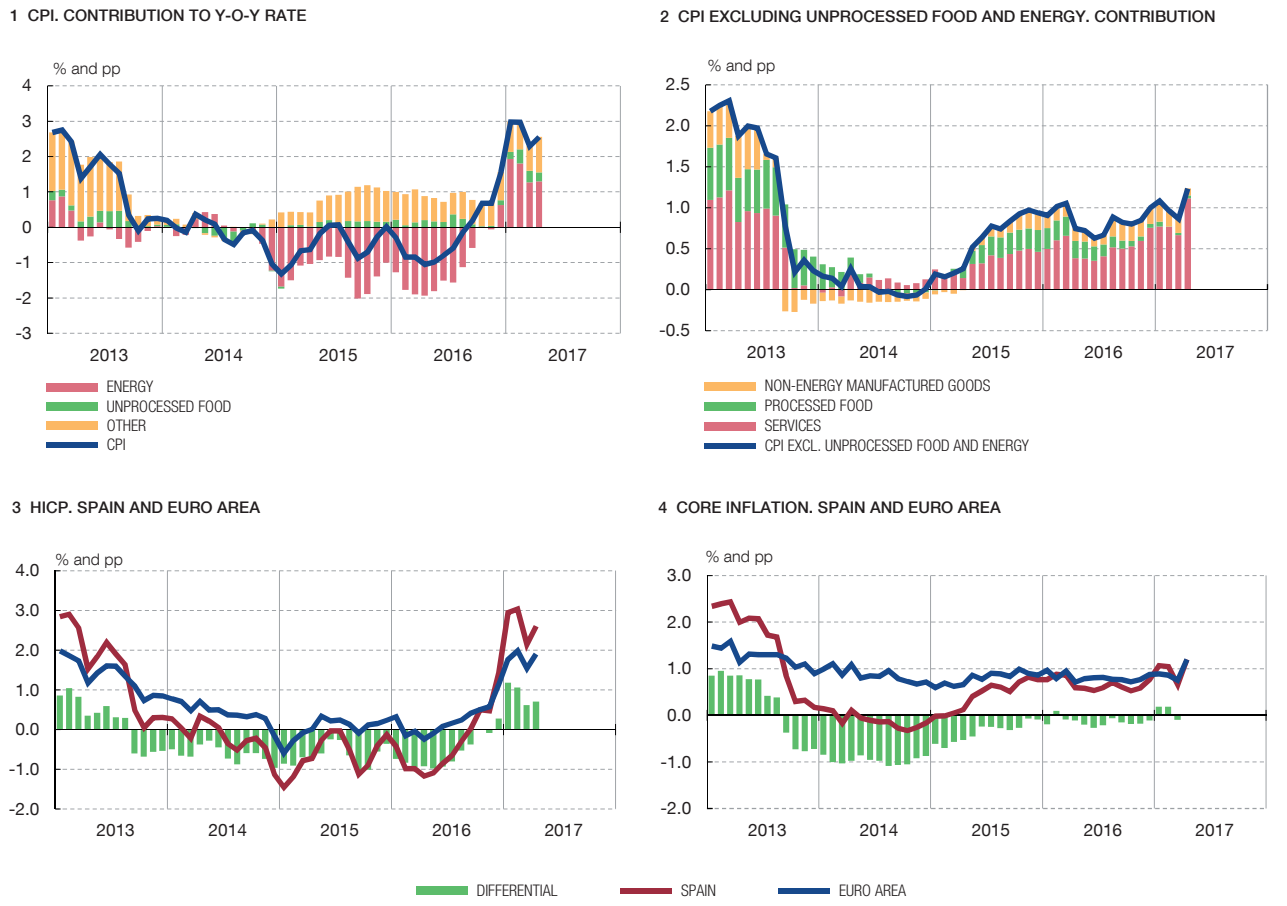
The rate of inflation rose from the summer onwards, driven by the energy component, but core inflation remained relatively stable at low levels. In 2016, the inflation rate, as measured by the CPI, was negative (-0.2%) for the third year running. The average annual rate, however, masks an upward path from the spring onwards, almost entirely attributable to the energy component, which has continued in 2017 to date. The annual rate reached

23 In 2015, the rate of change in wages did not increase as the year elapsed either, but then inflation remained roughly stable over the course of the year.

24 Wage drift is defined as the residual between the growth in compensation per employee and the sum of the wage increase in collective agreements plus the increase in labour costs associated with the rise in Social Security contributions.

25 See J.M. Montero and A. Urtasun (2014), "Price-Cost Mark-Ups in the Spanish Economy: A Microeconomic Perspective", *Working Paper*, 1407, Banco de España.

SPAIN: CONSUMER PRICES AND DIFFERENTIAL WITH THE EURO AREA CHART 1.11



SOURCES: European Commission, INE and Banco de España.

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3% in January and February, the highest level since October 2012, before falling back again (see Chart 1.11). This pick-up stems from the increase in oil prices, a base effect resulting from falls in the price of this commodity a year earlier and higher electricity prices.[26] Meanwhile, the non-energy indicator was stable, having remained at around 1% since the summer of 2015, reflecting the absence until now of indirect and second-round effects arising from higher oil prices and also the fact that, despite its recent increase, the response of inflation to economic activity remains limited, especially during upturns.[27]

The inflation differential with respect to the euro area has turned positive in recent months, as a result of the rise in the energy component. Until it changed sign in the opening months of 2017, the core inflation differential with respect to the euro area had been negative throughout the upswing, although its size decreased considerably from the end of 2015 (see Chart 1.11). In April 2017, this differential stood at zero.

3 Continuation of the recovery: risks and vulnerabilities

In a more complex international setting, the Spanish economy needs to achieve sustained growth along with deficit and public debt reduction and external balance correction. The upswing in the Spanish economy has already lasted almost four years.

26 See Box 3, Quarterly Report on the Spanish Economy, *Economic Bulletin*, December, 2016, Banco de España.

27 See L.J. Álvarez, A. Gómez Loscos and A. Urtasun, (2015), "Asymmetries in the relationship between inflation and activity", *Economic Bulletin*, November, Banco de España.

The latest projections of the Banco de España envisage continuing growth in the coming years, albeit at a slower rate than in the 2015-16 period, as the effects of the temporary factors that have prevailed in recent years tail off. That said, this scenario is subject to various predominantly downside risk factors.[28] Notable, on the external side, was the greater uncertainty surrounding global economic policies and their possible impact on world trade, as well as the rise in interest rates, especially at longer maturities. Meanwhile, domestically, there are still a number of elements of fragility. In particular, the considerable level of public debt and of debt of certain segments of the household and business sectors entails a high degree of dependence on external saving, a source of vulnerability to possible further increases in yields on debt markets and, in general, to the cost of external financing. The solvency levels of Spanish credit institutions exceed minimum requirements but their profitability – affected, as in other parts of Europe, by low net interest income and the presence, albeit declining, of non-performing assets on their balance sheets – is moderate. Finally, the recent rise in oil prices involves certain challenges for the Spanish economy, given its dependence on this commodity, which means that higher oil prices lead to a deterioration in the external balance, as well as the aforementioned risks of re-emergence of the positive cost and price growth differential with respect to competitors.

This section analyses the possible effects of the earlier-mentioned risk factors to the Spanish economy in the short and medium term, while the following section analyses the structural challenges, linked to the economy's longer-term growth potential.

3.1 GLOBAL ECONOMIC POLICIES

The degree of uncertainty surrounding the international setting increased considerably last year and is a risk factor for the euro area economy. As mentioned above, the difficulties surrounding the correction of imbalances in China, the new economic policy stance in the United States and the uncertainty over the exit of the United Kingdom from the European Union are factors that may have an adverse impact on the world economy in the short and medium term and, in some cases, especially on the euro area and the Spanish economy. In particular, implementation of the budgetary measures outlined by the new US administration may, given the high degree of utilisation of resources in that economy, lead to a contractionary monetary policy response, the pass-through of which to global financial conditions is a risk factor for activity in the euro area, which is lagging behind in the business cycle. Likewise, the United Kingdom's exit from the EU may have a large impact on the euro area, given the close financial and trade ties existing between these two areas.

Trade openness has been positive for the welfare of the general public and certain protectionist measures may revive the weakness displayed by world trade last year. In certain parts of the world an intensification in authorities' protectionist bias was observed during 2016. The possible adoption of additional protectionist measures may further weaken world trade, which would be very negative for economic activity and potential global welfare improvements, given the evidence of a positive relationship between the degree of trade openness and the level of competition between firms, leading to lower prices, improved product quality and greater innovation dissemination. These effects are positive from the viewpoint of consumer welfare, although it is not easy to quantify them and they do not immediately materialise. By contrast, the costs of openness for some segments of the population may be perceptible even in the short term. Specifically, the offshoring of some production chain processes following trade liberalisation has been

28 See "Macroeconomic projections for the Spanish economy (2017-2019)", Box 1 of the Quarterly Report on the Spanish Economy, *Economic Bulletin,* 1/2017, Banco de España.

identified on occasions as a factor triggering decline in certain industries. Emphasis on these initial adverse effects has led the new US administration to abandon the Trans-Pacific Partnership (TPP) and developed countries generally to curb the adoption of trade liberalisation policies and, in particular, further tariff reductions, a phenomenon that has been observed since the crisis. In fact, in recent years, increasing recourse to non-tariff measures appears to have given rise to a significant increase in protectionism (see Box 1.1).[29]

Trade protectionism poses a notable risk to the recovery in the Spanish economy, which is increasingly dependent on the external sector. Exports of goods and services have been a driver of economic growth in Spain throughout the recovery (see Chapter 3 of this Report). During this period, the economy's degree of international openness has increased considerably, so that sales to the rest of the world now represent 33% of GDP, as compared with 25% in 2008. The consequences of this process are predominantly positive, but it also increases vulnerability to the vagaries of global trade flows. In particular, the diversification of Spanish trade in recent years towards markets outside the EU and, especially, emerging markets, has been very significant. For this reason, strains in the trade relations between the United States and Mexico or China would also have repercussions for Spain. In addition, the Spanish economy is highly exposed to the British economy, in various areas, including sectors linked to both tourism and non-tourism services and the financial sector, which makes it especially sensitive to the shape of the future relationship between the United Kingdom and the EU.[30]

3.2 DEBT AND FINANCIAL COSTS

The high level of indebtedness of the Spanish economy makes it vulnerable to possible further interest rate increases. In a high-debt environment agents' balance sheets are especially sensitive to possible international capital market tightening. The higher the degree of indebtedness the larger the fall in the value of net worth that will result from a decline in the value of real or financial assets,[31] and also the greater the sensitivity of incomes to increases in the cost of servicing the debt burden.

The public debt-to-GDP ratio remains very high. Despite the stabilisation of the public debt ratio, it remains at around 100% of GDP, more than 60 pp above its pre-crisis level, and the accumulated fiscal imbalance continues to be significant in comparison with other euro area countries (see Chart 1.12). The intensity and duration of the necessary public sector deleveraging depends on economic growth, the inflation outlook and interest rates, as well as the pattern of public-debt reduction. The simulations of the right-hand panel in Chart 1.12, based on different assumptions for these variables, show that the range of possible paths for the public debt-to-GDP ratio is indeed very broad. However, on reasonable assumptions regarding the possible future developments in the above-mentioned variables, the probability that the level of debt of Spanish general government will be below the reference level of 60% of GDP during the next decade is low.

Following various years of intense adjustment, households and firms have made significant progress with their deleveraging. The debt-to-GDP ratios of Spanish

29 Examples of non-tariff instruments include the introduction of import permits, quality requirements, inspections or price controls. For further details see Evenett S. and J. Fritz (2015) The Tide Turns? Trade, Protectionism and Slowing Global Growth, CEPR Press.

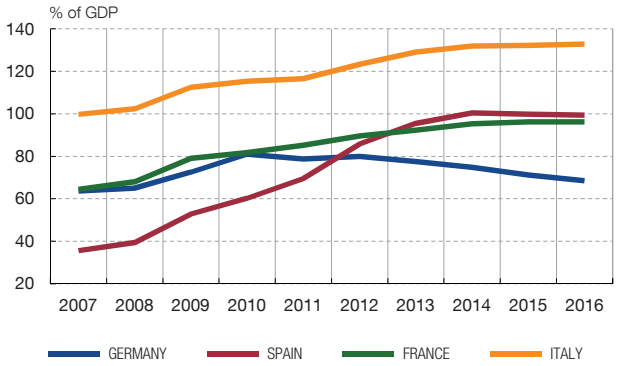
30 See Box 5, "Quarterly Report on the Spanish Economy", *Economic Bulletin*, September 2016, Banco de España.

31 Thus, a 10% decline in the value of assets entails an equivalent fall in net wealth if the investor has no debts. However if the indebtedness were 50% of the value of the assets, the fall in net wealth would be 20%, and if the leverage were as much as 80%, it would amount to 50%.

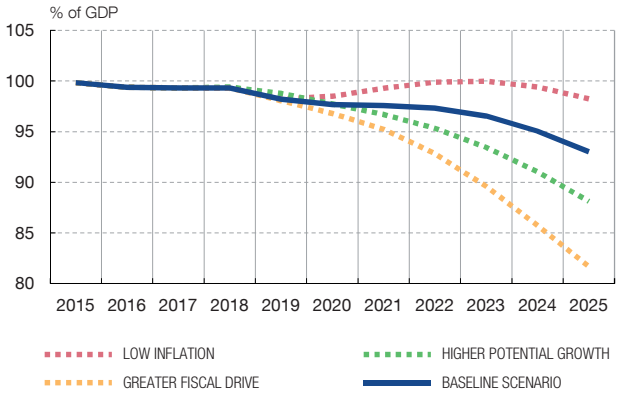
GENERAL GOVERNMENT DEBT

CHART 1.12

1 EXCESSIVE DEFICIT PROTOCOL (EDP) DEBT



2 PUBLIC DEBT SCENARIOS: SPAIN (a)



SOURCES: ECB and Banco de España.

a Alternative simulations of paths of the public debt-to-GDP ratio up to 2025, under different assumptions, are presented. These assumptions refer to a baseline scenario and three alternative scenarios. The baseline scenario is constructed using end-2016 data and the latest macroeconomic forecasts of the Banco de España ("Quarterly report on the Spanish economy" of March 2017) for 2017. The specific assumptions for these two years are, respectively, real GDP growth of 3.2% and 2.8%, inflation (GDP deflator) of 0.3% and 1%, a government deficit of 4.5% and 3.3% of GDP, with a change in the primary structural balance of –1 % and –0.1% of GDP, an implicit debt interest rate of 2.8 % and 2.7%, and a negative deficit-debt adjustment for the net sale of assets of 1.6% of GDP for 2016 and a positive adjustment of 0.3% of GDP in 2017. From 2018 the tool described in Othman Bouabdallah et al. (2017), *Debt sustainability analysis for euro area sovereigns: a methodological framework,* ECB Occasional Paper, No 185/April is used, to extend the macroeconomic scenario and the associated public debt path to 2025. In particular, it is assumed that inflation converges with the medium-term target of the ECB in five years, that GDP growth converges with its potential growth path (estimated by the European Commission) and that there is a fiscal adjustment in line with the European requirements assumed by Spain. Three assumptions of the baseline scenario are changed to obtain the alternative scenarios: 1) Low-inflation scenario: the GDP deflator converges with its target of 2% over a ten-year horizon instead of the five-year one in the baseline scenario; 2) Higher-growth scenario: potential GDP growth 0.5 pp higher from 2018, as a consequence of the implementation of structural reforms; and 3) greater fiscal drive scenario: an additional annual improvement in the structural balance of 0.5% of GDP from 2018, until the medium-term target of a zero structural balance is reached.

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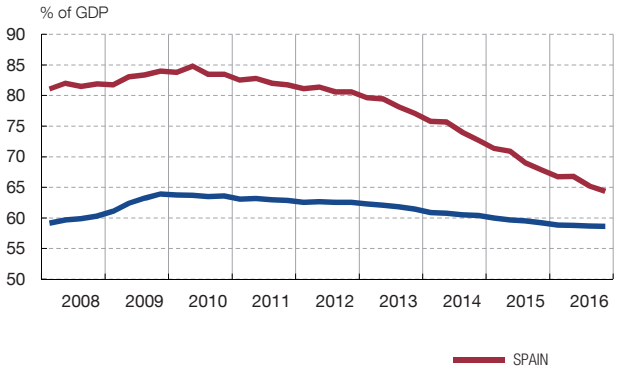
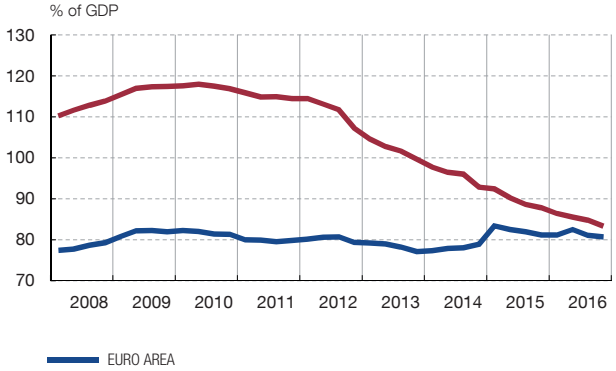
SPAIN: FINANCIAL POSITION OF HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS

CHART 1.13

1 DEBT RATIO. HOUSEHOLDS



2 DEBT RATIO. NON-FINANCIAL CORPORATIONS



SOURCE: Banco de España.

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households and firms have declined significantly from their mid-2010 peaks (see Chart 1.13). By December 2016, these ratios had fallen by 20 pp and 34 pp, respectively, and the gap vis-à-vis the related euro area values had narrowed notably, to 6 pp and 3 pp, respectively. Estimating sustainable levels of debt is especially complicated in the case of sectors such as households and non-financial firms, which are made up of highly heterogeneous agents. Various methodologies have recently been proposed to estimate these equilibrium levels, but as each has its limitations their results should be interpreted

with caution.[32] On the basis of various alternative methodologies, the European Commission estimated, in its 2016 report on Spain, that in mid-2015 the deleveraging needs in the household sector were still between 10 and 20 pp of GDP, while those of firms were below 10 pp of GDP. However, given that the debt ratios of these sectors fell by around 7 pp between mid-2015 and December 2016, the need for further deleveraging would currently be less than implied by the above figures.

Despite the notable reduction in aggregate levels of indebtedness, the level of debt of many firms and households remains high relative to income. The aggregate deleveraging achieved by the private sector since 2010, of almost 55 pp, can be considered extraordinary. However, the remaining debt is distributed unevenly across households and firms, so that in some segments of these two sectors the level of debt remains high relative to the income sustaining it. According to the latest wave of the survey of household finances, based on end-2014 data, 14% of indebted households (7% of all households) devoted more than 40% of their gross income to debt payments that year.[33] For households in the bracket corresponding to the lowest 20% of income, 48% (13% of all households) exceeded this threshold. Given the improvement since 2014 in the aggregate indicators of the economic and financial situation of households, with significant increases in income and employment, reductions in indebtedness and a decline in interest rates, the proportion of households exceeding these debt burden thresholds is now likely to be lower. In the case of non-financial firms, those groups in which there is still a high proportion of companies facing interest payments that represent a significant proportion of their income are the smallest ones and, especially, those linked to construction and real-estate services.[34]

The negative net international investment position continues to be a significant vulnerability, although it has recently been reduced as a result of various factors. Despite the notable reduction in private debt in recent years, in 2016 the negative net international investment position (IIP) of the Spanish economy amounted to 85.7% of GDP, which was high compared to other euro area countries (see Chart 1.7). As regards the sector breakdown, the negative net IIP of general government has increased significantly since the start of the crisis, while those of financial institutions, firms and households have declined.[35] That said, as the analysis in Chapter 3 of this report shows, the cumulative structural adjustment of the current account balance in recent years, along with the globalisation of financial markets and the restructuring of liabilities, have helped to moderate the external vulnerability of the economy.[36] In addition, valuation effects, which have in recent years reflected an improvement in the financial position of resident issuers, have limited correction of the book value of the negative external position. Specifically, the

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32 One methodology attempts to estimate the equilibrium level of debt on the basis of its economic determinants, such as disposable income, interest rates and wealth. Another approximation focuses on the analysis of credit cycles and past deleveraging episodes (see Borhorst and Ruiz-Arranz, 2013, "Indebtedness and deleveraging in the euro area", Euro Area Policies, Selected Issues, IMF). Finally, indicators have been built of debt (net of revaluations, write-offs and debt reclassifications) relative to assets, and of its convergence towards its equilibrium level (see Cuerpo et al, 2015 "Private sector deleveraging in Europe", Economic Modelling, pp. 372-383). For further details of the alternative approaches, see 'Private sector deleveraging: outlook and implications for the forecast', in European Economic Forecast - Autumn 2014, European Economy 2014", European Commission.

33 See "Survey of Household Finances (EFF) 2014: methods, results and changes since 2011" (2017), *Economic Bulletin*, 1/2017, Banco de España.

34 See A. Menéndez and M. Mulino (2017) "Changes in the degree of financial pressure borne by Spanish non-financial corporations: 2007-2016", *Economic Bulletin*, 1/2017, Banco de España.

35 See N. Jiménez and C. Martín (2017) "The Balance of Payments and International Investment Position of Spain in 2016", *Economic Bulletin,* 2/2017, Banco de España, forthcoming.

36 See the IIP simulations presented in Chapter 3 of this Report.

improvement since 2012 in the solvency and prospective earnings of resident issuers has given rise to a revaluation of their liabilities, although, in terms of the IIP, this translates into negative valuation effects that increase the negative external balance. Without the impact of these valuation effects and other adjustments over the last four years, the net IIP would have fallen by 16 pp, as compared with the 4 pp decline actually recorded.

The moderation of financial costs in recent years has had a very significant effect on the income of households, firms and general government. Given the high levels of public and private-sector debt in the Spanish economy, changes in financing costs have a direct impact on private and public-sector income and, consequently, on the financial position of the nation. Thus, the decline in interest rates in recent years (with a varying impact over time on the different segments of the yield curve) has contributed very significantly to boosting the income of the various sectors of the Spanish economy. This effect has in fact been stronger in Spain than in other euro area countries, given the higher level of debt in Spain and the greater prevalence of variable interest rate financing in the case of the private sector. Specifically, the average annual impact of the decline in interest rates between 2008 and 2016 on the net debt burden is estimated to have been 1.7% of average household gross disposable income in this period, 7.9% of the gross operating surplus of non-financial corporations and 0.4% of GDP in the case of general government.

A possible scenario of rising interest rates would have a contractionary effect on the income of the various sectors. Given the historically low level at which interest rates currently stand, they can be expected to stop contributing to the expansion of income in the various sectors and, in the medium term, in a scenario of continuing recovery and progressive normalisation of monetary conditions, to have a contractionary effect. In the case of households and firms, given the predominance of short-term and variable interest rate loans (especially in the case of most of the outstanding amount of mortgages), the pass-through of changes in interest rates to the income of agents may be relatively rapid. That said, the most important part of the cost of financing of these agents is basically linked to changes at the short end of the yield curve, which is more closely related to the monetary policy stance. As mentioned above, the latter remains extraordinarily loose in the case of the euro area.[37] In addition, the decline in the debt of these two sectors in recent years makes the sensitivity of their net interest payments to changes in the cost of financing significantly lower now than at the start of the crisis. That said, as mentioned above, given the heterogeneity of the financial position of different agents, both in the case of households and firms, certain groups of borrowers would still be highly vulnerable to any tightening of financing conditions.

The sensitivity of the debt burden of general government to interest rate changes has increased as a consequence of the rise in public debt in recent years. Moreover, for general government, the changes at the long end of the curve are more important, which is where the increases in interest rates since autumn 2016 have been concentrated. However, given the long average maturity of public debt, the pass-through of interest rate changes to the cost of debt occurs gradually. Box 1.3 contains various quantitative simulations illustrating how changes in the various segments of the yield curve may impact the cost of the debt of non-financial corporations, households and general government.

37 The possible increase in interest rates may be associated with a strengthening of activity, in which case, on aggregate, the increase in interest payments could be partially offset by an improvement in other sources of income.

In the setting described, resumption of fiscal consolidation is a priority. Reducing the high level of public debt is necessary to check future financial costs, to reduce the economy's vulnerability to a possible tightening of financing conditions and to restore some scope for discretionary fiscal policy in the event of possible shocks. This requires a resumption of fiscal consolidation, the scope for which, as measured by the structural deficit, is still large (3.5% of GDP, according to the latest European Commission estimates). Fiscal consolidation should be part of a medium-term programme of measures that would enable targets to be achieved, based on prudent assumptions regarding the outlook for macroeconomic developments and public revenues, and making use of all the preventive and coercive mechanisms of the Budgetary Stability Law. At the same time, in a scenario of further fiscal consolidation, the composition of the adjustment is particularly important, to enable public finances to make a greater contribution to the economy's growth potential. In this respect, further progress needs to be made in rationalising public expenditure and improving its efficiency, and a review and definition of the basket of taxes that would enable the revenues required to finance the desired level of public spending to be raised steadily and efficiently needs to be considered.

Reducing the negative international investment position will also require preservation and extension of the economy's competitiveness gains. Reducing the economy's negative international investment position to levels of lower vulnerability will require current-account surpluses for a prolonged period. This means that, as well as structural consolidation of public finances, the economy's competitiveness gains must be preserved and extended, which will require various structural reforms, an aspect that is addressed in Section 4 of this chapter.

3.3 THE LOW PROFITABILITY OF CREDIT INSTITUTIONS

Recovery in the profitability of credit institutions is a challenge in the current environment of low net interest income, limited activity and persistent unproductive assets. In 2016, the consolidated earnings of Spanish credit institutions fell by 21% with respect to the previous year, their ROE standing at a low level of 4.3%, down 1.3 pp from the previous year (see Chart 1.14).[38] [39] The fall in profitability since the start of the crisis is primarily due to the lower volume of activity and the increase in NPLs, but more recently the key factor has been the reduction in unit margins, compounded by an increase in legal costs. In fact, since 2007 the net interest income of the business in Spain of national deposit institutions has decreased by 24%, primarily due to the lower volume of activity and the increase in NPLs during the period. However, since early 2015, the greater difficulty achieving further reductions in the cost of liabilities, given that the latter had become close to zero, and the limited recovery in credit meant that the decline in unit margins per volume of assets has become the main factor behind subsequent reductions in the net interest income of Spanish institutions. The current context of very low interbank interest rates, a still limited volume of new business and the presence of significant pockets of unproductive assets thus poses a challenge for the recovery of profitability of Spanish institutions, which requires further increases in efficiency, potentially through some additional consolidation within the sector and the exploration of alternative sources of revenue.

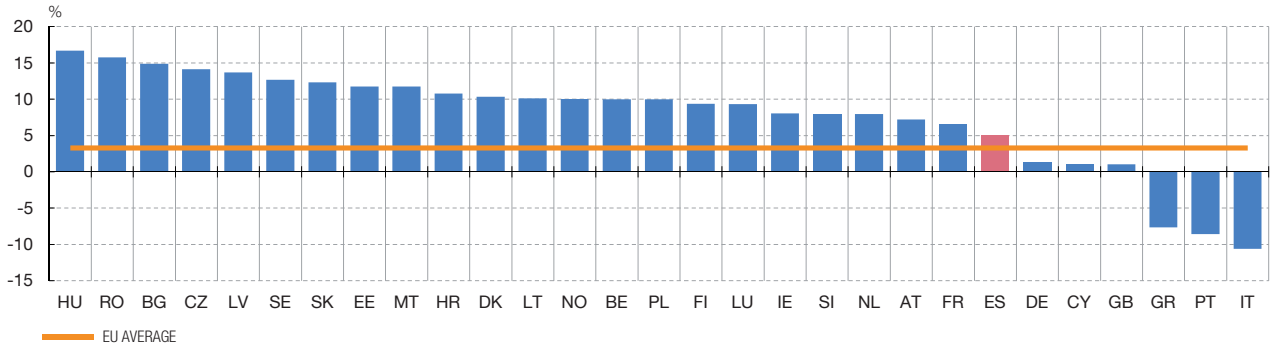
Despite the solvency position of credit institutions, their low profitability is a vulnerability for the economy. The common equity tier 1 (CET1) ratio for the Spanish

38 For further details, see the *Financial Stability Report*, May 2017, Banco de España.

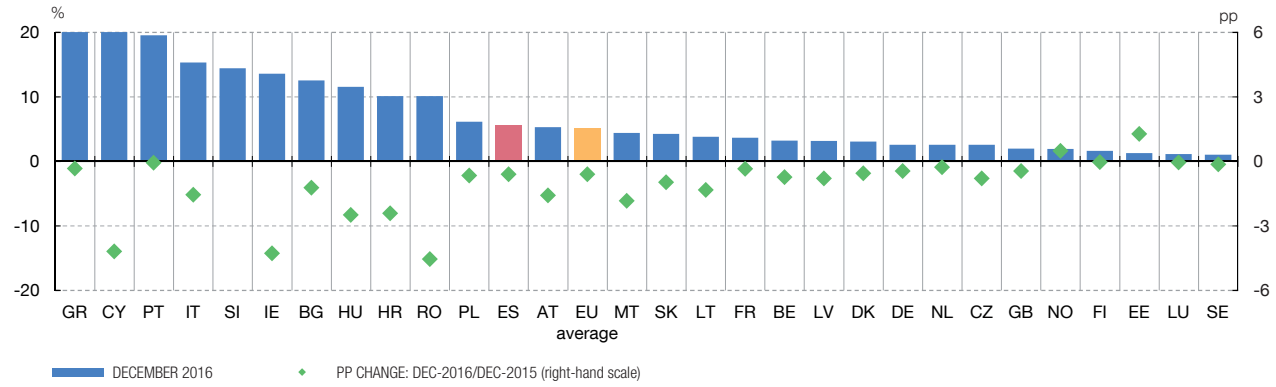
39 The ROE figure of 4.3% cited in the text is calculated for Spanish institutions as a whole. The implicit figure in the chart, somewhat over 5%, differs because it refers solely to a sample of institutions used by the EBA for the international comparison.

FINANCIAL INSTITUTIONS: PROFITABILITY AND NPL RATIO CHART 1.14

1 RETURN ON EQUITY: A EUROPEAN COMPARISON
December 2016



2 NPL RATIO: A EUROPEAN COMPARISON (a)
December 2016



SOURCE: EBA.

a The NPL ratios in Greece and Cyprus are 45.9% and 44.8%, respectively.

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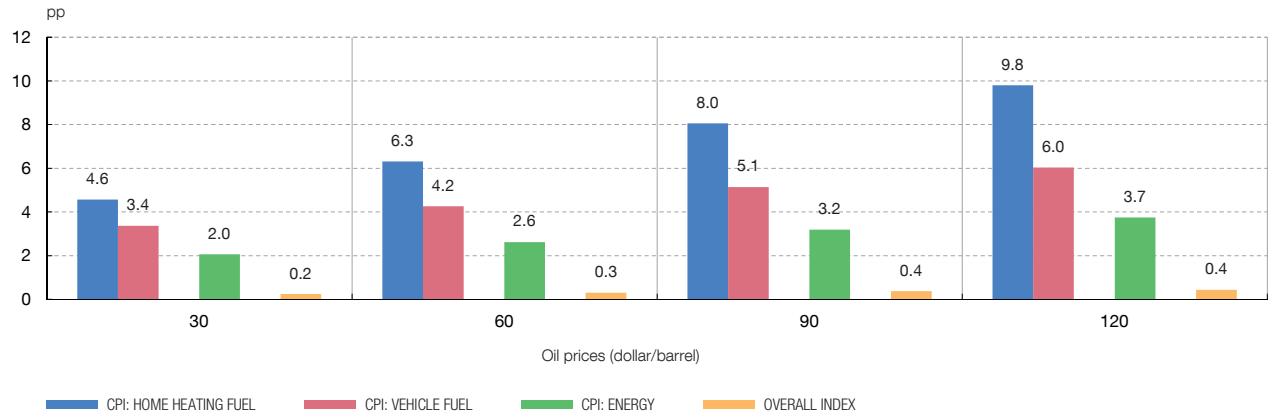
banking system as a whole reached 12.8% in December 2016, exceeding the minimum regulatory requirements. Also, the stress tests carried out by the European Banking Authority in July last year and by the Banco de España in November showed that the system would continue on aggregate to enjoy capital levels above the minimum requirements even in an adverse macroeconomic scenario. Even so, in the international environment described, materialisation of some of the risks mentioned, such as a world economic context characterised by protectionist policies, or adjustment in the prices of certain financial assets or in risk premiums, could trigger episodes of tension in bank funding markets with potential contractionary effects on the supply of funds to the other productive sectors.

3.4 COMPETITIVENESS, ENERGY PRICES AND INFLATION

The recent rise in oil prices has had greater adverse effects on the Spanish economy than on the euro area as a whole. Since the start of the crisis, adjustment of relative cost and price adjustments have played a decisive role, first, in the correction of the external imbalance and, subsequently, in boosting national spending. The recent oil price rises have direct consequences for the energy bill and also for the competitiveness of the Spanish economy. Indeed, the economy's inflation differential, which was negative between September 2013 and November 2016, turned positive in December 2016, reaching around 1 pp in early 2017. In this respect, it should be pointed out that a rise in oil prices has a comparatively greater contractionary impact on real household and business income in Spain than in the euro area and therefore, on spending too.

ESTIMATED IMPACT ON THE CPI AND ITS COMPONENTS OF A 10% INCREASE IN OIL PRICES CHART 1.15



SOURCES: INE and Banco de España.

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The short and medium-term challenge is to avoid excessive pass-through of the increase in energy costs to final prices and wages, which would reduce the competitiveness of the Spanish economy. In principle, and in the absence of further significant increases in energy costs, the effects of their recent rise on inflation will be temporary, insofar as they are absorbed by business and household income (see Chart 1.15).[40] The challenge, in this respect, is to ensure that the consequences of the rise in consumer prices are actually temporary and have the lowest possible contractionary impact on activity and employment. This requires avoiding the indirect effects of a pass-through of the increase in input costs to final prices, as well as the materialisation of second-round effects of the temporary rise in the energy component on wage demands.

In the longer term, the dependence on imported energy inputs still needs to be reduced. To reduce the impact of international oil market shocks, the dependence on imported energy inputs needs to be reduced. In this respect, the degree of diversification of primary energy has been increasing in recent years, with a decline in the weight of fossil fuels, while efficiency gains have been made in energy consumption, even relative to other euro area countries.[41]

4 Challenges for the sustained growth of the Spanish economy

The high structural component of the unemployment rate, the ageing population and low total factor productivity are the main constraints on the long-term growth of the Spanish economy. On the estimations available, the Spanish economy's potential growth has fallen significantly since the crisis began. Specifically, compared with a rate of nearly 3% in the period 2001-2007, it is estimated that potential growth will stand at around 1.5% in the next decade[42], a slowdown essentially due to the lower rate of increase expected in the population.[43]

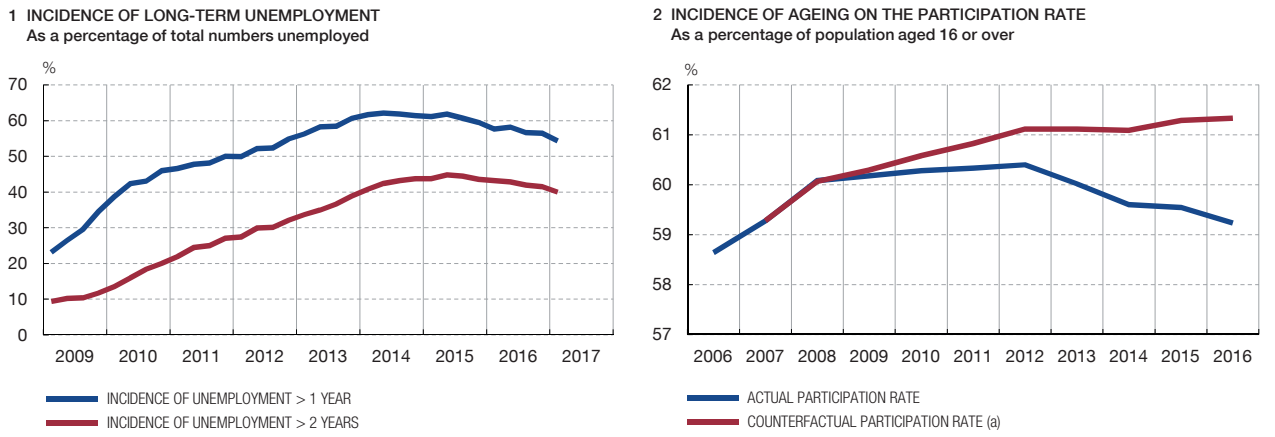
40 See the *Analytical Article* by Álvarez, L.J., I. Sánchez and A. Urtasun (2017), "The effect of oil price fluctuations on Spanish inflation", Banco de España.

41 See Box 3.2 in Chapter 3 of this Report.

42 See Box 1.3, *Annual Report, 2015,* Banco de España.

43 Specifically, these projections of the economy's potential growth rest on the INE's latest population assumptions (October 2016), according to which, in future net migratory flows will seemingly be very moderate, moving on a modestly growing trend from around 3,000 individuals in 2016 to 48,000 in 2025. This flow is in contrast with the average of 580,000 net immigrants during the period 2002-2008.

SPAIN: STRUCTURAL UNEMPLOYMENT AND PARTICIPATION RATE CHART 1.16



SOURCES: INE and Banco de España.

a Aggregation of participation rates by age group and gender with constant population weights from the 2007 Spanish Labour Force Survey.

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Reducing the high unemployment rate (especially the long-term unemployment rate) should remain an economic policy priority. Despite the sharp fall from the highs of early 2013, the unemployment rate stood at end-2016 at 18.6%, considerably higher than that observed in other euro area countries, except for Greece. High unemployment is concentrated in certain segments of the population, especially among low-skilled individuals and young people aged 19 to 29, who have unemployment rates of 34.4% and 31.6%, respectively.[44] Furthermore, as shown by Chart 1.16, the incidence of long-term unemployment, defined as unemployment which lasts for more than two years, is still very high (40% of the total numbers unemployed).[45] These data show the difficulties of large groups of the unemployed in taking advantage of the economic upturn and the risk that they might be permanently displaced from the labour market (see Box 1.2 of the *Annual Report, 2015*). Getting these individuals back to work should be a key economic policy priority, given the direct relationship between the duration of unemployment, on one hand, and the increase in inequality and the loss of skills, on the other.

The gradual ageing of the population reduces the economy's growth capacity. Noteworthy among the factors which explain the considerable reduction in the estimated growth potential of the Spanish economy is the impact of demographic ageing. The stabilisation of the Spanish population in 2016, following several years of slight declines, masks different patterns by age group. In particular, last year there was a fresh increase in the population aged over 65 (of 1.6%), in contrast with a widespread decrease in the other age groups. As a result of these mixed developments, which have persisted since 2008, in the period 2008-2016, the dependency ratio (a measure showing the ratio of the population aged over 65 to the working-age population) has risen by approximately 5 pp to 29%. The INE's projections indicate likewise very steep increases in this variable over the next few decades, reaching 36% in 2026 and exceeding 60% around 2045, even though it already includes net positive migratory flows.

44 In both cases, job destruction flows are higher than those of other groups. Additionally, among the more unskilled unemployed, job creation flows are considerably lower than those of the average labour force.

45 The incidence of long-term unemployment (over one year) is 56.4%.

Population ageing is already having a negative effect on the performance of the participation rate. Population ageing has begun to affect labour market participation in such a way that it is estimated that the participation rate of the population aged over 16 would have been nearly 2 pp higher in 2016 than in 2007, if the demographic structure of that year had been maintained (see Chart 1.16).[46] Looking ahead, the progressive ageing of the population will foreseeably prompt a further decline of 2 pp in the participation rate between 2016 and 2020.

Ageing may also have negative effects on productivity. In addition to this direct impact on economic growth relating to the lower availability of labour, there is empirical evidence that identifies the negative indirect effects of population ageing on the rate of increase of potential output. These effects are channelled, inter alia, through the impact of the demographic shift on decisions regarding savings and investment in human capital, and on the economy's pace of innovation.[47]

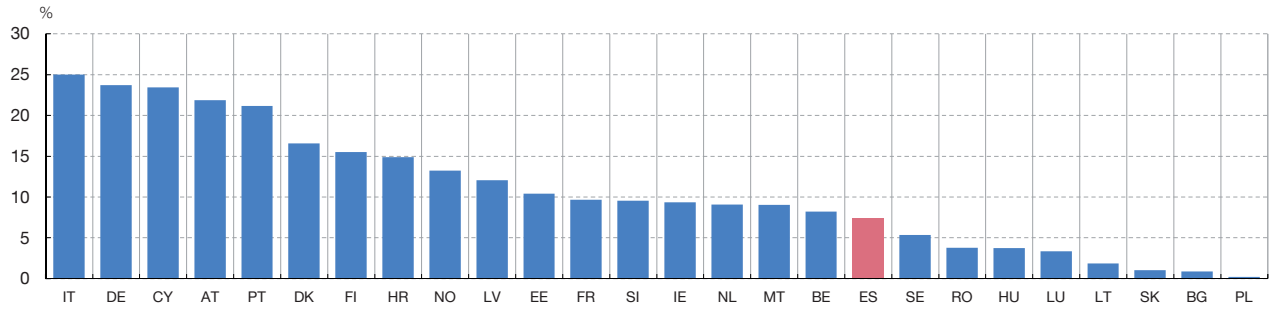
The public pension system must define a strategy to deal with the challenge posed by demographic changes. Demographic changes put upward pressure on certain public expenditure items such as health, care for the elderly and, in particular, pensions. In this latter case, on estimations of the European Commission's latest report on ageing, the increase expected in the dependency ratio, defined as the ratio of the number of pensioners to the working age population (15 to 64 years), is estimated to increase from around 30% to slightly more than 60% between 2015 and 2050, which, without offsetting measures, would exert significant upward pressure on expenditure on this type of social benefit. The pension system reforms introduced in recent years have met this challenge by, among other measures, increasing the retirement age, defining a sustainability factor to tie the initial pension to longer life expectancy and approving a new mechanism to make the annual revaluation of pensions conditional upon the balancing of the system's revenue and expenditure, with ceilings and floors. On the available estimations, these reforms will foreseeably counter to a large extent the effect of the expected rise in the dependency ratio on pension expenditure in favourable macroeconomic settings and, therefore, contribute to strengthening the long-term sustainability of the system. Without additional increases in revenue, the adjustment mechanism envisaged in the system as it currently stands, would operate mainly by decreasing the pension replacement rate, that is, by reducing the average pension with respect to the average salary. On estimations of the European Commission's latest report on ageing, this decline would reach 20 pp between 2013 and 2060, even under a very favourable macroeconomic scenario. Looking forward, delimiting the replacement rates which our pension system aims to ensure is essential so that revenue is adjusted for sustainability to be guaranteed.[48] In any event, it is desirable that any reform strategy chosen should make the system more transparent, strengthen contributiveness, that is the ratio of contributions to benefits and, especially, maintain an automatic adjustment mechanism which ensures financial equilibrium.

The effects of population changes on economic growth can be partly countered by reducing structural unemployment through on-the-job training and life-long learning policies. A key tool for managing to raise potential growth is avoiding that the unemployed (particularly the longer-term unemployed) lose their skills. Training policies play a crucial

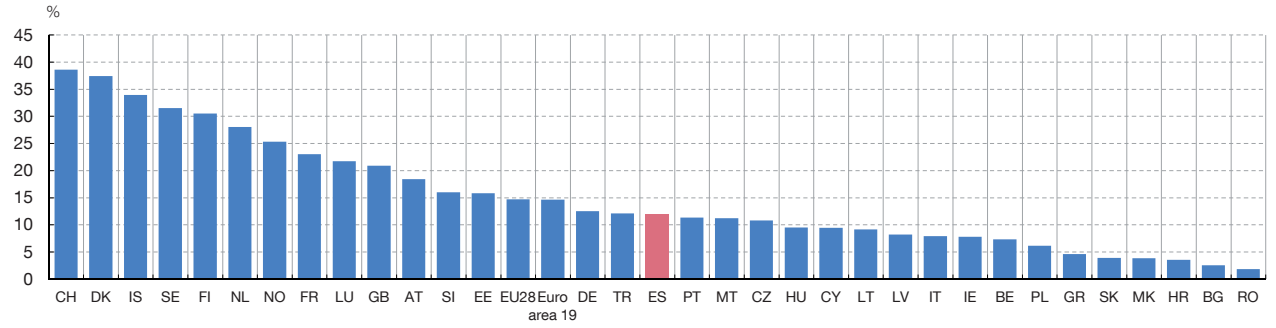
46 See Box 6 "Quarterly report on the Spanish economy", *Economic Bulletin*, September 2016, Banco de España.
47 See Y. Aksoy, H. S. Basso, R. P. Smith and T. Grasl (2015) *"Demographic structure and macroeconomic trends"*, Working Paper 1528, Banco de España.
48 See P. Hernández de Cos, J. F. Jimeno and R. Ramos (2017), *The Spanish public pension system: current situation, challenges and reform alternatives,* Occasional Paper 1701, Banco de España.

EMPLOYEE PARTICIPATION IN TRAINING, BY COUNTRY CHART 1.17

1 PROPORTION OF TOTAL EMPLOYMENT POLICY PARTICIPANTS RECEIVING TRAINING (2015)



2 PERCENTAGE OF PERSONS IN EMPLOYMENT PARTICIPATING IN TRAINING (2015)



SOURCES: European Commission and Banco de España.

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role in improving the employability of the unemployed. In particular, this tool is used infrequently in Spanish employment plans – especially for the jobless with intermediate and high educational levels (see Chart 1.17) – and the high mismatch between their skills and those required by companies suggest there is wide scope for action in this area.[49]

There is also room to consolidate guidance policies for the unemployed and to focus hiring rebate arrangements principally on less employable groups. The evidence available shows that performing tasks which require the use of cognitive skills in the workplace contributes more effectively to increasing workers' future employability.[50] This observation is particularly relevant for low-skilled individuals, making it advisable to refine the new design of guidance and complementary policies for this type of unemployed individuals, in line with the action taken in recent years to increase collaboration with the private sector. Key to this strategy, is the assessment of the existing set of programmes as a prior step to redirecting resources to where they obtain the best results. Accordingly, recent evidence indicates that rebate arrangements for hiring the unemployed are not very effective in terms of net job creation,[51] except for certain specific groups, such as the lower-skilled unemployed who, consequently, should be the focus of such arrangements.

49 See S. Puente and A. Casado (2016), "Skills mismatch between labour supply and demand in Spain", *Economic Bulletin,* September, Banco de España.

50 See J. F. Jimeno, A. Lacuesta, M. Martínez-Matute and E. Villanueva (2016), *"Education, labour market experience and cognitive skills: evidence from PIAAC"*, Working Paper 1635, Banco de España.

51 F. Paulino, M. Izquierdo and S. Puente (2017), "Subsidising mature age employment or throwing coins into a wishing well: a quasi-experimental analysis", Working Paper, Banco de España, forthcoming.

Reducing unemployment is also crucial for reversing the increase in income inequality which arose during the crisis. The analyses available reveal the crucial role played by the increase in unemployment in income inequality in Spain during the crisis.[52] Although the data available are still limited, existing evidence seems to indicate that job creation in recent years has favoured a reduction of the inequality in income distribution. For instance, according to the Survey of Income and Living Conditions, in 2015 the Gini index, calculated on the basis of household income, decreased slightly. A continued sustained recovery of employment will be conducive to reducing inequality.

Increasing potential growth requires ongoing productivity improvements. Projections of potential growth rates are also moderate in per capita terms, as a result of the protracted low buoyancy of productivity observed over the last two decades. This low productivity growth is linked both to the allocation of resources to less productive firms and the lower rate of increase in the average productivity of firms compared to European countries.

The reallocation of resources to more productive firms requires measures in highly disparate areas.[53] In particular, the indicators available underline that Spanish firms face greater costs and administrative requirements in order to start trading[54] than in other European countries, making it necessary to revise those components of state and regional legislation which hinder market access. Accordingly, it is necessary to complete the implementation of the Law to Ensure Market Unity. Furthermore, the regulatory components which limit the growth of the most efficient firms[55] need to be revised.

Certain aspects of sectoral regulations, as well as excessive contract duality may also negatively affect productivity growth. As for the lower average productivity growth of firms compared with other developed countries, there is ample room for improvement in certain aspects which can be applied cross-sectionally to favour competition in the product market. In particular, in the area of sectoral regulations, the available indicators show greater regulatory restrictions in certain sectors, such as transport and professional services.[56] Furthermore, the price of electricity finally paid by firms and consumers remains high in relation to that observed in other European countries. Similarly, there is also considerable room for improvement in the legal system, particularly in terms of reducing the average length of proceedings to bring it into line with that of other countries.[57] Finally, the excessive duality in the labour market arising from the current hiring system causes high volatility in hiring which has negative effects on the productivity of temporary employees, who face careers with inordinately frequent job turnover, and permanent employees, who show overly low labour mobility.[58]

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52 See L. Hospido and S. Bonhomme (2017), "The Cycle of Earnings Inequality: Evidence from Spanish Social Security Data", *Economic Journal,* and F. J. Goerlich (2016), *Distribución de la renta, crisis económica y políticas redistributivas,* Fundación BBVA.

53 See *Chapter 4, Annual Report, 2015,* Banco de España, and *Chapter 3, Annual Report, 2014,* Banco de España.

54 See the Eurobarometer on European businesses and public administration of the European Commission (2016) https://data.europa.eu/euodp/es/data/dataset/S2089_417_ENG.

55 M. Almunia and D. López-Rodríguez (2017), "Under the Radar: the Effects of Monitoring Firms on Tax Compliance", *American Economic Journal, Economic Policy*, forthcoming, and M. Almunia, J. F. Jimeno and D. López-Rodríguez (2017), *Firm Size-Dependent Regulations in Spain,* Working Paper, Banco de España, forthcoming.

56 See M. Correa-López and R. Doménech (2017), *Service regulations, input prices and export volumes: evidence from a panel of manufacturing firms*, Working Paper 1707, Banco de España.

57 See J. Mora-Sanguinetti (2016), «Evidencia reciente sobre los efectos económicos del funcionamiento de la justicia en España», *Boletín Económico,* January, Banco de España.

58 See, for example, A. Cabrales, J. J. Dolado and R. Mora, *Dual Labour Markets and (Lack of) On-the-Job Training: PIAAC Evidence from Spain and Other EU Countries, European University Institute, mimeo*, and A. Ichino and Riphalm (2005), "The effect of employment protection on worker effort: a comparison of absenteeism during and after probation", *Journal of the European Economic Association,* 3 (12), pp. 120-143.

EDUCATIONAL INDICATORS IN 2016 TABLE 1.2

As %

	Spain	EU
Population aged 15-64		
Primary education	42.8	26.6
Secondary education	24.7	46.3
Tertiary education	32.6	27.1
Population aged 25-34		
Primary education	34.7	16.5
Secondary education	24.4	45.4
Tertiary education	40.9	38.1
Early school leavers rate (a)	19.4	10.8

SOURCE: Eurostat.

a The early school leavers rate is defined as the percentage of persons aged 18-24 with educational attainment below upper secondary level who did not participate in any educational or training activity in the last month.

In order to increase productivity the education system needs to be improved and the accumulation of technological capital needs to be encouraged. The academic qualifications achieved by a population are a key determining factor of economic productivity. Accordingly, the percentage of the population aged between 25 and 34 with an educational attainment level lower than completed secondary education is 35% in Spain compared with the EU average of 17% (see Table 1.2). Despite the recent improvement in its OECD PISA indicator, which approximates the quality of an education system based on the results of 15-year-old students in standard tests, Spain is lagging behind the countries leading this classification and, in particular, behind most of its trading partners in central and northern Europe, which limits the development of activities linked to new technologies. The reform of the education system should be aimed at reducing this gap. Looking to the future, it is crucial for the education system to deal with trends such as globalisation, technological progress and task automation which make it necessary to reconsider the system of learning and the content of the educational curriculum.[59] Spain has lower levels of technological capital than other developed countries in the public sector and, particularly, in the private sector which is connected, in the latter case, to firms with a low capacity to absorb new technologies. These shortcomings would seemingly be related to aspects such as the training of workers and employers, the excessive weight of small firms, the limited development of alternative financial channels – such as venture capital – and the fragmentation of the public research system and its relative disconnection from business.

Total factor productivity growth is crucial for achieving lasting improvements in competitiveness. The comparatively more favourable results of Spanish exports than those of other euro area countries (see the bottom right-hand panel of Chart 1.3) highlight how gains in competitiveness based on price and cost containment have allowed the growth rate of sales abroad to outpace that of their markets. However, where such containment is the source of gains in competitiveness, the process of increasing foreign market shares is very slow and other advantages of forging a presence abroad, such as the possible impact on productivity growth or of the geographical diversification of exports, become apparent over longer periods.[60] Domestic demand will foreseeably increase over

59 See B. Anghel, S. de la Rica and A. Lacuesta (2013), *Employment polarisation in Spain over the course of the 1997-2012 cycle*, Working Paper 1321, Banco de España.

60 Chapter 3 of this report shows how the magnitude of the impact of gains in competitiveness on exports is, while relevant, relatively subdued.

the next few years, entailing further rises in imports (despite the substitution effects mentioned in Section 2.3.1) which will tend to exert negative pressure on the external surplus. These limits to correcting the external imbalance through gains in competitiveness based on price and wage moderation emphasise the need to identify and overcome the structural obstacles constraining long-term productivity growth, and the need to apply policies to tackle these shortcomings.

The materialisation of a positive outlook for the Spanish economy hinges on the ability of the EU and the euro area to achieve balanced growth. Aside from the domestic and global factors mentioned above, the Spanish economy is highly influenced by developments in the EU and in the euro area which constitute its closest external environment. Consequently, it is necessary to reduce excessive macroeconomic differences between the economies of Member States, improve the medium-term outlook overall and thus avoid a low growth scenario from becoming established. Accordingly, there continues to be a large number of countries with excessive imbalances according to the reviews of the European Commission. Furthermore, the highly persistent large current account surpluses in certain countries limits the internal adjustment required in the euro area and underlines the structural rigidities which restrict a more dynamic performance of domestic demand in these economies.

Monetary policy stimulus should be complemented by synergic action comprising the appropriate combination of national and supranational policies. As the European Commission and the ECB have reiterated, under the current circumstances the extraordinary stimulus provided by monetary policy should be complemented by the synergic action comprising, on one hand, structural reforms to increase productivity and improve the adjustment capacity of euro area countries; and, on the other, fiscal policies to reconcile the fostering of economic growth and compliance with budget sustainability requirements.[61]

Brexit and the surge in populism in certain countries have brought the EU to a crossroads which should serve to strengthen its foundations. At a collective level, developments throughout 2016 have shown that the process of European integration has come to a crossroads, just as sixty years have elapsed since the signing of the founding treaty of the EU. The British government's notification at the end of March of the United Kingdom's intention to leave the EU marked the beginning of a complex negotiating process which will foreseeably end in 2019. As part of this process, the specific arrangements whereby the United Kingdom will leave the EU and the future framework of relations between the two parties will have to be agreed. It is also important that the EU's current reflections on its future lead to the strengthening of the very foundations of the Union – free movement of people, goods, services and capital – and to a deepening of the single market by removing the numerous regulatory barriers which at present particularly hinder the provision of services in other EU Member States and worker mobility.

More resolute progress is required to strengthen the euro area's institutional framework by improving structural convergence and moving towards common fiscal stabilisation mechanisms In the case of the euro area, the lessons from the crisis should not be forgotten as regards the need to strengthen the governance framework and the mechanisms for channelling the imbalances that have built up and, in this way, to lay the

61 See Ó. Arce, S. Hurtado and C. Thomas (2016), "Synergies between monetary policy and national policies in a monetary union", *Economic Bulletin,* October, Banco de España.

foundations for renewed growth. The progress made to date – improvements in macroeconomic supervision, the implementation of the banking union and the creation of conditional financial assistance mechanisms – could be insufficient to avoid future shocks from questioning even the irreversibility of the single currency. Consequently, governments should promote the road map outlined in the *Five Presidents' Report* published in June 2015. In the short term, the priority is to achieve true financial integration of euro area economies by completing the banking union through the creation of a common deposit guarantee scheme and sufficient fiscal support for the single resolution mechanism, and through a more determined impetus for the European Commission's initiative for a capital markets union. Additionally, completion of the arrangements for implementing the recommendations made in the context of the European semester would seemingly allow better structural convergence, lead to a more symmetrical adjustment of the imbalances built up and contribute to increasing potential growth and investment. Similarly, it is important not to lose sight of the medium-term objectives for achieving an authentic Economic Union which covers, beyond the financial area, the area of policies overall. Accordingly, Chapter 4 of this report discusses possible ways for advancing towards a fiscal policy which includes common stabilisation mechanisms and reduces the incidence and economic and social effects of future crises.

Following several decades of ever-deepening globalisation, which has given rise to major increases in trade, migratory and financial flows, in recent years there appears to have been a slowdown in, and even some reversal of, this process. Indeed, in the last five years world trade has lost momentum. This might be attributable to various factors, such as the weakness of the more demand-intensive components in imports (such as investment), the greater weight of the emerging economies – which demand fewer import-intensive products – in global trade and the fall-off in global value chains. Moreover, recently the trade policies of certain economies, most singularly the United States, appear to be geared towards greater protectionism (see Chart 1). The analyses available and the experience of past episodes in which policies contrary to international trade were stepped up show that trade protectionism is harmful to well-being and global growth. In the short term, these policies distort the allocation of resources, prompting losses in efficiency; and in the medium and long term, they bear adversely on total factor productivity, as a result of the lesser absorption of knowledge associated with the reduction in trade openness, the downturn in innovation and in the adoption of new technologies, and lower managerial quality. These effects are accentuated in the recipient economies of foreign direct investment (FDI), since trade tends to move in conjunction with this variable.[1]

To illustrate the possible impact on the global economy of a hypothetical increase in trade protectionism, two alternative scenarios have been simulated with the NiGEM macroeconomic model.[2] The first scenario envisages an increase in US tariffs on Mexican and Chinese imports, as suggested in the current president's

1 See S. Edwards (1998), "Openness, Productivity and Growth: What Do We Really Know?", *The Economic Journal*, 108, pp. 383-398, on the relationship between trade openness and total factor productivity. On the relationship between trade and FDI, see Joshua Aizenman and Ilan Noy (2006), "FDI and trade - two-way linkages?", *The quarterly review of economics and finance*, vol. 46, no. 3, July, pp. 317-337.

2 See "Situation of and outlook for the world economy at the start of 2017", *Economic Bulletin*, 1/2017, Banco de España, where the results of these simulation exercises are presented in greater detail.

EFFECTS OF THE REVERSAL OF GLOBALISATION

Chart 1
PERCENTAGE OF PRODUCTS AFFECTED BY NON-TARIFF TRADE BARRIERS (a)

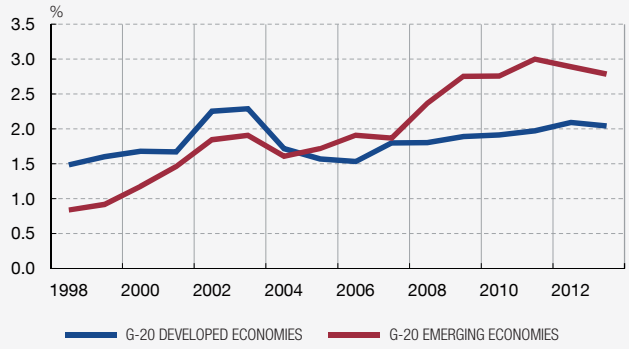


Chart 2
AVERAGE TARIFFS

Chart 3
CHANGE IN THE IMMIGRANT POPULATION AS A FRACTION OF THE TOTAL POPULATION

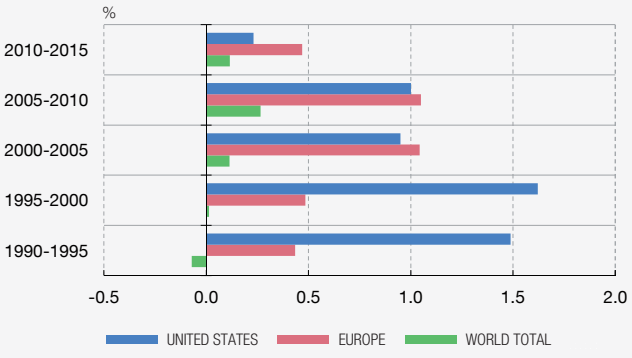
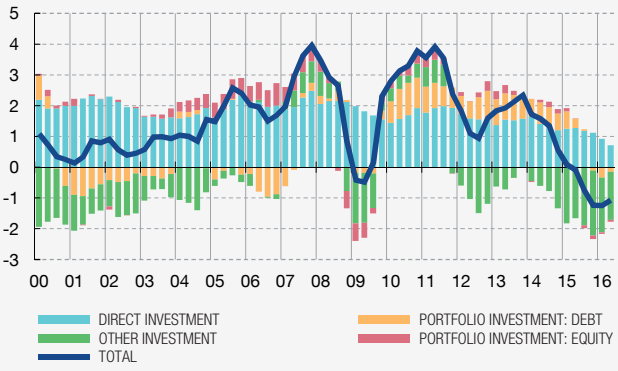


Chart 4
NET CAPITAL FLOWS: EMERGING ECONOMIES
(% OF EMERGING ECONOMIES' GDP) (b)



SOURCES: IMF, Datastream, Dealogic, United Nations, World Bank and Banco de España.

a See Bown, Chad P. (2014) Temporary Trade Barriers Database, The World Bank. Available at http://econ.worldbank.org/ttbd/
b Four-quarter moving sum.

electoral programme, assuming that these two countries react similarly and on an equivalent scale.[3] The second scenario simulates an across-the-board rise in tariffs globally to levels similar to those prevailing in the late 1990s, prior to the opening up of trade in numerous emerging economies, especially China (see Chart 2).[4] In the model, the increase in protectionism in the United States gives rise to dearer goods and services imports, which diminishes consumer purchasing power, bearing negatively on the external demand of the countries concerned. Potential retaliation may also affect US exports. However, a change in the direction of trade of the countries involved towards third markets, and the capacity of other economies to fill the gap left by US exports, insofar as trade retaliation affects them adversely, lessen these negative impacts. The first scenario considered would give rise to a cumulative reduction in US and Chinese GDP of around 2 pp in 2020. The impact on Mexico is greater, rising to 6 pp in that same year. The exercise, however, does not take into account the change in the trade structure of these three countries as a result of the increase in tariffs and the possible re-targeting of their trade flows towards other areas mentioned earlier. In the second scenario, in which protectionist measures are stepped up forcefully, the effect on global activity would be very marked, resulting in a reduction in global growth of around 0.8-1.2 pp in the 2017-2020 period.

As regards immigration, cross-country flows of people have been growing in a sustained fashion over the past 25 years (see Chart 3). Generally, the sources and destinations of economic migration are determined first, by the prevailing economic and demographic trends; and further, by migration policies in the advanced economies. In future, such policies might in some cases take on a more restrictive bent. In the short term, the greater restrictions on migration may favour the national population segment with a level of educational attainment similar to that of the average immigrant. However, in the longer term, measures of this type entail adverse effects, since they reduce the growth of the labour force and, therefore, of potential output. In addition, the obstacles to immigration reduce a major source of funding for public pensions and health systems for the countries most affected by population ageing. For the countries of origin, emigration entails various different effects, since on one hand it involves a reduction in the population of working age and, in the case of highly skilled migrants, in the economy's human capital; but, on the other hand, it provides a significant source of external financing, by means of the remittances sent to countries of origin.

In terms of capital flows, there has been a notable reduction in recent years as a result of both supply- and demand-side factors, including certain regulatory changes. Moreover, it seems that, among the determinants, global factors or factors external to the recipient country (push factors) increasingly prevail over the idiosyncratic factors of the country itself (pull factors).[5] That would explain the reduction in flows targeted on the emerging economies (see Chart 4), a phenomenon that might restrict headway in their ongoing convergence. In this respect, there is a degree of consensus about the fact that the effects of capital flows for recipient economies depend both on their composition and on the characteristics of these countries. It has been demonstrated that foreign direct investment, which is usually more stable, entails clear benefits in terms of growth and of technology transfer for the emerging countries. Accordingly, with a view to the future it is likely that a reduction in these types of flows, associated, for example, with obstacles to developed economies' companies operating outside their countries of origin, will have a significant impact on the growth of the developing economies.

3 The scenarios are instrumented introducing a rise in import prices and a decline in export volumes, whose scale is calibrated on the basis of bilateral trade exposures and the price elasticities of the demand for imports. The range of elasticities of trade to tariffs corresponds to that estimated in Rubini Loris (2011), *Innovation and the elasticity of trade volumes to tariff reductions,* EFIGE Working Paper 31.

4 That entails a rise in the effective (weighted) average tariff to 5%. In 2012 (the latest available figure) it was 2.9%, according to the World Bank.

5 See, for example, Á. Estrada, L. Molina, P. Sánchez and F. Viani (2017), "Towards efficient capital flow management", *Economic Bulletin*, 1/2017, Banco de España.

As indicated in the main body of the text, Spanish GDP growth over the 2014-2016 period was 3.2 pp greater, in cumulative terms, than envisaged in spring 2014.[1] In the same period, the difference recorded in the euro area as a whole was comparatively much smaller, rising to only 0.3 pp. This box assesses the role played by various factors responsible for the differences between actual and projected growth both in Spain and in the euro area, and the relative scale of these surprises between both economic areas. The factors are, namely, the unforeseen fall in oil and other commodities prices, the more expansionary monetary policy stance, the more relaxed fiscal policy stance and the lower growth of world markets (see Table 1).[2] With the exception of the latter factor, these elements are estimated to have had a more-positive-than-foreseen impact on activity. Further, as the box shows, they all impacted euro area GDP less favourably than they did Spanish output.

With regard to oil prices, the average level in euro stood, for 2015 as a whole, at 32% below the level assumed for that year in spring 2014, although that difference narrowed to 14% in 2016. Given that the demand for energy goods is relatively inelastic, the decline in oil prices entailed a direct increase in household purchasing power, which was earmarked partly for saving and partly for the acquisition of goods and services other than those directly affected by the fall in the price of crude oil. In Spain, this increase in real income is greater than in the euro area, both because the weight of oil derivatives is higher in the household consumption basket and because flat-rate taxes account for a lower proportion of the unit price.[3] Thus, in the two years spanning 2015 and 2016, the energy component of the HICP contributed 0.9 pp to the negative cumulative inflation difference of 1.3 pp vis-à-vis the euro area in terms of the overall indicator.

Moreover, the decline in oil prices leads to a reduction in production costs in industries in which this commodity is an input, which translates into higher margins and into a potential reduction in the prices of final products, in proportions that depend, among other factors, on the degree of competition in the related markets. That said, while the weight of oil in the overall euro area economy's costs structure was, according to the input-output tables, 1.5% in 2013 (the latest year for which this information is available), this proportion amounted to 2.2 % in Spain.[4] Accordingly, oil price fluctuations do not only affect Spanish households' real income more, but they also pass through to production costs to a greater extent. Overall, according to the estimates made, the reduction in oil prices is expected to have contributed 0.6 pp to the growth of euro area GDP in the 2014-2016 period, compared with 1.1 pp in Spain (see Table 1 and Chart 1).[5]

As regards monetary policy, the measures adopted in the last three years, in terms of both conventional and non-conventional

1 The macroeconomic projections of June 2014 prepared by Eurosystem experts for the euro area are the point of comparison.

2 The results presented in this box have been obtained through simulations performed with the macroeconometric models used by the national central banks of the Eurosystem in preparing the aggregate projections for the euro area as a whole and for each of the member countries. In the case of the Spanish economy, this model is the MTBE (the Quarterly Macroeconometric Model of the Banco de España). It is thus possible that a portion of the differences between the results for both areas is due to methodological differences, the precise quantification of which is very complex.

3 See Box 4.2 of the Banco de España 2014 *Annual Report*.

4 Moreover, the use of oil per unit of GDP is higher in Spain than that observed in the euro area. Specifically, although energy consumption per unit of output is similar in both cases, the weight of oil-related products in final energy consumption (50% in the case of Spain) exceeds that in the euro area as a whole by 9 pp. Box 3.2 offers a more extensive view of the Spanish economy's energy dependency.

5 The estimated impacts of the latest decline in oil prices according to the models available should be interpreted with caution. In particular, the models reflect the observed effects on the historical average. In this respect, the positive effect on activity that would arise from the latest episode of lower oil prices might be overestimated, given that monetary policy was unable to react fully to the decline, since nominal interest rates had reached their lower bound. Conversely, nor are the models able to capture the effects of the non-conventional monetary policy.

Table 1
ESTIMATED CUMULATIVE CONTRIBUTIONS OF VARIOUS TEMPORARY FACTORS TO THE CHANGES IN SPANISH AND EURO AREA GDP IN 2014-2016

	2014		2015		2016		Average	
	Spain	Euro area	Spain	Euro area	Spain	Euro area	Spain	Euro area
Cumulative effect on the level of GDP (pp)								
Monetary policy	0.1	0.0	1.0	0.6	1.7	1.5	0.6	0.5
Fiscal policy	0.0	-0.1	0.3	0.2	0.8	0.2	0.3	0.1
Global markets	0.1	0.1	-0.3	-0.8	-1.5	-1.8	-0.5	-0.6
Oil and other commdities prices	0.0	0.0	0.3	0.3	1.1	0.6	0.4	0.2
Total effects	0.2	-0.1	1.2	0.2	2.2	0.6	0.7	0.2

SOURCES: Own estimates based on models used in the Eurosystem's projection exercises.

policies, have contributed to the nominal effective exchange rate depreciating in this period by around 14% and to borrowing costs for agents in the Spanish economy having fallen substantially, a decline which, to end-2016, stands for example at around 230 bp in the case of 10-year government debt and at approximately 70 bp in the case of bank lending to non-financial corporations. On the estimates available[6], these monetary policy measures are estimated to have boosted growth in Spain somewhat more (1.7 pp) than in the euro area as a whole (1.5 pp).[7]

In comparison with what was projected in spring 2014, fiscal policy, in turn, retained a more expansionary stance in the 2014-2016 period, with a greater-than-foreseen deterioration in the cyclically adjusted primary balance, both in the euro area and, especially, in Spain. Specifically, on current estimates, the cumulative deterioration in the cyclically adjusted primary balance in the euro area is estimated to have been 0.3 pp greater than was expected three years earlier, while the scale of this difference in Spain's case is expected to have been 1.8 pp. As a result, this fiscal policy stance is expected to have added 0.8 pp to GDP growth in Spain over these two years as a whole, compared with 0.2 pp in the case of the euro area.

These positive demand-side (monetary and fiscal) and supply-side (oil) impulses are estimated to have more than offset the counteracting effects of the more-unfavourable-than-expected performance of export markets during the period analysed, which is expected – on the estimates made – to have subtracted 1.5 pp from the increase in output in Spain and 1.8 pp in the euro area.[8]

In short, the group of factors considered, which could not be anticipated three years back, is expected to have exerted a positive impact on GDP growth on a greater scale in Spain (2.2 pp) than in the Euro area (0.6 pp). That said, the difference between the GDP growth surprise and the portion explained by errors in the assumptions about how the four foregoing factors would unfold is positive in Spain (1 pp) and negative in the euro area (- 0.3 pp), suggesting the presence of additional causes when explaining the growth differential between both areas during these years. In particular, the positive sign of this difference in Spain's case suggests the existence of idiosyncratic elements having provided an additional boost, encompassing the effects of the reforms implemented in recent years and the correction of imbalances observed since the start of the crisis (see Chapter 2 of the 2015 *Annual Report*).

6 See chapter 3 of the Banco de España 2015 *Annual Report* and P. Burriel and A. Galesi (2016), *Uncovering the heterogeneous effects of ECB unconventional monetary policies across euro area countries,* Working Papers No. 1631, Banco de España.

7 This modest difference could be explained by the success of these policies in reducing the degree of fragmentation of the area's financial markets, which began to become visible following the initial episodes of the European sovereign debt crisis, from 2010, and which affected the group of countries considered as most vulnerable (Spain among them) with particular intensity. In addition, in Spain the easing in conventional monetary policy has had a comparatively greater positive impact on indebted households' income net of interest payments, given the prevalence of variable-rate financing (see Box 1.3).

8 This result is due to the fact that, for the other countries, the composition of the markets is such that, in average terms, they posted a greater decline.

GDP IN SPAIN AND IN THE EURO AREA
Annual rates of change

Chart 1
SPAIN: OBSERVED GDP PATH, PATH PROJECTED IN JUNE 2014 AND CONTRIBUTION OF TEMPORARY FACTORS

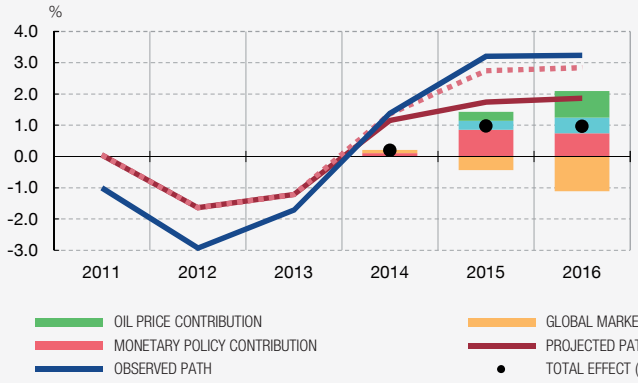
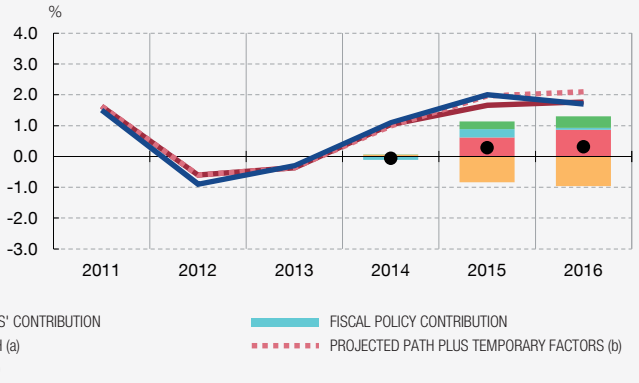
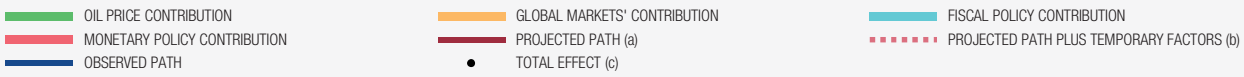


Chart 2
EURO AREA: OBSERVED GDP PATH, PATH PROJECTED IN JUNE 2014 AND CONTRIBUTION OF TEMPORARY FACTORS





SOURCES: Own estimates based on the models used in the Eurosystem's projection exercises.

a "Projected path" refers to that projected in the Eurosystem's June 2014 projections exercise (cut-off date: 21 May 2014).
b "Projected path plus temporary factors" refers to the sum of the path of footnote (a) plus the contribution of the various temporary factors.
c Joint contribution of the four factors. This is the difference between the "Projected path plus temporary factors" and the "Projected path".

This box analyses the impact that a rise in short and long-term interest rates would have on the incomes of Spanish households, firms and general government. In this connection, a three-year horizon (2017-2019) is considered, on the basis of the data observed to end-2016, and a baseline scenario and three other alternatives – including various hypothetical situations involving market interest rate rises – are assessed.

The baseline scenario, which coincides with the baseline projections of the last macroeconomic scenario published by the Banco de España[1], envisages a gradual and moderate rise in market interest rates, in keeping with the expectations implicit in market yield curves. The alternative scenarios, which include hypothetical rises in interest rates, envisage an increase – merely for illustrative purposes – of 100 bp above the levels of the baseline scenario. In the first such scenario, the rise is confined to yields up to a term of one year; in the second, to the medium and long-dated segments of the curve; and in the third, the entire yield curve is shifted upwards. To simplify the exercise, it is assumed in these three scenarios that the macrofinancial variables, such as GDP and the volume of debt or of assets, are not affected by the interest rate shock. Therefore, the effect on agents' incomes comes about exclusively through the impact on interest revenue received on assets and interest payments associated with debt.

To simulate the impact on the average return on deposits and the cost of households' and non-financial corporations' outstanding loans, equations estimated with historical information are used that measure the habitual pass-through from market rates to these yields. In the case of debt securities issued by general government and corporations, the maturity schedule for outstanding debts and future financing needs have been taken into account. It has also been assumed that, in the case of new issues, the proportion of short to long-term securities will be the same as that set by the Treasury for 2017, in the case of general government, and that observed in September 2016, in that of non-financial corporations.

Charts 1 to 3 present the results of the simulations for each of the three sectors analysed. For general government, where the bulk of liabilities have a long-term maturity, the impact of a rise in financing costs is gradual and, comparatively, more marked when this rise is concentrated in the long-dated segment of the curve. Hence, a 100 bp increase in short-term interest rates would translate into a net financial burden that were 0.13 pp higher in relation to GDP than in the baseline scenario at the end of the forecasting horizon, while an increase of the same amount in long-term interest rates would mean a burden 0.27 pp higher. In a scenario in which both rates increase, general government interest payments net of deposit returns would rise by 0.37 pp of GDP compared with the baseline scenario. In any event, the fact that the effect of the cuts observed to date in market yields has not fed through in full yet to average costs, owing to the long average duration of debt (around six years), means that the impact in the short and medium term of the potential interest rate rise would be offset by the progressive maturing of liabilities with a significantly higher cost. Specifically, in the foregoing example, in which the entire yield curve rises 100 bp, net interest payments relative to GDP would continue to stand throughout the projection horizon at levels that would not exceed those recorded in late 2016. Logically, increases in interest rates on a greater scale than that considered in the foregoing exercises or a higher level of public debt would lead the net general government interest burden to stand at levels higher than current ones.

As observed in Chart 2, the business sector's net interest burden is more sensitive to increases in short-term than in long-term interest rates, which reflects the prevalence of financing with a near-dated maturity and at a floating rate. This same characteristic means that the pass-through of market interest rate movements to the average costs of outstanding balances is swifter than in the case of general government, although less so than in the recent past, owing to the significant deleveraging of the sector in recent years. Specifically, a 100 bp rise in money market interest rates would result in an increase in the sector's gross financial burden of 1.98 pp relative to its gross operating surplus (GOP) at the end of the forecasting horizon, and of 1.56 pp in net interest paid (i.e. having discounted the increase in the return on deposits from the higher payments associated with liabilities). In the case of a rise in long-term interest rates, the net (and gross) financial burden would scarcely increase by 0.1 pp. Combining the two shocks gives a net impact of 1.66 pp of GOP at the end of three years (and of 2.08 pp in gross terms). Unlike with general government, in the scenarios that envisage interest rate rises, the net financial burden would ultimately stand above the level recorded at end-2016, which reflects the fact that the room for lowering the average costs of financing has practically been exhausted.

In the case of households, given the prevalence of variable-rate financing and the short duration of deposits, financial expenses and revenue are fundamentally linked to the changes in short-term interest rates and practically insensitive to changes in the long-dated segment of the yield curve. Specifically, the impact associated with a 100 bp increase in short-term interest rates on payments for interest on debt incurred would amount to 0.7 pp of gross disposable income (GDI) at the end of the horizon considered (see Chart 3). If the effect of this hypothetical increase in rates on the sector's net income is taken into consideration, the impact is more moderate, at scarcely 0.15 pp of GDI. That reflects the fact that, for the sector as a whole, the higher payments for interest on debt incurred (equivalent to 0.70 pp of GDI at the end of the horizon considered) are practically offset by the increase in the return on the sector's deposits (0.55 pp of GDI) (see Chart 4). In this respect, notable household deleveraging in recent years has contributed to the substantial moderation in the negative income effect associated with increases in interest rates.

1 See Box 1 of the "Quarterly report on the Spanish economy", *Economic Bulletin*, 1/2017, Banco de España.

Chart 1
GENERAL GOVERNMENT. NET FINANCIAL BURDEN (a)

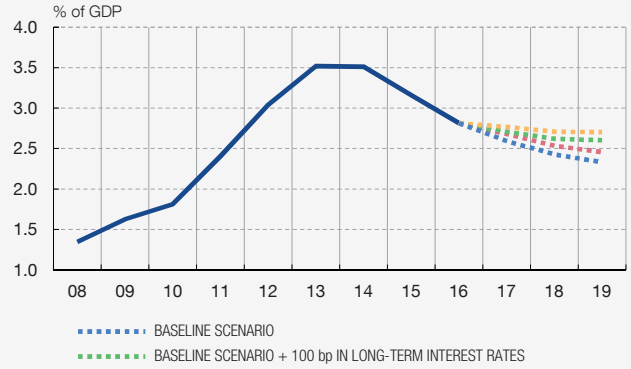


Chart 2
NON-FINANCIAL CORPORATIONS. NET FINANCIAL BURDEN (a)

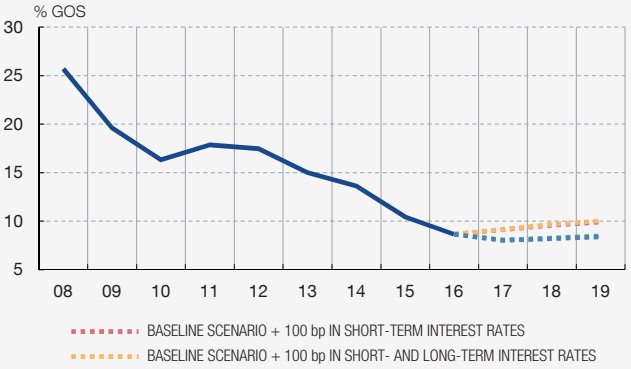


Chart 3
HOUSEHOLDS. NET FINANCIAL BURDEN (a)

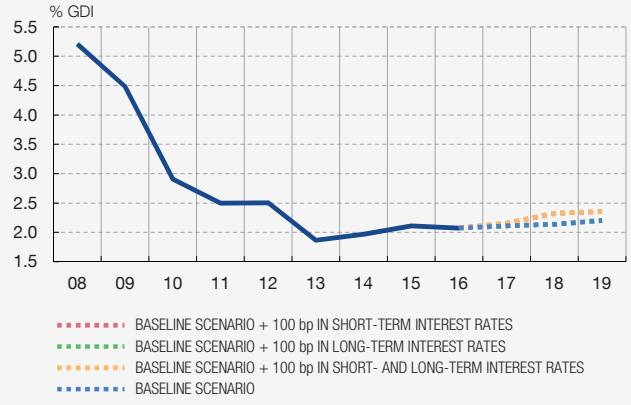


Chart 4
HOUSEHOLDS. FINANCIAL CHARGES AND REVENUE

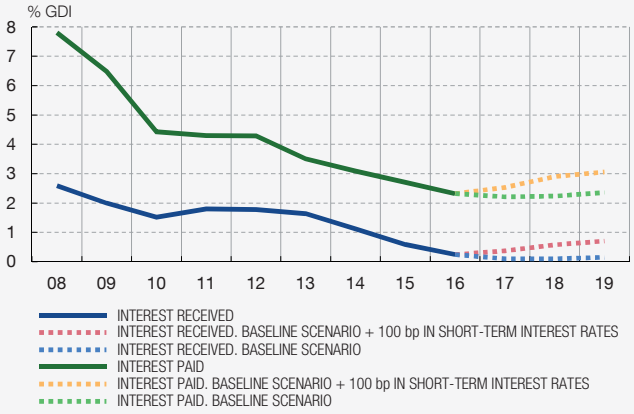


Chart 5
AVERAGE NET IMPACT OF THE 100 bp RISE IN INTEREST RATES ON HOUSEHOLD INCOME. BREAKDOWN BY AGE OF HOUSEHOLD HEAD (b)

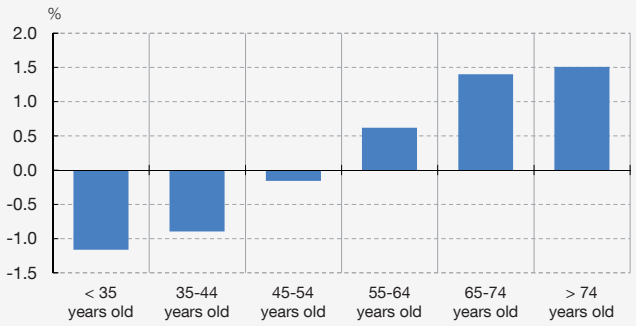
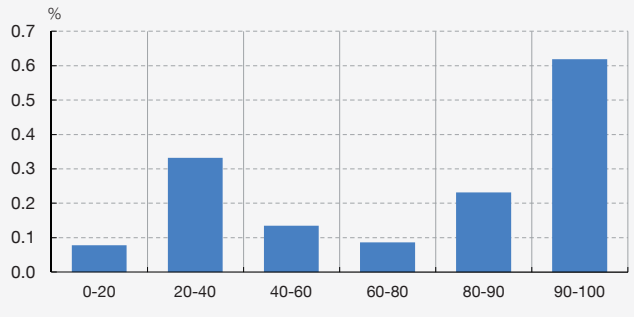


Chart 6
AVERAGE NET IMPACT OF THE 100 bp RISE IN INTEREST RATES ON HOUSEHOLD INCOME. BREAKDOWN BY INCOME PERCENTILE (b)



SOURCES: Spanish Survey of Household Finances (2014), INE and Banco de España.

a Interest paid on financing received less interest return on deposits.
b The net impact is defined as: (Increase in interest revenue on term deposits - Increase in debt service charges) / Household income. The increase in debt service charges is calculated for households with flexible rate debts. The increase in deposit interest revenue is calculated for all households holding one or more deposits, the impact being in the case of sight deposits +15 bp instead of +100 bp.

In any event, it should be borne in mind that these aggregate impacts within the household and corporate sectors may be masking a highly heterogeneous distribution that may have considerable consequences for the resulting influence on spending decisions. Thus, for example, in the case of households, the impact on consumption of the income effects linked to increases in interest rates will depend not only on what the size of these effects is for the sector as a whole (which, as seen, will foreseeably be limited), but also on the extent to which these effects change across population groups with a different marginal propensity to consume. The disaggregated information from the Spanish Survey of Household Finances reveals that an increase in interest rates (specifically short-term rates) would have a negative influence on the income of those households whose head is in the lower age brackets (see Chart 5), which are those in which, in principle, the marginal propensity to consume is higher. Countering this, the impacts would be positive in the older groups, where the prevalence of debt is less. An analysis in terms of the household's income level shows that the average impacts of increases in interest rates would be positive and for a low amount in all income brackets,[2] albeit slightly greater in the groups in which income is higher, where the households with a lesser marginal propensity to consume are to be found (see Chart 6).[3] These results therefore suggest that, in the case of households, the impact on consumption associated with the income effects of increases in interest rates would be somewhat more unfavourable than inferred from the analyses based on aggregate data.

2 Unlike in the aggregate analysis in Chart 3, the aggregate impact that may be inferred from the analysis of the Spanish Survey of Household Finances (EFF) / (Charts 4 to 6) is slightly positive (increase in incomes). That is due to the fact that in this latter case there has been an assessment exclusively of the effect on households of the latest wave of the Survey, assuming that debts are not rolled over. Conversely, in the aggregate exercise, it is implicitly assumed that a portion of the debts are rolled over under market conditions.

3 An analysis in terms of the levels of net wealth shows that the average impacts of interest rate rises on net household incomes would grow commensurately with net worth (negatively for households in the two lower quartiles of the distribution of this variable and positively and increasingly in terms thereof in the upper half of the distribution).