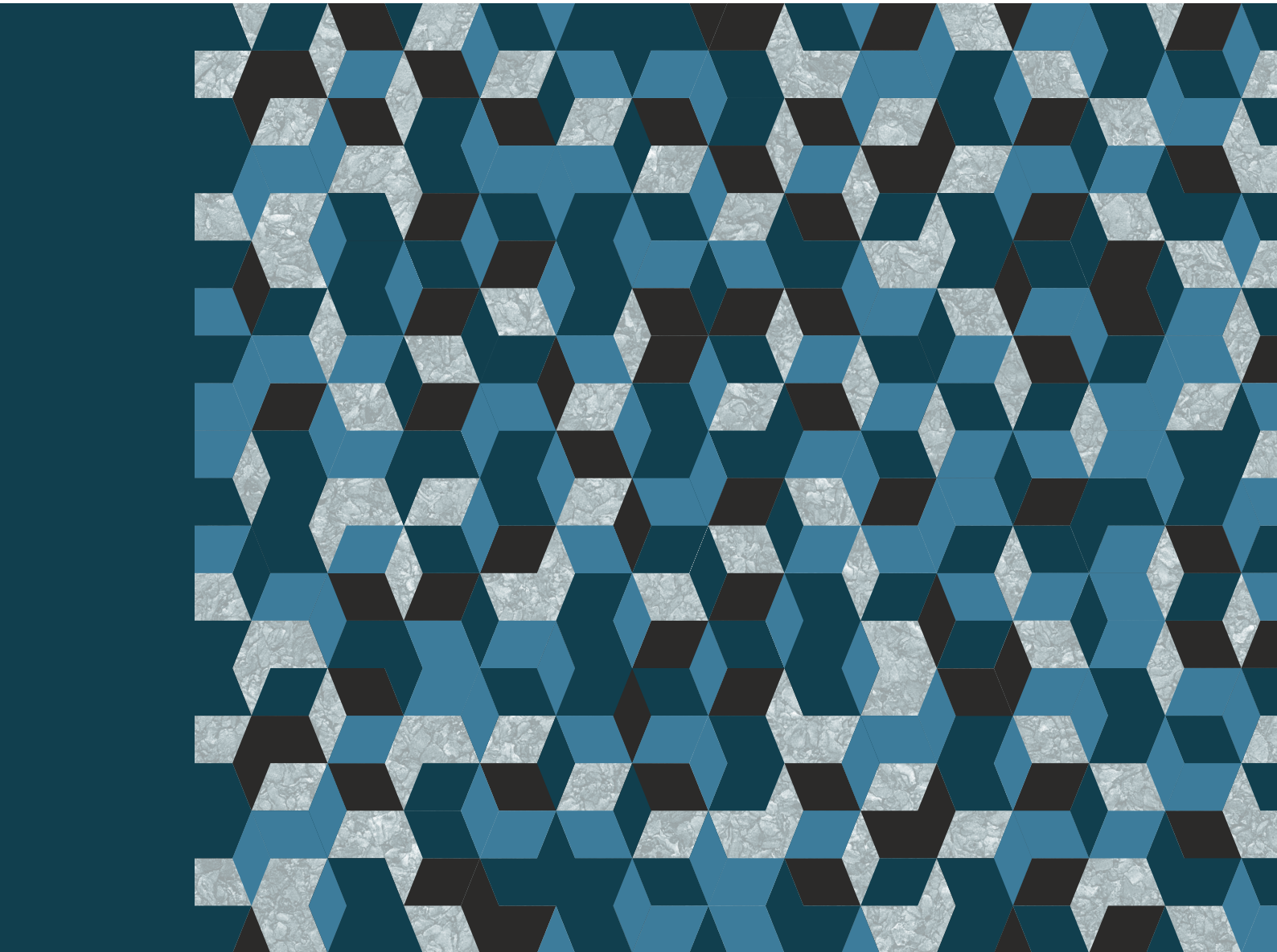
BANCO DE PORTUGAL
EUROSYSTEM

Economic Bulletin

October 2017



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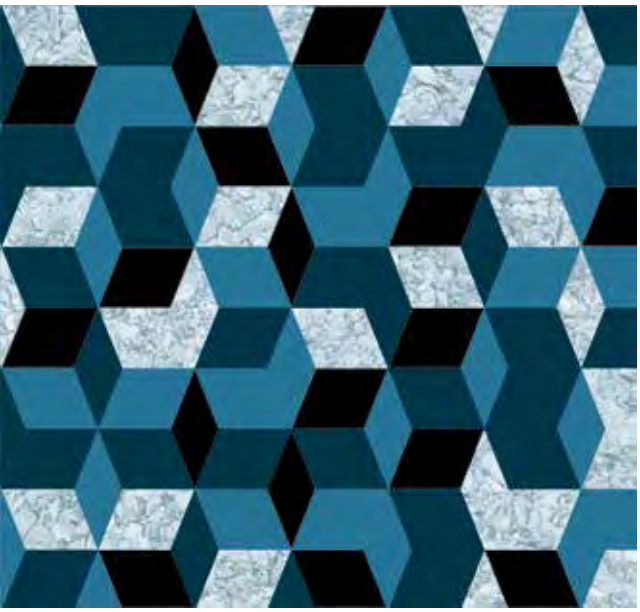


The portuguese economy in the first half of 2017

1. Overview

In the first half of 2017 the Portuguese economy grew at a clearly faster pace than the European average and that observed in the last decade. These dynamics were broadly based across sectors of activity. The Portuguese economic growth continued the recovery trend observed since 2013, which reflects the combination of progress at structural level – including the increased degree of economic openness – with cyclical effects – stemming from the recovery of investment and consumption to levels in line with more favourable expectations among economic agents over developments in permanent income and global demand. In 2017, economic growth in Portugal benefited from a particularly favourable international environment, with an acceleration in external demand and a general improvement in monetary and financial conditions, supported by the broad set of monetary policy measures adopted by the European Central Bank (ECB). The economic recovery under way continued to be characterised by low inflationary pressures, both internally and externally, reflecting in particular the behaviour in labour markets at a global level.

Economic growth in the first half was driven by buoyant investments and exports, while private consumption grew moderately, less than gross domestic product (GDP). This composition is likely to contribute favourably to potential output growth in the future. Regarding investment, there was particularly strong growth in the first half of the year in gross fixed capital formation (GFCF) in transport equipment and machinery and equipment, the latter reaching levels close to those observed before the international financial crisis. Furthermore, investment in construction accelerated, making an important contribution to GDP growth in the first half of the year. In turn, exports continued to grow robustly, as in the last few years, at a rate clearly above external demand for Portuguese goods and services. These market share gains, which were particularly sharp in the first half of 2017, were based on competitiveness gains unrelated to price developments, giving force to the idea that they are sustainable. Exports performed strongly across components and geographical destinations, with growth in exports of services especially strong. In particular, tourism exports in the first half of the year had the highest growth rate of the previous two decades. Although the Portuguese economy's openness to international trade is expected to continue to increase, the pace at which exports of services have been growing over the last few quarters does not appear to be sustainable over a prolonged period.

In the labour market, the labour force increased in the first half of 2017, in particular in the highest age brackets, which contrasts with the decline observed since 2010. Developments in the labour force will continue to be affected by the current decline and ageing of the total population, which continued into the first half of 2017. In regard to developments in employment, there was strong growth in the private sector, accompanied by an increase in the public sector. The available evidence suggests that net employment growth in the first half of 2017 resulted from the combination of lower job destruction (i.e. lower flows from employment to unemployment and inactivity) and stabilisation in job creation (i.e. of flows from unemployment and inactivity to employment). The net flows of job creation continued to be geared towards the sectors with higher productivity, notably those more exposed to international competition. This conclusion is also corroborated by the data on credit market flows and on developments in Gross Value Added (GVA) in the different sectors of activity. However, throughout the current recovery period, productivity per worker in the economy as a whole has fallen, which was probably caused by declines in intra-sectoral productivity, according to the evidence available. As a result, the unemployment rate has continued to fall sharply, reaching a level similar to the euro area average at the end of the first half of the year. Portuguese unemployment continues to feature a high proportion of very long durations. In the durations up to two

years, unemployment as a percentage of the labour force has now reached levels comparable to those of the years preceding the international financial crisis.

The Portuguese economy's performance in the first half of 2017 continued to be consistent with sustaining fundamental balances in terms of macroeconomic flows. However, the need continues to further correct the imbalances accumulated in the past which are still visible in high levels of indebtedness among the different sectors of activity, principally external indebtedness. This exposure is a latent vulnerability in the Portuguese economy and a binding constraint on a faster growth trend. In the first half of 2017, net financing capacity in relation to the rest of the world (measured in annual flows) was maintained, with the positive current and capital account balance based on a surplus in the goods and services account. Regarding the public finances, the fiscal deficit for the first half of the year was considerably below that of the same period in the year before, suggesting that the fiscal deficit objective set in the most recent Stability Programme is clearly achievable. The strict achievement of this result, given the very favourable macroeconomic environment, would not however provide the structural adjustment required by the European fiscal rules currently in force. In relation to public debt, analysis of the developments of central government deposits and the half-yearly profile of the State's main financing needs suggests that the reduction of public debt implicit in the Stability Programme for 2017 is feasible. In June 2017, the Council of the European Union decided to close the excessive deficit procedure that had been applied to Portugal since 2009. The Portuguese fiscal position is thus now analysed under the rules of the preventive arm of the Stability and Growth Pact.

The high growth observed in the first half of the year does not reflect a sustainable growth path for the Portuguese economy. Indeed, despite the notable deleveraging in the private sector and the progressive improvement in the allocation of resources employed in the Portuguese economy over the last few years, several structural factors persist that constrain the Portuguese economy and its growth potential, both internal and external in nature. Firstly, general government and non-financial corporations still have high levels of indebtedness when assessed against European standards. Secondly, the falling trend in the total population has structural characteristics that should persist in the future. Thirdly, the recovery of corporate investment after the crisis has still not brought about significant increases in the capital stock, with consequences for the incorporation of new technologies resulting from the renewal of the capital stock. Fourthly, the high level of long-term unemployment – despite the decline recorded in the last few years – tends to give rise to human capital depreciation, with an adverse impact on potential economic growth. Finally, in regard to the external environment, the last year has featured particularly buoyant world activity and trade, with fragilities and downward risks remaining in the medium term. In addition, the current degree of monetary accommodation is not expected to continue indefinitely.

Given this, the current expansionary phase of the Portuguese economy is a unique opportunity to reinforce its resilience to internal and external shocks, and to address the challenge of an increase in productivity in the medium to long term. It is essential to reinforce efficiency in financial intermediation, promote further deleveraging of the private sector, and create additional incentives towards innovation, factor mobility and investment in human and physical capital. It is also vital to maintain an institutional framework that is predictable and conducive to macroeconomic stability. Key to this is the national authorities' fulfilment of commitments in regard to fiscal rules and the multilateral monitoring framework at European level.

2. International environment

World economic activity and trade accelerated in the first half of 2017

In the first half of 2017, global activity accelerated from the previous year, continuing nevertheless to grow at a moderate pace, compared with the period prior to the economic and financial crisis. In advanced economies, the euro area, the United States and Japan saw an acceleration in economic activity, while the United Kingdom recorded a deceleration. As regards emerging market economies, China maintained a robust pace of growth in the first half of the year and Brazil grew again, following a protracted period of recession.

The forecasts of the International Monetary Fund point to the current pace of growth continuing in the second half of the year, with annual overall growth expected to stand at 3.5%, after 3.2% in 2016 (Table 2.1).

The pace of growth in international trade increased in the first half of 2017, mostly owing to developments in imports of emerging market economies. In particular, the contribution from these economies to global growth in goods imports was the largest since 2011 (Chart 2.1).

Improvements in the global economic outlook and in the confidence of economic agents have also had an impact on the behaviour of financial markets. The main equity indices increased considerably from the end of the previous year, signalling optimism regarding firms' results. In turn, 10-year public debt yields remained at historically low levels, although above the minimum levels observed in mid-2016 (Chart 2.2). A possible explanation for the low yields is a decline in expectations for growth in long-term nominal GDP (Chart 2.3). Developments in risk premia have also played an important role, in particular following the economic and financial crisis. In spite of positive market developments, a number of factors generated volatility, most notably the French and British elections, as well as uncertainty regarding the size and date of implementation of the fiscal stimulus package announced by the President of the United States.

Table 2.1 • IMF projections for Gross Domestic Product | Real annual growth rate, in percentage

	WEO July 2017			Revisions from April 2017 *WEO* (pp)	
	2016	2017	2018	2017	2018
World	3.2	3.5	3.6	0.0	0.0
Advanced economies	1.7	2.0	1.9	0.0	-0.1
USA	1.6	2.1	2.1	-0.2	-0.4
Japan	1.0	1.3	0.6	0.1	0.0
United Kingdom	1.8	1.7	1.5	-0.3	0.0
Euro area	1.8	1.9	1.7	0.2	0.1
Emerging and developing economies	4.3	4.6	4.8	0.1	0.0
China	6.7	6.7	6.4	0.1	0.2
India	7.1	7.2	7.7	0.0	0.0
Russia	-0.2	1.4	1.4	0.0	0.0
Brazil	-3.6	0.3	1.3	0.1	-0.4

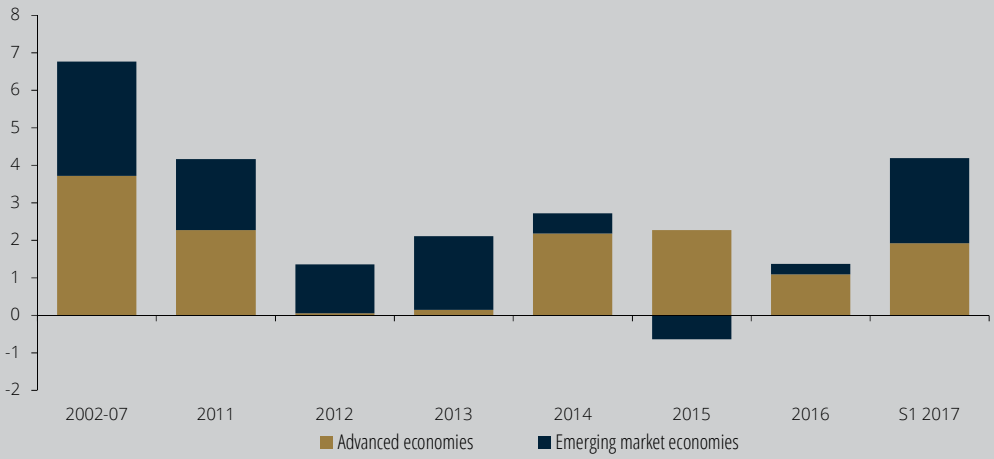
Source: IMF, *World Economic Outlook*, July 2017.

After increasing throughout 2016 and, in particular, since the OPEC agreement in November, oil prices reached a record high of USD 56.5 in February, and declined subsequently throughout the six-month period until they reached USD 47 in June. This behaviour was marked by market participants' uncertainty regarding the success of the OPEC's strategy of limiting production with the aim of increasing prices, in the face of a high volume of stocks and a growing number of active US shale oil rigs. Non-energy commodity prices showed a similar behaviour, following a growing trend up to February 2017, which was subsequently reversed.

In foreign exchange markets, the euro appreciated against most currencies and the US dollar depreciated. The yen and the pound sterling remained fairly stable in effective terms, while the renminbi depreciated by 2.1%. Following an improvement in expectations for euro area economic activity, the appreciation of the euro was particularly strong in the second quarter of the year, when it appreciated 7.7% against the yen, 7% against the US dollar, 5.4% against the renminbi and 3.2% against the pound sterling.

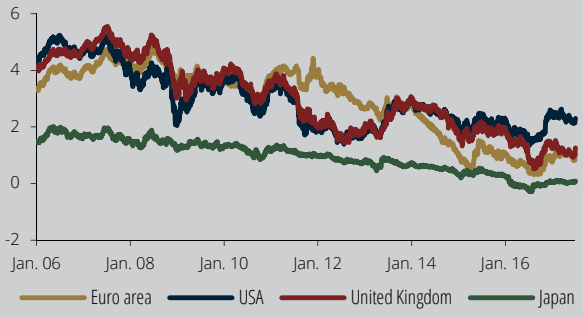
Advanced economies accelerated, although growth remains modest compared with the period prior to the economic and financial crisis

Chart 2.1 • Contributions to the growth of world imports of goods | In percentage points



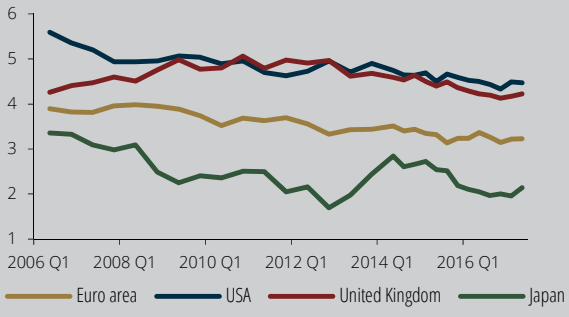
Source: CPB Netherlands Bureau for Economic Policy Analysis and Banco de Portugal calculations.

Chart 2.2 • 10-year sovereign debt rates | In percentage



Sources: ECB and Thomson Reuters.

Chart 2.3 • 5-10 years expectations for nominal GDP growth | In percentage



Sources: Consensus and Banco de Portugal calculations.

Note: Data from the quarterly survey of Consensus Economics to economic agents about real GDP growth and CPI inflation.

Advanced economies recorded year-on-year economic growth of 2.1% in the first half of 2017, compared with 1.7% for 2016 as a whole. Economic growth continued to be mostly supported by domestic demand.

Growth in the United States remained robust in the first half of 2017 (2.1% year-on-year), accelerating from the preceding six-month period. Labour market conditions continued to improve and unemployment declined from 4.7% in December 2016 to 4.4% in June 2017, already standing slightly below the median of estimates for long-term unemployment made by Federal Open Market Committee (FOMC) participants. Inflation, measured by the year-on-year change in the private consumption deflator, increased at the start of the year, mirroring the profile of energy goods, and reached a year-on-year rate of 2.2% in February. Subsequently, inflation declined gradually, standing at 1.5% in June. In view of the continued improvement in labour market conditions, the Federal Reserve increased the reference interest rates in two separate occasions (in March and June) during this period (Box 1).

Economic growth in the United Kingdom declined in the first half of 2017, owing to a deceleration in household spending. These developments in private consumption are partly associated with the impact of the depreciation of the pound sterling on household real disposable income, following the result of the referendum on whether the UK should remain in the European Union. Indeed, inflation increased considerably, from 1.6% at the end of 2016 to 2.6% in June 2017. The high uncertainty associated with the process of leaving the European Union and the June 2017 elections have marked developments in the UK economy. Against this background, the Bank of England has strived to establish a balance between the need to support economic activity and the obligation to reach the medium-term objective for inflation. During the first six months of the year, the Bank of England decided not to make any changes to its monetary policy.

Emerging market economies accelerated, continuing to benefit from accommodative financial conditions and, in the case of commodity-exporting economies, the increase in commodity prices in the second half of 2016. China grew by 6.8% in the first half of the year, in year-on-year terms, in line with 2016. Despite the apparently robust economic activity, the pace of credit growth in China gives rise to some concerns regarding medium-term financial stability. The levels of credit to the non-financial sector as a percentage of GDP are similar to those of advanced economies, moving increasingly further from the norm in emerging market economies (Chart 2.4).

Euro area economic activity accelerated, with growth being higher than expected

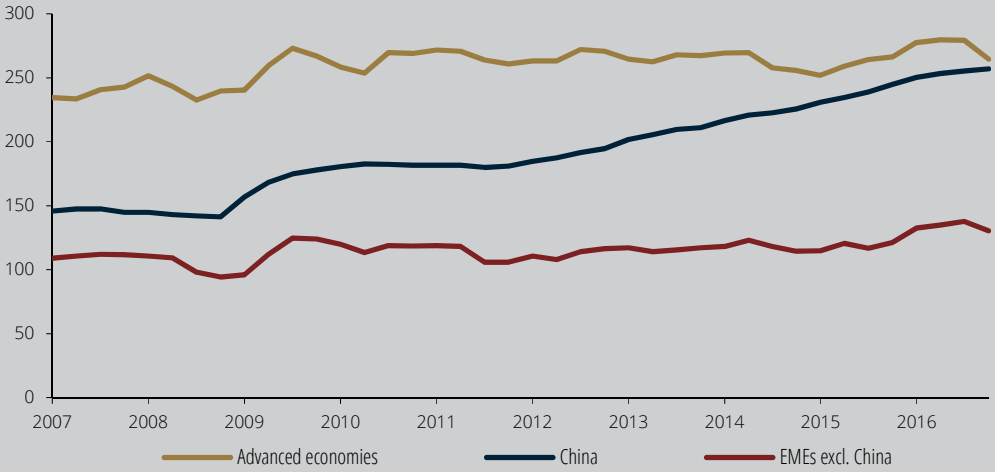
In the euro area,[1] GDP accelerated in the first half of the year across the three largest economies, with domestic demand continuing to be the main driver of economic growth. An analysis of year-on-year growth rates in the various euro area economic sectors shows that the share of sectors with positive growth has been increasing, while the dispersion of these growth rates stands at historically low levels (Chart 2.5). Consequently, real divergence among euro area countries within the context of the sovereign debt crisis has not yet clearly reversed (Chart 2.6).

The labour market continued to recover, with unemployment declining from 9.6% in December 2016 to 9.1% in June 2017, the lowest figure for the past eight years, albeit still considerably above the levels observed in the years prior to the economic and financial crisis. A broader measure of unemployment, taking into account part-time workers who would like to work full time, inactive individuals not seeking a job but who are available for work and inactive individuals seeking a job but who are not immediately available for work, suggests the slack in the labour market may be significantly higher. The recovery in the labour market has also reached these groups, although

it is unclear whether there will be a return to the situation prior to the crisis, given the low employment prospects of some of these groups, such as the very long-term unemployed, i.e. unemployed for more than 2 years (Chart 2.7).

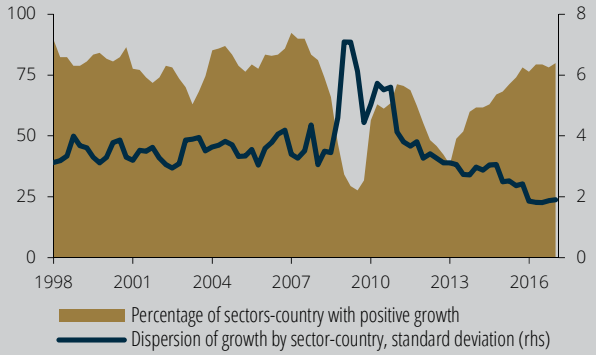
In the first half of the year, external demand for Portuguese goods and services – calculated in accordance with the Eurosystem methodology, where the Angolan economy is not taken into account – accelerated considerably, growing by 4.0%, year-on-year, compared with growth of only 1.7% in 2016 (Table 2.2). Increased growth in demand from euro area trade partners was particularly important for this acceleration, but also demand from the United States, which grew by 4.0% in the first half of the year, after 1.3% in 2016. Taking into account goods and services imports in Angola, the acceleration in external demand was even more pronounced, from 0.3% in 2016 to 5.2% in the first half of 2017.

Chart 2.4 • Credit to the non-financial sector as a percentage of GDP



Sources: BIS, Thomson Reuters and Banco de Portugal calculations.

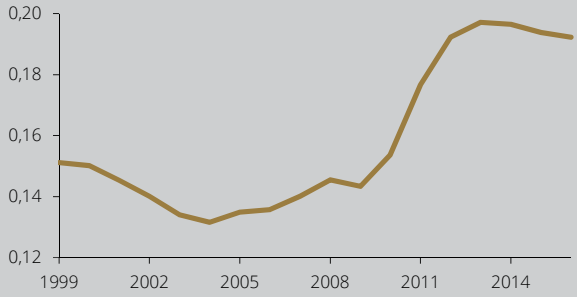
Chart 2.5 • Economic growth in the euro area by country and sector



Sources: Eurostat and Banco de Portugal calculations.

Notes: The data used included 10 sectors in 17 countries of the euro area (Ireland and Malta were excluded), comprising a total of 170 series. The dispersion of growth corresponds to a weighted standard deviation, using the relative size of the sector-country in the total GVA of the euro area as weights.

Chart 2.6 • Real income convergence in the euro area | Coefficient of variation



Sources: IMF and Banco de Portugal calculations.

Note: Computed using GDP per capita adjusted by relative purchasing power parity in the ten largest euro area countries, excluding Ireland (Austria, Belgium, Finland, France, Germany, Greece, Italy, Netherlands, Portugal and Spain).

Table 2.2 • External demand of goods and services for the Portuguese economy | Year-on-year rate, in percentage

		t.v.h.							
	Weights[b]	2013	2014	2015	2016	S2 2015	S1 2016	S2 2016	S1 2017
External demand (ECB) [a]	100.0	1.9	4.9	3.9	1.7	3.4	1.8	1.6	4.0
Intra euro area external demand	61.8	0.9	5.2	5.7	3.5	5.7	4.2	3.0	4.8
of which:									
Spain	24.8	-0.5	6.5	5.6	3.3	6.1	4.9	1.6	4.2
Germany	12.1	3.1	3.5	5.2	3.8	4.9	3.7	3.9	4.5
France	12.2	2.2	4.8	5.5	4.2	5.8	4.4	4.0	4.4
Italy	3.3	-2.3	3.1	6.7	3.1	6.4	2.2	4.0	6.6
Extra euro area external demand	38.2	3.9	4.4	1.1	-1.2	-0.2	-1.8	-0.6	2.8
of which:									
United Kingdom	6.3	3.4	2.5	5.5	2.8	4.8	2.1	3.6	3.5
USA	4.7	1.1	4.5	5.0	1.3	4.2	0.8	1.7	4.0
Memo:									
Goods and services imports from Angola [c]	4.8	9.0	11.4	-21.8	-27.8				
Adjusted external demand [d]		2.4	5.3	2.4	0.3	1.9	0.4	0.2	5.2

Sources: ECB, CPB, IMF, Thomson Reuters and Banco de Portugal calculations.

Notes: (a) External demand is computed as a weighted average of the imports volume of Portugal's main trading partners. Each country/region is weighted by its share in Portuguese exports. (b) Shares computed using 2016 data. (c) The weight refers to the weight of nominal goods and services exports to Angola on portuguese exports. (d) External demand indicator adjusted for the importance of the foreign trade with Angola. Corresponds to the weighted average (by the exports weight) between the external demand indicator calculated by the ECB and the volume of the goods and services imports of the Angolan economy.

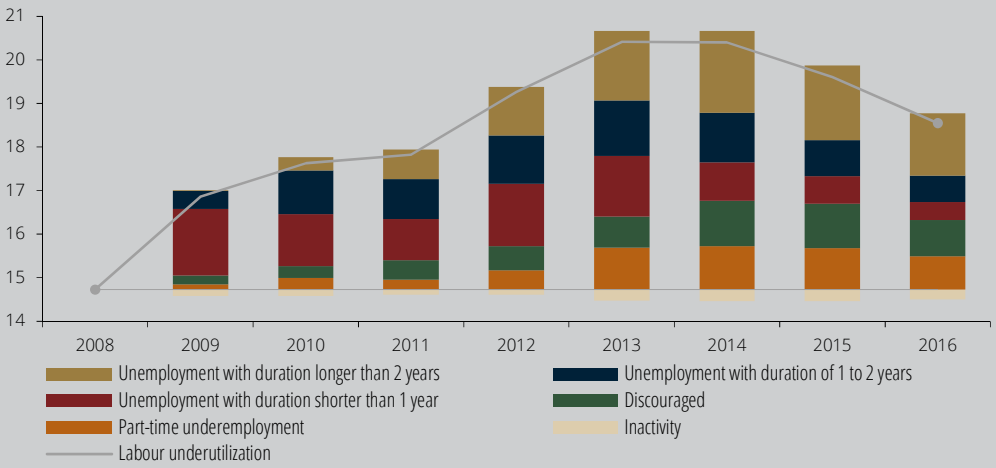


Chart 2.7 • Labour underutilization – contributions to the evolution after 2008 | In percentage points

Sources: Eurostat and Banco de Portugal calculations.

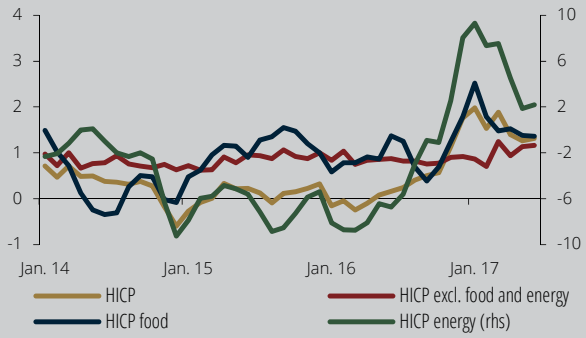
Note: The category labeled as 'Discouraged' refers to the inactive people who are not searching for a job but who are available to work, while the category 'Inactivity' refers to the inactive people who are searching for a job but are not immediately available to work.

Euro area inflation increased at the start of the year, declining gradually afterwards, as the effects of the oil price increase began to fade

Euro area inflation, measured by the year-on-year rate of change of the Harmonised Index of Consumer Prices, increased significantly in the first two months of the year, declining after February. This profile was strongly influenced by the behaviour of energy and food prices, in particular the oil price increase at the end of 2016, but also the existence of a base effect derived from the fact that oil prices stood at minimum levels at the start of 2016. In turn, the year-on-year rate of change in the HICP excluding energy and food stood at 1.0% in the first half of the year. This rate has fluctuated around 0.8% in the past three years (Chart 2.8). Indeed, despite growth above potential and a drop in the unemployment rate, pressures on compensation remain contained, in contrast to the usual behaviour of the labour market since the beginning of the euro area (Chart 2.9).

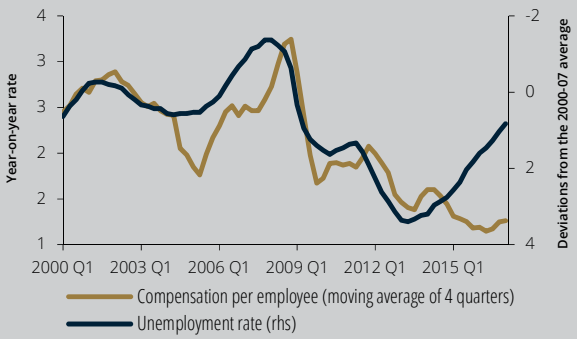
Long-term inflation expectations, measured by market instruments, remained at low levels. After recording a minimum level of 1.3% in mid-2016, expectations increased consistently during the following months. However, after February 2017 this trend was reversed, with expectations stabilising at 1.6% at the end of the six-month period. In turn, expectations based on the Survey of Professional Forecasters did not change significantly throughout 2017, continuing to point to inflation 4/5 years ahead of around 1.8%.

Chart 2.8 • Year-on-year rate for HICP and subcomponents in the euro area | In percentage



Source: Eurostat.

Chart 2.9 • Wage growth and unemployment in the euro area



Source: Eurostat.

Note: Regarding compensation per employee, the year-on-year rate is presented as a 4 quarters moving average to smooth the series and emphasize its medium term tendency.

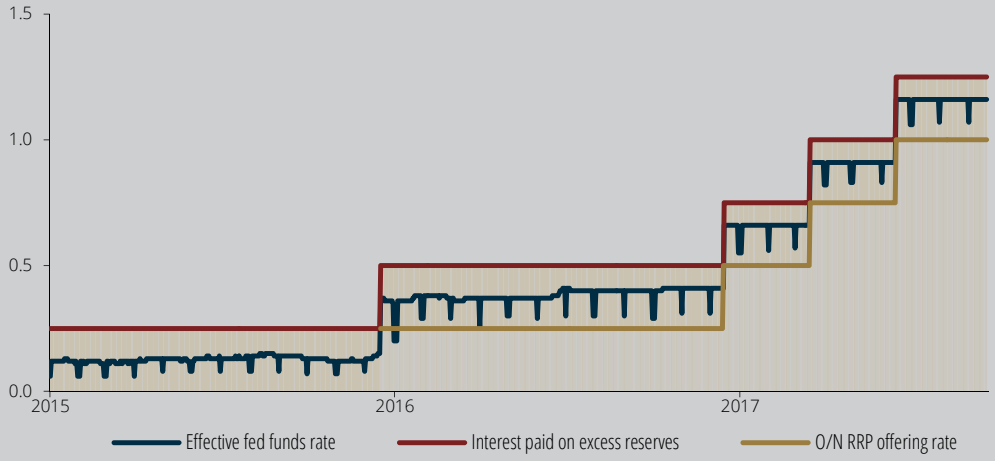
Box 1 | Normalisation of monetary policy in the US

The process of monetary policy normalisation in the United States – understood as a return of short-term interest rates and assets held by the Federal Reserve to more normal levels – intensified in the first half of 2017. Within the context of the economic recession of 2008–09, the Federal Open Market Committee (FOMC) adopted a historically exceptional set of measures. Firstly, the FOMC reduced short-term interest rates to close to zero and kept them at that level for approximately seven years. In addition, it adopted a large-scale asset purchase programme (US Treasury and mortgage-backed securities), which expanded the balance sheet of the Federal Reserve to a very high level, changing its usual composition in terms of asset type and maturity. Subsequently, the monetary authority of the United States, in order to preserve the high balance sheet level, maintained a reinvestment policy of the amounts relating to securities that have reached maturity or are paid down.[2] These measures were generally aimed at ensuring compliance with the United States' monetary policy objectives, most notably to maximise employment and ensure price stability.

The process of monetary policy normalisation has followed a previously outlined strategy, but is not predetermined, i.e. the process is established by the monetary authority taking into account macroeconomic circumstances, in accordance with its mandate.[3] This strategy foresees that, after a gradual normalisation of reference interest rates, the Federal Reserve balance sheet would begin to also adjust gradually. The FOMC began increasing the reference interest rates by 25 b.p. in December 2015, amid moderate economic growth, a significant drop in unemployment and low inflation, with prospects of a gradual increase to a level close to the 2% objective (Chart C.1.1). Considering the economic deceleration observed at the start of 2016, the FOMC only decided to increase the reference interest rates again in December 2016, and subsequently in March and June 2017.

In the operational environment to implement the monetary policy, the main intermediate objective continued to be the federal funds interest rate, established within a range which is 25 b.p. wide. However, the instruments used to control this interest rate have changed from the pre-crisis period.

Chart C.1.1 • Monetary policy interest rates | Percent



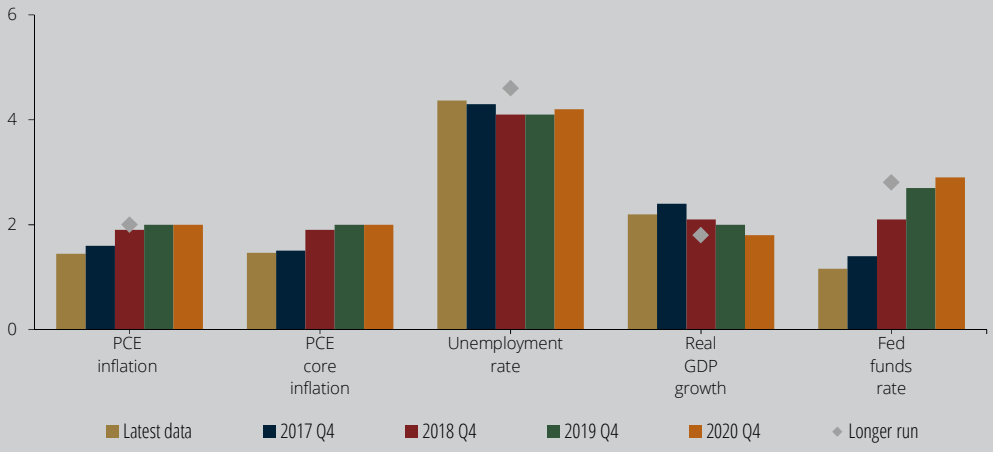
Source: FRED database.

Note: O/N RRP: Overnight reverse repurchase agreement (the Federal Reserve sells a security to an eligible counterparty and simultaneously agrees to buy the security back in the next day).

Unexpected increases in the federal funds rate are not expected to occur during the normalisation process, within a context of extremely abundant liquidity. It is, nevertheless, crucial that unwanted decreases are controlled. The federal funds rate has been controlled mainly using two administrative rates. Firstly, the interest rate paid by the Federal Reserve for the excess reserves of deposit institutions tends to keep these institutions from applying lower rates to federal fund loans and, through arbitrage, levels the rates applied by the other money market agents. However, the federal funds interest rate has effectively been lower than the interest rate on the excess reserves (Chart C.1.1). This is the result, on the one hand, of the money market activity currently being generated to a large extent by non-bank financial institutions which are not eligible for remunerated reserves and, on the other, other frictions associated with financial regulation, such as costs incurred by banks for increasing their balance sheet when carrying out arbitrage activities. In order to better control the federal funds interest rate, the Federal Reserve has been carrying out overnight reverse repurchase agreements (ON RRP facility) for a broader set of counterparties, thereby offering an investment alternative to other non-bank financial institutions at an interest rate slightly lower than the reserves interest rate.[4] The target range for the federal funds rate has been set, as an upper limit, by the interest rate on the excess reserves and, as a lower limit, by the offering rate associated with the ON RRP facility and has been reached fairly effectively. This range currently varies between 1.0% and 1.25%.

The FOMC anticipates that economic conditions will continue to justify gradual increases in the federal funds interest rate, although developments in rates depend on the economic outlook at each moment in time (Chart C.1.2). In accordance with the median projection of FOMC members, released in September 2017, official interest rates are expected to increase again by 25 b.p. already in 2017 and in three other occasions in 2018 (Chart C.1.2). In 2019 and 2020, the rates are expected to continue to increase, albeit more gradually. In addition, the FOMC also announced in September that the normalisation programme for the Federal Reserve balance sheet is to begin as early as October. The Federal Reserve intends to reduce its asset holdings in a gradual and predictable manner by decreasing reinvestments. In principle, securities are not expected to be sold as part of

Chart C.1.2 • Current conditions and Sep. 17 FOMC median projections | y-o-y growth rate and percentage of the labour force



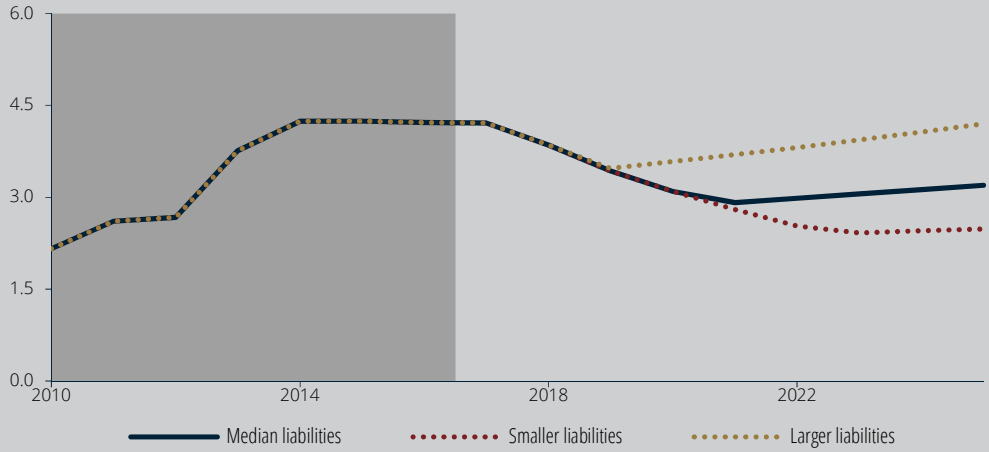
Source: Federal Reserve Board and Thomson Reuters.

Note: The Federal Open Market Committee (FOMC) does not release projections for the core (excluding food and energy) personal consumption expenditures (PCE) price index.

the normalisation process. This process will continue until the asset size reaches a level associated with a level of reserves considered to be adequate in the long run,[5] also taking into account the Federal Reserve's other liabilities and capital.[6] According to the FOMC, the supply of reserves is expected to decrease to a level below that seen for the past few years, but above the level observed in the pre-crisis period, reflecting the demand for reserves by banks and this committee's decisions on monetary policy implementation, in an efficient and effective manner. The duration of the normalisation process will consequently depend on the level of liabilities of the Federal Reserve in the long run. Based on market expectations, the Federal Reserve Bank of New York estimates that, were it to begin in October 2017, the process should end in the period between 2019 and 2023 (Chart Chart C.1.3).[7] If, in the meantime, the economic outlook deteriorates significantly, the FOMC may decide to resume the reinvestments or again change the size and composition of the Federal Reserve balance sheet, but the main means of adjusting monetary policy accommodation will continue to be the target range for the federal funds rate.

The monetary policy normalisation process in the United States has not led to any serious disruptions to the global economy. Fears of an abrupt tightening of global financial conditions, in particular in emerging market economies, including a reversal of capital flows, or possible disruptions caused by an appreciation in the US dollar to certain economies with exchange rates indexed to the US dollar, or with high external indebtedness, have not materialised. The FOMC's gradual approach and predictability are expected to have contributed to this, but mostly the fact that the normalisation process is accompanied by an improvement in the US economic outlook, with positive implications for the global economy and commodity prices, against a background of risk appetite and an increase in asset prices.[8]

Chart C.1.3 • Projections for the adjustment in Federal Reserve securities holdings considering alternative long-run liabilities scenarios | USD trillions



Source: Federal Reserve Bank of New York.

Notes: Projections are guided by the FOMC's Policy Normalization Principles and Plans and by market expectations (taken from the June 2017 Survey of Primary Dealers and Survey of Market Participants) for interest rates, the timing of when portfolio reductions will commence, and the long-run size and composition of the Federal Reserve's balance sheet. All scenarios assume a change in reinvestment policy, namely the application of the initial caps to reinvestments, in October 2017. The three scenarios differ at the long-run level of Federal Reserve liabilities (about 2.6/3.3/4.2 USD trillion in the smaller/median/larger scenario), including both reserve balances and non-reserve liabilities.

3. Monetary and financial conditions

3.1. Euro area

The ECB maintained an accommodative monetary policy stance in the first half of 2017

In the course of the first six months of 2017, the European Central Bank (ECB) proceeded with its asset purchases at the monthly pace announced in December 2016 – of €80 billion up to the end of March and €60 billion thereafter. The reduction in purchase volumes did not stem from monetary policy tightening. Instead, its value was calibrated to safeguard the very substantial level of monetary accommodation that is necessary to guarantee the sustained return of the inflation rate towards levels below, but close to, 2%. The ECB has announced its commitment to once again increase the pace of purchases should risk materialisation so warrant. Over the period under review, there were no changes to the key interest rates (-0.4% on the deposit facility, 0.0% on main refinancing operations and 0.25% on the marginal lending facility). Given the improved economic activity and the unwinding of deflation risks in the euro area, in June the ECB introduced changes in its communication on interest rates, and ceased references to the possibility of interest rates being further reduced in the future. In March 2017, the last TLTRO–II, announced one year before, was conducted (see Box 2).

Monetary and financial conditions in the euro area continued to improve

Monetary and financial conditions in the euro area were conditioned by volatility arising from uncertainty associated with election results in a number of jurisdictions, as well as some uncertainty about the normalisation pace of the various monetary policies worldwide. The beginning of the year saw an increase in both ten-year government debt yields and spreads against German debt, amid uncertainty about French election results. From March onwards, these spreads decreased up to the end of the semester. The spread of the Portuguese government debt yield against Germany followed a similar path, with a particularly marked fall after March, which resulted in a decrease in the spread larger than 100 b.p. between the beginning of the year and the end of the first half of 2017 (Charts 3.1 and 3.2). This coincided with a favourable sequence of developments in the Portuguese economy, including the closure of the excessive deficit procedure.

Monetary stimulus measures adopted by the ECB have continued to have a positive influence on the financing conditions of the economy. Credit continued to accelerate, growing at a year-on-year rate of 2.3% for non-financial corporations and 2.4% for households in the first six months of the year. Costs for this type of financing also continued to fall, to stand at 1.8% in June in the case of non-financial corporations, which corresponds to a historical low.

Bank lending survey results suggest that non-standard monetary policy measures still play a key role in the favourable developments in monetary and financial conditions (Chart 3.3). This conclusion is reinforced by an analysis of developments in the cost of borrowing of non-financial corporations, which shows that its reduction as of May 2014 was substantially greater than that suggested by the typical functioning of the monetary policy transmission mechanism. In particular, during this period, the reduction in the cost of borrowing of enterprises was higher than that in the EONIA. This was most notable in lower-rated countries, by contrast to that seen in 2011-12 (Chart 3.4).

3.2. Financing conditions of the private non-financial sector

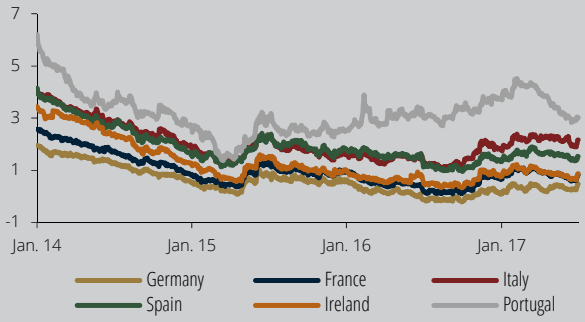
In the first half of 2017, financing conditions of the private non-financial sector in Portugal improved, benefiting from the maintenance of the ECB's accommodative monetary policy

stance and a more positive outlook for credit risk developments stemming from the upturn in economic activity.

Interest rates on new loans to households declined slightly

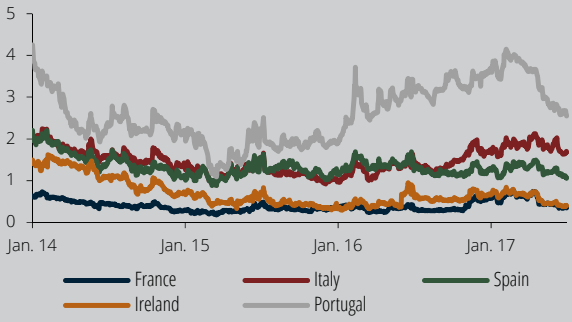
In the first half of 2017, interest rates on new bank loans to households stood, on average, slightly below the levels seen in the previous six-month period (Chart 3.5). The historically low levels of interest rates on loans for house purchase and consumption (with an annual percentage rate of charge – APRC – of 2.7% and 9.1% respectively in June 2017) largely reflect the low interbank benchmark interest rates, which remained in negative territory for maturities of up to one year. Furthermore, amid normalisation of financing conditions of the Portuguese economy and decreasing risk premia, developments in interest rates on loans to households have benefited since mid-2012 from the narrowing of spreads applied by banks. In June 2017 average spreads on loans for house purchase and consumer

Chart 3.1 • 10-year sovereign debt rates by country
| In percentage



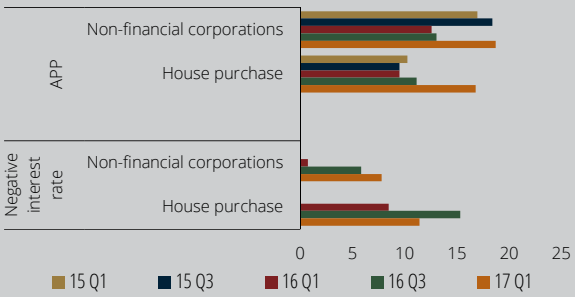
Source: Thomson Reuters.

Chart 3.2 • Spreads in 10-year sovereign debt rates by country against Germany
| In percentage points



Source: Thomson Reuters.

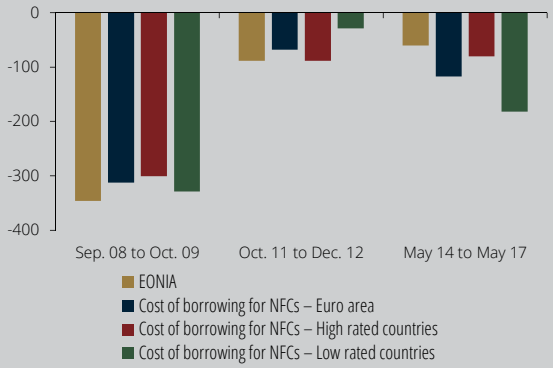
Chart 3.3 • Impact of the Asset Purchasing Programme and negative interest rates in credit
| Diffusion index



Source: ECB.

Notes: APP stands for asset purchase programme. The Bank Lending Survey is a quarterly survey to banks in the euro area. The diffusion index varies between -100 and 100. Values below (above) zero represent a negative (positive) contribution to the evolution of credit.

Chart 3.4 • Variation in the policy rate and the cost of borrowing of non-financial corporations (NFCs)
| In basis points



Sources: ECB, Bloomberg and Banco de Portugal calculations.

Notes: The cost of borrowing of non-financial corporations refers to the interests rates on new loans of short or long duration. The three chosen subperiods represent, respectively, the first reductions in the interest rate after the crisis, the subsequent reductions after a tenuous recovery and the period that included both negative interest rates and asset purchases.

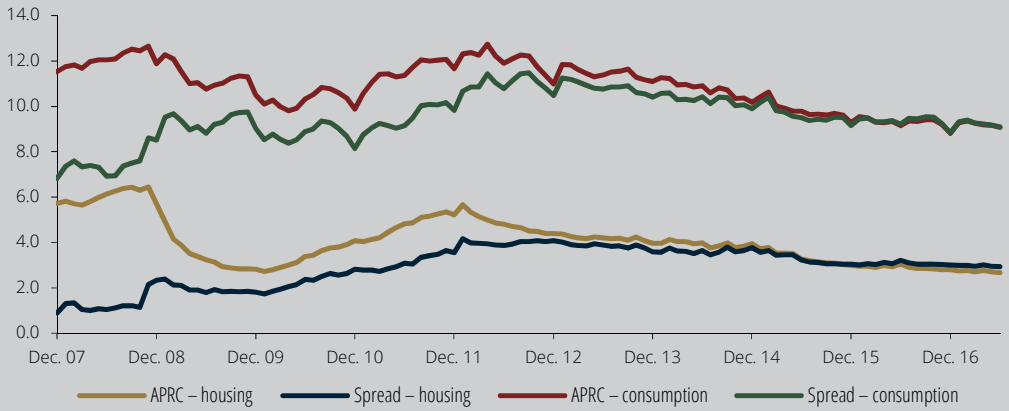
loans were close to those seen in mid-2011, but still well above those in the period before the economic and financial crisis, particularly in the case of loans for house purchase.

New housing loans increased and new consumer loans remained high

The amount of new bank loans to households for house purchase increased in the first half of 2017, maintaining the dynamic progress seen since the beginning of 2015 (Chart 3.6). In mid-2017 these loans reached a maximum level not seen since end-2010, but still accounted for only approximately half of the amounts seen in the years prior to the economic and financial crisis. Credit agreements with initial rate fixation period above one year (particularly, between one and five years) continued to account for around 40% of total new loans, after a substantial increase in their importance in 2016. New loans for house purchase were dynamic amid a considerable price hike in this market. Housing prices have accelerated significantly since 2014 (7.9% year-on-year rate of change in the first quarter of 2017), thus reversing the falls in the 2008–13 period, although, in real terms, they are still well below the figures recorded in 2008 (Chart 3.7). This acceleration in housing prices is partly due to increasing demand from non-residents. According to the bank lending survey, the better outlook for the housing market, including expected price developments, as well as improved consumer confidence and low interest rate levels, are the factors behind the higher demand for housing loans.

In the case of consumption, the amount of new loans was relatively stable in the first half of 2017, at levels close to those observed in the period before the economic and financial crisis (Chart 3.6). Among its components, there is a notable buoyancy in car loans and, particularly, credit used to purchase second hand cars (Chart 3.8). The share of consumer loans on private consumption has edged upwards, returning to levels close to those seen in the period prior to the crisis (Chart 3.9). The normalisation of credit standards by banks, following the tightening in the period between 2007 and 2012, as well as the sustained improvement in consumer confidence seem to be contributing to the increased recourse to credit by households to finance consumption.

Chart 3.5 • Interest rates on new loans granted by resident banks to households | Percentage and percentage points



Sources: Thomson Reuters and Banco de Portugal.

Notes: Average interest rates are based on new loans by initial fixation period and weighted by new loan amounts in each period. In the case of loans for consumption, the 6-month Euribor, the 1-year Euribor and the 5 year swap rate were considered as reference interest rates for loans with initial fixation period of less than 1 year, 1 to 5 years and more than 5 years, respectively. In the case of housing, the reference interest rate is the 6-month Euribor.

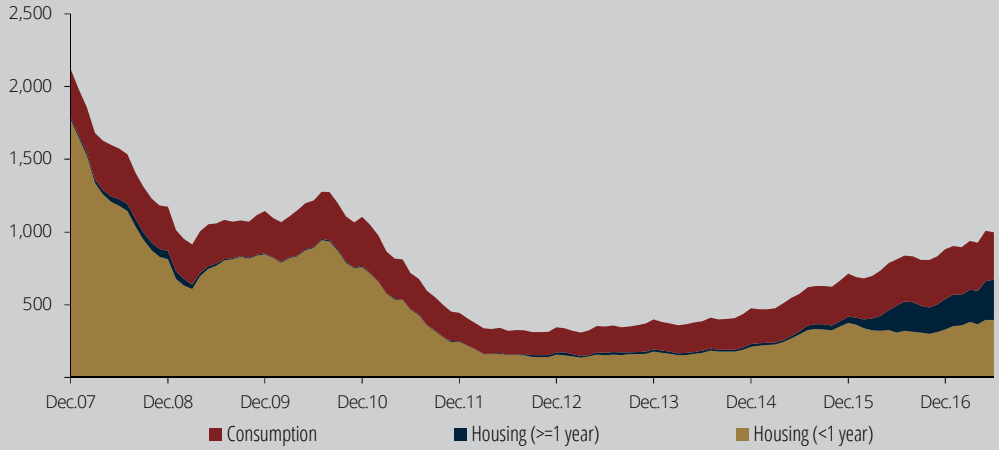


Chart 3.6 • New loans granted by resident banks to households | 3-month moving average, EUR millions

Source: Banco de Portugal.

Note: In the case of housing, new loan amounts are disaggregated by interest rate fixation period.

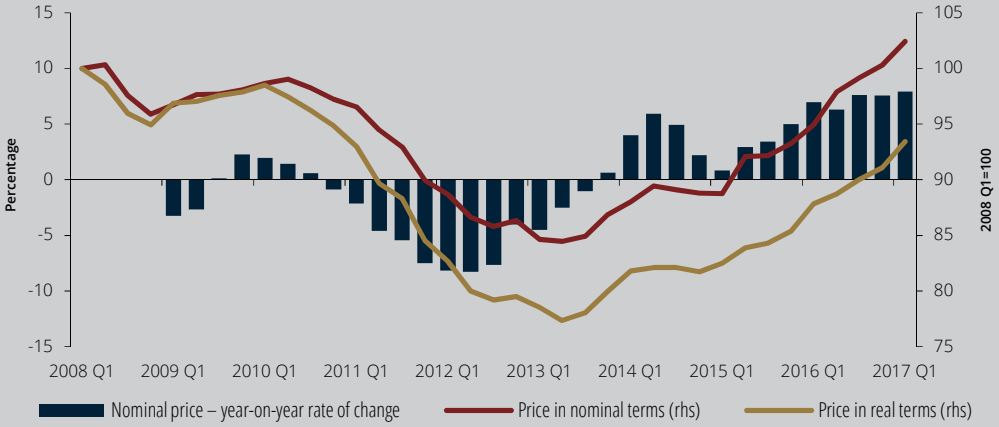


Chart 3.7 • Housing prices | Index and year-on-year rate of change in percentage

Source: INE.

Notes: The housing prices are measured by the House Price Index. The real price corresponds to the ratio between that index and the HICP.

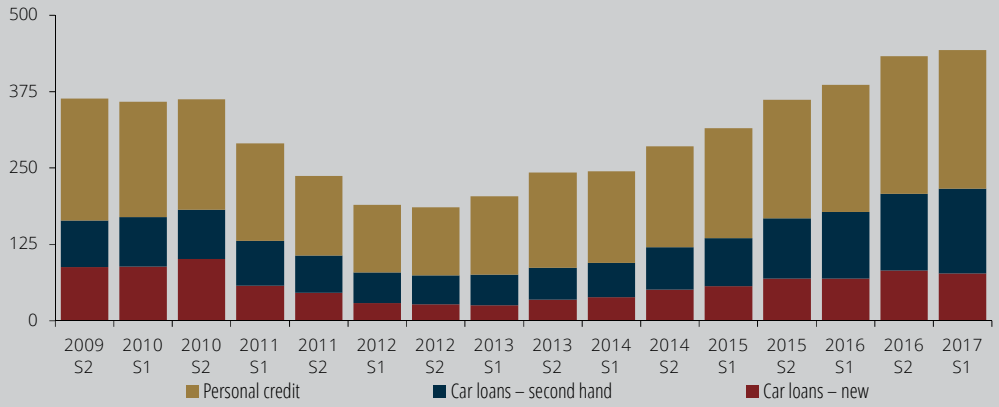


Chart 3.8 • New loans to households for consumption by credit category | Monthly average, EUR millions

Source: Banco de Portugal.

Notes: New loan amounts for consumption granted by financial institutions. The analysis excludes credit cards, current accounts, and overdraft facilities.

Total household debt decreased further

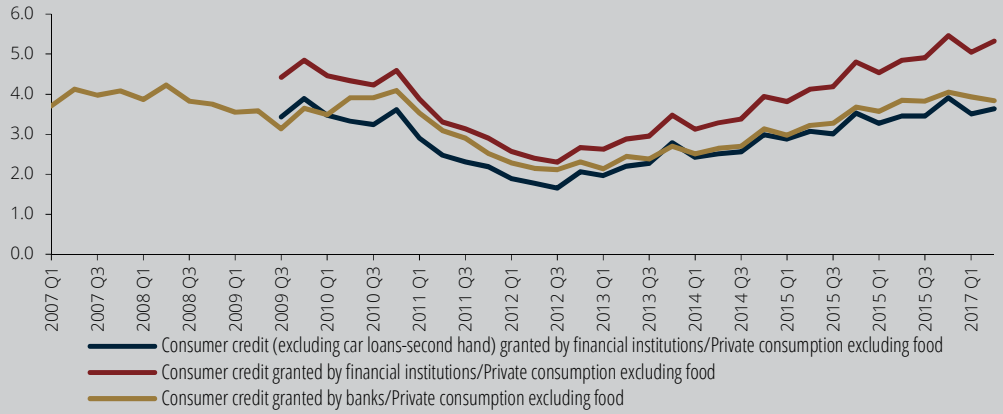
Despite the increase in new loans, the total amount of bank debt held by households is still edging downwards, with its annual rate of change standing at -1.1% in June 2017 (-1.6% in December 2016) (Chart 3.10). These developments are determined by the housing segment, where the amount of loan repayments still more than offsets new loans. By contrast, in consumer loans, the annual rate of change has stood at around 10% since the end of 2016, which corresponds to a peak since 2009.

Financing costs of enterprises have declined to low levels, particularly in the case of loans and debt securities

In the case of non-financial corporations, aggregate financing costs, in real terms, have followed a downward path from the peak in 2012

Chart 3.9 • Weight of new loans to households for consumption on private consumption

| In percentage

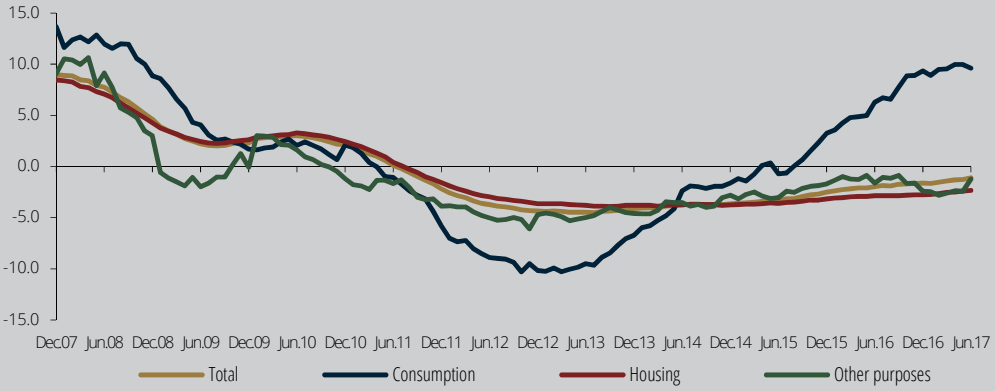


Source: Banco de Portugal.

Notes: New loan amounts for consumption granted by financial institutions. The analysis excludes credit cards, current accounts, and overdraft facilities. Data on loans granted by all financial institutions are only available from July 2009.

Chart 3.10 • Loans granted by resident banks to households

| Annual rate of change, percentage



Source: Banco de Portugal.

Notes: Annual rates of change are based on the relation between end-of-month outstanding amounts (adjusted for securitisation operations) and monthly transactions. Monthly transactions correspond to the difference in the end-of-month outstanding amounts adjusted for reclassifications, write-offs/write-downs, exchange rate and price revaluations, and any other variations that do not correspond to financial transactions. Whenever relevant, figures are additionally adjusted for sales of credit portfolios.

(13.2%), standing in the first half of 2017 close to the levels seen at the end of 2010 (5.9%) (Chart 3.11). All sources of funding and, particularly in the most recent period, bank loans and debt securities have contributed to these favourable developments. In both cases, financing costs of enterprises are, in both real and nominal terms, at historically low levels. Over the past few years, long-term debt has posted lower costs than other sources of funding for enterprises.

In the case of bank loans, nominal interest rates on new loans to non-financial corporations followed, similarly to households, a slightly downward path in the first half of 2017. This was accompanied by a narrowing of the spreads against market interest rates to levels close to those seen at the end of 2008 (Chart 3.12). The spread against the average interest rate on loans to euro area non-financial corporations also decreased further, in line with the normalisation of financing conditions of Portuguese enterprises, following a period of high credit

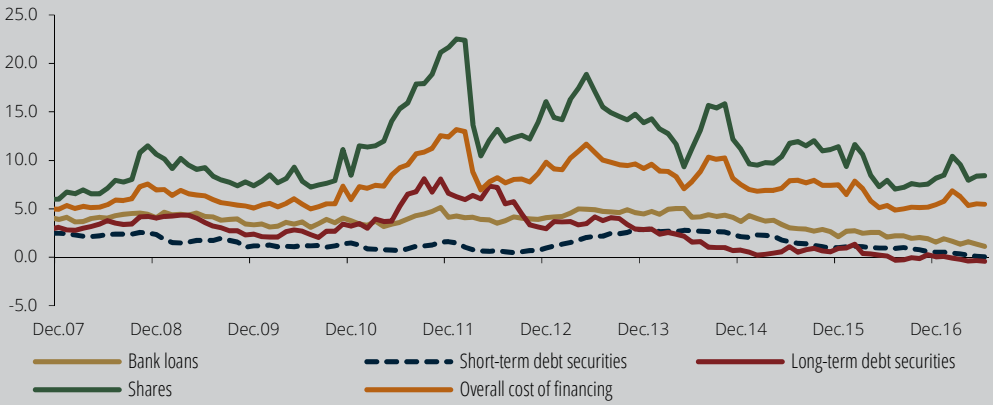


Chart 3.11 • Real cost of financing of the non-financial corporations in real terms | In percentage

Sources: Barclays, Consensus Economics, ECB, Lehman Brothers, Thomson Reuters and Banco de Portugal.

Notes: The cost of financing with bank loans, short-term debt securities and long-term debt securities is measured, respectively, by the interest rates on new loans granted by resident banks, interest rates on commercial paper and the yield implicit in the Barclays index for bonds issued by Portuguese corporations. The cost of equity financing is calculated based on the Three Stage Dividend Discount Model, using data from the Morgan Stanley International Capital Index (MSCI) for Portugal. Consensus Economics' inflation expectations for horizons comparable with the maturities of the different instruments were used to deflate the nominal values. The overall indicator results from the aggregation of the partial indicators, using the outstanding amounts of each of the financing instruments as weights. The cost of equity financing was weighted by the outstanding values of quoted and unquoted shares.

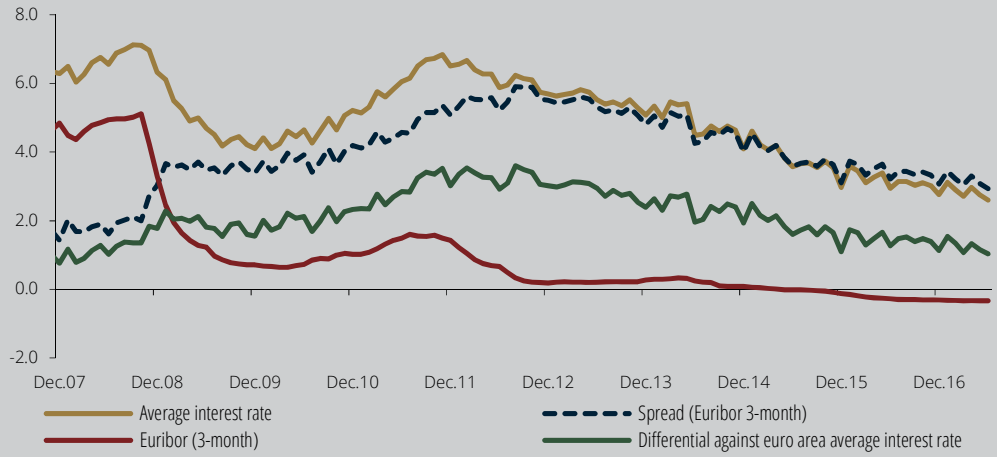


Chart 3.12 • Interest rates on new loans granted by resident banks to non-financial corporations | Percentage and percentage points

Sources: ECB, Thomson Reuters and Banco de Portugal.

Note: Average interest rates are based on new loans by initial fixation period, weighted by new loan amounts in each period.

market fragmentation in the euro area during the sovereign debt crisis.

Between mid-2016 and mid-2017, the reduction in interest rates on new loans was broadly based across enterprises with varied credit risk levels (Chart 3.13). For enterprises with high credit risk, higher interest rates posted the most substantial decrease. Nonetheless, average interest rates on new loans granted to enterprises with high credit risk continue to be well above those applied to enterprises with low credit risk and are associated with greater dispersion levels.

Signs point to a slight increase in the enterprises' demand for loans granted by resident banks

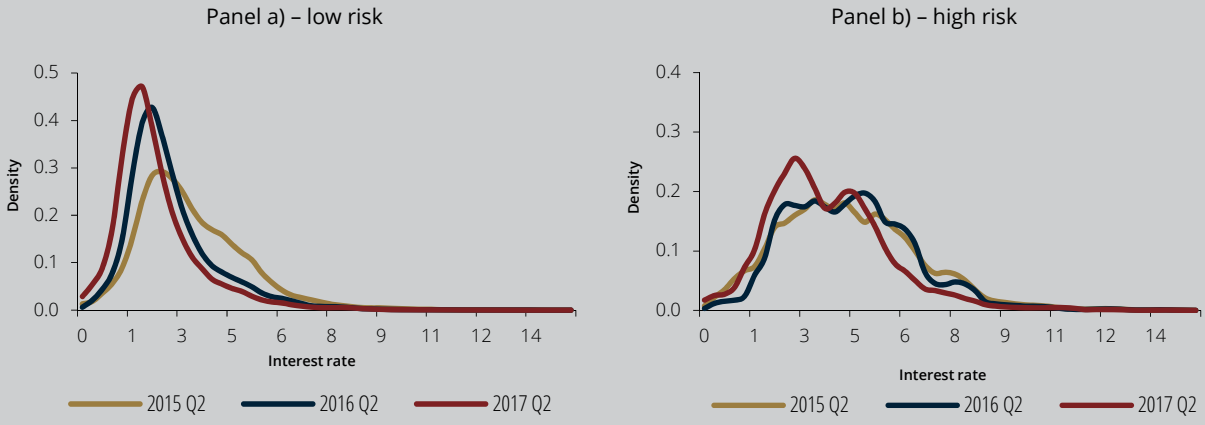
According to the Bank Lending Survey, demand for loans by enterprises was slightly stronger in the first half of 2017 than at the end of 2016. According to respondents, borrowing requirements to fund fixed investment contributed to this dynamics (Chart 3.14). Low interest rate levels, as well as financing needs related to inventories and working capital, are other factors that, according to banks, are making positive contributions to demand. The slight increase in demand for loans by enterprises over the past few years seems to be increasingly accompanied by lending by resident financial institutions to enterprises with which they had no previous lending relationship (Box 3).

Total outstanding loans granted by resident banks to enterprises decreased further, but increased for enterprises with lower credit risk

Loans granted by resident banks to non-financial corporations fell by an annual rate of 2.8% in June 2017 (-2.4% in December 2016). By credit risk profile, rates of change in loans to enterprises continued to display mixed behaviour (Chart 3.15). In particular, for enterprises in the lowest credit risk quartile, loans had positive year-on-year rates of change in June 2017, as has been the case since mid-2014. Loans to enterprises in the second lowest risk quartile posted a fairly less marked reduction than loans to enterprises with high credit risk.

The mixed behaviour of credit growth according to the enterprises' risk profile is also highlighted in Box 4. The reduction in loans granted by

Chart 3.13 • Density distribution of interest rates on new loans granted by banks to private non-financial corporations by credit risk profile



Source: Banco de Portugal.

Notes: Interest rates weighted by loan amounts. High (low) risk firms lie in the first (last) quartile of the credit risk distribution. Credit risk is measured by the Z-score estimated according to Antunes, Gonçalves and Prego, 'Firm default probabilities revisited', *Banco de Portugal Economic Studies*, Vol. 2, No 2, April 2016.

resident financial institutions to enterprises has been chiefly due to loans granted to enterprises that remain in the market (in line with a substantial contribution of the deleveraging of enterprises to the reduction in total debt), particularly to enterprises with non-performing loans. In recent years, the positive contribution of enterprises that entered the credit market to loan growth has increased, after remaining at low levels during the 2010–14 period. This suggests that a greater shift in the loan portfolio composition of resident financial institutions is underway.

The reduction in enterprises' debt to the resident financial sector was offset by a positive contribution of financing from the rest of the world

The annual rate of change in total credit to non-financial corporations was close to zero in the second quarter of 2017 (-1% at the end of 2016) (Chart 3.16). Similarly to that seen since end-2015, the non-resident sector made

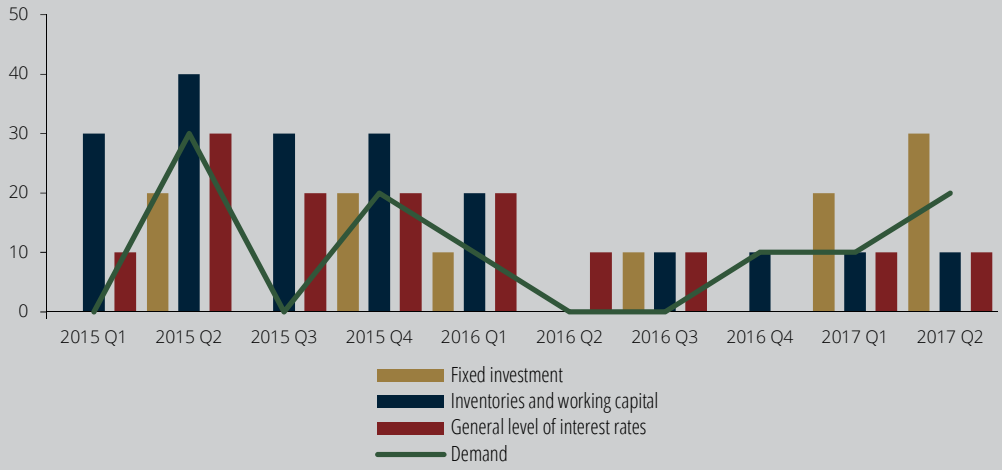


Chart 3.14 • Evolution and determinants of demand for loans by non-financial corporations | Diffusion index

Source: Banco de Portugal.

Notes: The diffusion index varies between -100 and 100. Values of less (more) than zero means a decrease (increase) of demand or a negative (positive) contribution for the change in demand.

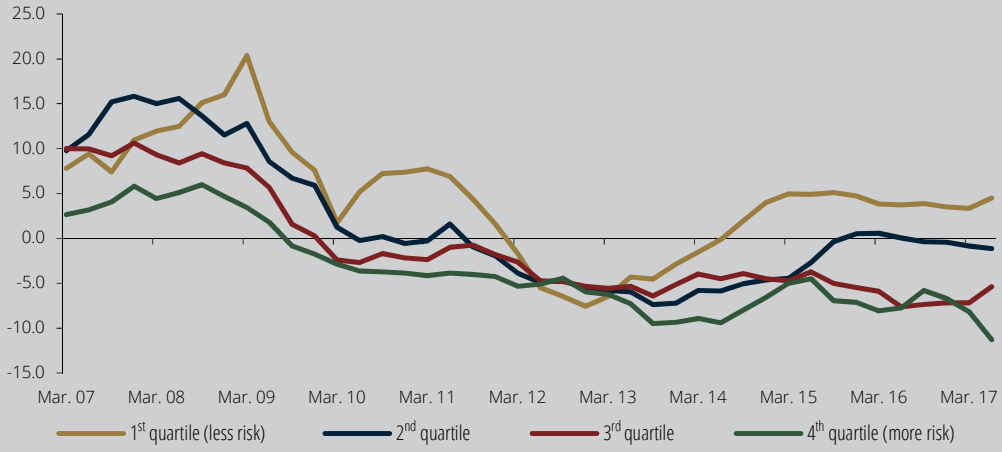


Chart 3.15 • Loans granted by resident financial institutions to private non-financial corporations by credit risk quartile | Year-on-year rate of change, percentage

Source: Banco de Portugal.

Notes: Credit risk is measured by the Z-score estimated according to Antunes, Gonçalves and Prego, 'Firm default probabilities revisited', *Banco de Portugal Economic Studies*, Vol. 2, No 2, April 2016. The year-on-year rate of change is the annual rate of change of outstanding amounts in each month.

a positive contribution to enterprises' funding in Portugal, which virtually offset the reduction in enterprises' indebtedness to the resident sector, particularly the financial sector. The positive contribution of credit from non-residents has been associated with securities financing and, to a larger extent, loan financing. In the first half of 2017 the contribution of loans from the rest of the world fell, thus leading to a decrease in the external contribution to total credit growth.

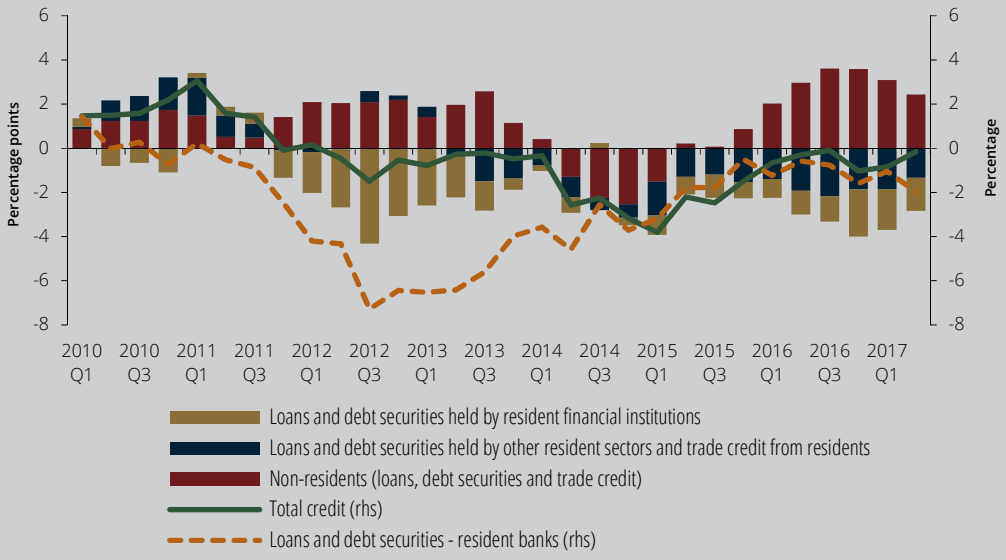
Credit to enterprises continued to display mixed developments by sector of activity

Among the main sectors of activity, in June 2017 the annual rates of change in total credit remained positive for trade, manufacturing and, particularly, for professional, scientific, technical and administrative activities (Chart 3.17, panel a). The latter sector's dynamic progress of credit is due to the fact that it includes the activity of parent companies of non-financial groups, which obtain funding (namely from abroad) subsequently channelled to the other enterprises in the group. As in the case of enterprises as a whole, in most sectors of activity, total credit developments are more positive than in credit granted by resident banks (Chart 3.17, panel b). Manufacturing is an exception, where credit granted by resident banks posts higher growth rates than total credit. Electricity, gas and water, and construction are the sectors with the most negative rates of change in bank credit.

Increase in enterprises' securitised debt financing and reduction in loan financing

In terms of total credit, the positive contribution of securities to enterprises' financing, together with positive developments in trade credits, has offset the reduction in loans (Chart 3.18). The dynamic progress of securitised debt financing reflects not

Chart 3.16 • Total credit granted to non-financial corporations by financing sector | Annual rate of change and contributions, percentage and percentage points

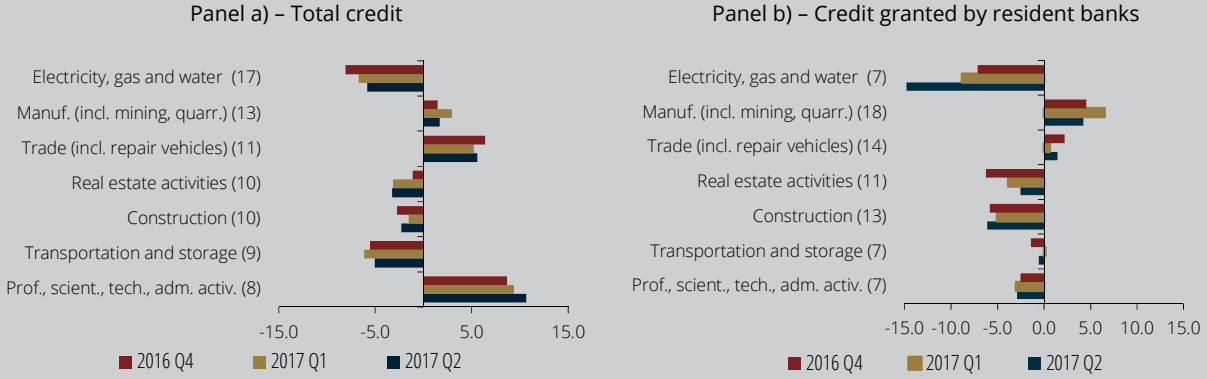


Source: Banco de Portugal.

Notes: Annual rates of change are based on the relation between end-of-month outstanding amounts (adjusted for securitisation operations) and monthly transactions. Monthly transactions correspond to the difference in the end-of-month outstanding amounts adjusted for reclassifications, write-offs/write-downs, exchange rate and price revaluations, and any other variations that do not correspond to financial transactions. Whenever relevant, figures are additionally adjusted for sales of credit portfolio.

only the increase in securities held by non-residents, but also the fact that, in terms of funding from residents, there has been a credit shift from loans towards securities. More favourable developments in financing costs associated with long-term debt securities compared with bank loans may be one of the factors behind the substitution between the two sources of financing.

Chart 3.17 • Credit to non-financial corporations by sector of activity | Annual rate of change, percentage



Source: Banco de Portugal.

Notes: In this chart credit includes loans and securities and does not include trade credit. Annual rates of change are based on the relation between end-of-month outstanding amounts (adjusted for securitisation operations) and monthly transactions. Monthly transactions correspond to the difference in the end-of-month outstanding amounts adjusted for reclassifications, write-offs/write-downs, exchange rate and price revaluations, and any other variations that do not correspond to financial transactions. Whenever relevant, figures are additionally adjusted for sales of credit portfolio. In the Y-axis, the values in brackets represent the weight of the credit to the sector on the credit to all non-financial corporations, considering in panel a) total credit and in panel b) only credit granted by resident banks.

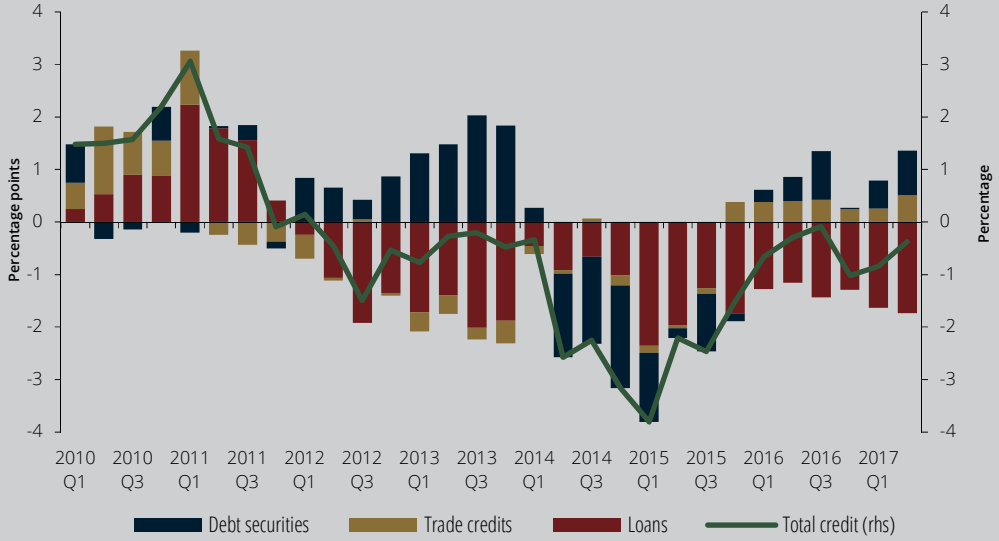


Chart 3.18 • Total credit granted to non-financial corporations by debt instrument | Annual rate of change and contributions, percentage and percentage points

Source: Banco de Portugal.

Notes: Annual rates of change are based on the relation between end-of-month outstanding amounts (adjusted for securitisation operations) and monthly transactions. Monthly transactions correspond to the difference in the end-of-month outstanding amounts adjusted for reclassifications, write-offs/write-downs, exchange rate and price revaluations, and any other variations that do not correspond to financial transactions. Whenever relevant, figures are additionally adjusted for sales of credit portfolio.

Box 2 | Targeted longer-term refinancing operations: characteristics and impact on the bank lending market

As of June 2014 the ECB has adopted an additional series of non-standard monetary policy measures to support lending to the real economy, enhance the functioning of the monetary policy transmission mechanism and, ultimately, achieve its main objective of price stability. These measures include two series of targeted longer-term refinancing operations (TLTROs). The first series (TLTRO-I) was announced in June 2014 and encompassed eight operations where credit institutions could borrow with a maturity of up to four years at the interest rate applied to main refinancing operations.[9] The amount that banks could borrow was linked to their lending behaviour. The amount provided in the first two operations was proportional to their outstanding amount of loans to non-financial corporations and households (excluding loans for house purchase). Banks that exceeded a bank-specific benchmark for net lending could borrow more in the following six TLTRO-I operations; those that did not meet their net lending benchmarks were required to repay their TLTRO-I borrowing early.[10] The second series (TLTRO-II) was announced in March 2016. The incentive offered by this scheme shifted to funding costs, which would be lower conditional on the amount of credit granted, and banks ceased to be subject to mandatory early repayment. The four TLTRO-II operations had a four-year maturity at a maximum rate equivalent to that applied in the main refinancing operations, which remained at 0% during their lifetime. Should loans to non-financial corporations and households (excluding loans for house purchase) granted by the bank exceed the benchmark amount in January 2018, the interest rate will be lower than the rate applied in main refinancing operations, and may be as low as the rate on the deposit facility (0.40% for the four operations). In practice, this is a 'subsidy' on bank lending activity. When the TLTRO-II was announced, the ECB also allowed banks to repay funds borrowed under TLTRO-I coinciding with the settlement date of the first TLTRO-II, rolling over amounts borrowed under the TLTRO-I into the TLTRO-II.

The more favourable conditions provided by TLTRO-II largely explain why this series was more successful. While in the eight operations conducted under the first series €432 billion were allotted, in the four TLTROII €740 billion were allotted (Chart C.2.1). Net of the repayments under the TLTRO-I, the total balance of the two series amounted to €761 billion.

The geographical distribution of TLTRO allotments points to a greater share of counterparties in countries deemed as vulnerable (Chart C.2.1). Banks' responses to the bank lending survey confirm that this group of countries is more interested in this type of operation. The main reason pointed out for participation in TLTROs is profitability. By comparing interest rates on TLTROs and interest rates on other sources of bank funding (Chart C.2.2), it becomes clear that TLTRO funding is relatively advantageous. This was even more the case of TLTRO-II, given that their rate may be as low as that on the deposit facility. Furthermore, in the last two operations, the overnight rate expected over the maturity of the operations had already exceeded the deposit facility rate, thus providing a further incentive to participate in such operations. This may have contributed to a greater recourse to the fourth operation.

In turn, the main reason indicated by a number of banks for non-participation in the TLTROs, particularly in Central European countries, was the lack of funding restrictions.

When surveyed about the uses of TLTRO funding, euro area banks indicated in bank lending surveys that they would use such funds first to grant loans, particularly to non-financial corporations.

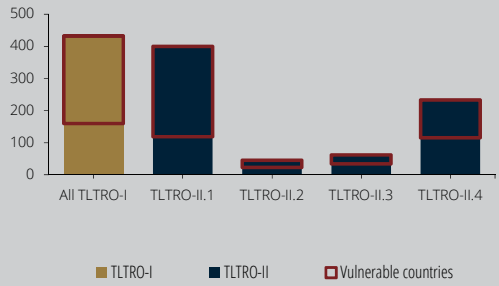
Second, such funds would be used to replace other funding sources. More specifically, in countries deemed as vulnerable and in France, banks reported that they intended to use TLTRO funds to replace other Eurosystem operations, while banks in countries such as Germany and the Netherlands first mentioned the replacement of maturing debt..

To confirm whether TLTROs have contributed to support lending to the economy, bank-level data on credit granted was analysed, to ascertain whether the behaviour of banks that used TLTRO funding has changed from the past compared with other banks, in terms of both increased credit flows and lower interest rates.

Charts C.2.3 and C.2.4 illustrate the distribution of changes in cumulated flows of loans to non-financial corporations and households excluding loans for house purchase, according to banks' bidding in the TLTROs and their geographical location. Data suggests that banks bidding in the TLTRO-II, particularly those located in countries deemed as vulnerable (with greater funding constraints, expectably), showed higher credit growth compared with the past and non-bidding banks. By contrast, there is no evidence of any significant effect associated with the TLTRO-I. However, it cannot be ruled out that the effects of the TLTRO-I have extended beyond the period reviewed in Chart C.2.3, which makes it more difficult to separate the effects from both series of operations.

TLTROs may have also contributed to ease financing conditions and, in particular, to lower interest rates on new loans. However, in a competitive market, prices should fit the conditions provided by the various competitors and, as such, it is not clear whether TLTRO funding should have any substantial effects on interest rates on new loans. Charts C.2.5 and C.2.6 show similar distributions to the above for changes in interest rates on new loans to non-financial corporations for the relevant period for each TLTRO. Changes in interest rates for both groups of banks and countries do not seem significantly different, which supports the second assumption.

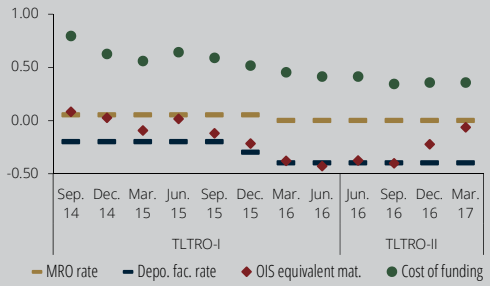
Chart C.2.1 • Allotted amount in targeted longer-term refinancing operations
| EUR billions



Source: ECB (Banco de Portugal calculations).

Note: All TLTRO-I – sum of the allotted amount in the 8 operations. Vulnerable countries – Portugal, Spain, Italy, Greece, Ireland, Cyprus and Slovenia.

Chart C.2.2 • Relevant interest rates to the decision whether to participate in TLTROs
| Percentage

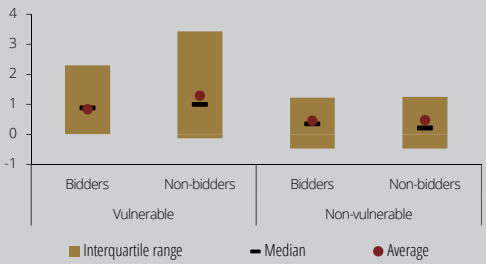


Sources: Bloomberg, Thomson Reuters and ECB (Banco de Portugal calculations).

Notes: OIS – Overnight Interest rate Swaps with equivalent maturity to the TLTRO. TLTRO-I have the same maturity date (September 26, 2018), while each TLTRO-II has a 4-year maturity. Banks' cost of funding is a weighted average of the cost of funding by deposits and debt securities.

Finally, it should be noted that other monetary stimulus measures were taken in parallel to TLTROs. Therefore, it is challenging to isolated the effects of TLTROs on the credit market. Nonetheless, available evidence suggests that TLTROs have helped to boost bank lending to the real economy, particularly in the case of the second series of TLTROs.

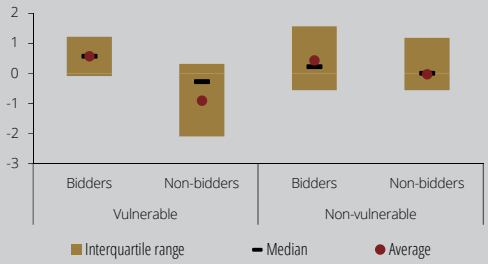
Chart C.2.3 • Distribution of changes in credit flows according to TLTRO-I participation | Percentage points



Source: ECB (Banco de Portugal calculations).

Note: Change in the ratio of the cumulated flows of new business loans to non-financial corporations and households (excluding for house purchase) to main assets between May 13/Apr. 14 and Jun.14/Feb. 16 (12-month average). Vulnerable countries – Portugal, Spain, Italy, Greece, Ireland, Cyprus and Slovenia. Includes 45 bidding banks and 47 non-bidding banks. Non-vulnerable countries group includes 55 bidding banks and 143 non-bidding banks.

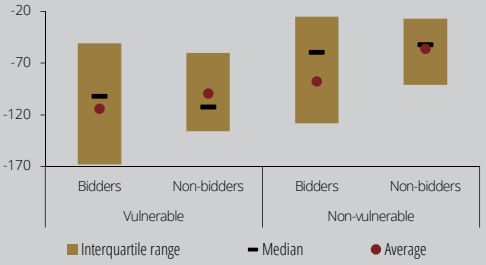
Chart C.2.4 • Distribution of changes in credit flows according to TLTRO-II participation | Percentage points



Source: ECB (Banco de Portugal calculations).

Note: Change in the ratio of the cumulated flows of new business loans to non-financial corporations and households (excluding for house purchase) to main assets between Feb. 15/Jan. 16 and Mar. 16/Jun. 17 (12-month average). Vulnerable countries – Portugal, Spain, Italy, Greece, Ireland, Cyprus and Slovenia. Includes 45 bidding banks and 40 non-bidding banks. Non-vulnerable countries group includes 70 bidding banks and 128 non-bidding banks.

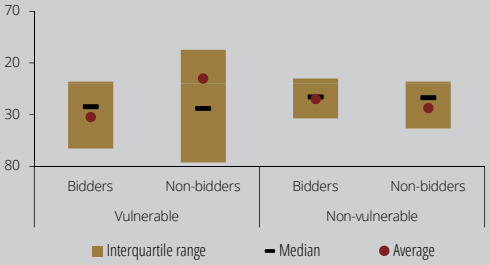
Chart C.2.5 • Distribution of changes in interest rates on new business loans according to TLTRO-I participation | Basis points



Source: ECB (Banco de Portugal calculations).

Note: Change in the weighted average rate of interest rates on new business loans to to non-financial corporations between Jun. 14 and Feb. 16. Vulnerable countries – Portugal, Spain, Italy, Greece, Ireland, Cyprus and Slovenia. Includes 44 bidding banks and 32 non-bidding banks. Non-vulnerable countries group includes 51 bidding banks and 113 non-bidding banks.

Chart C.2.6 • Distribution of changes in interest rates on new business loans according to TLTRO-II participation | Basis points



Source: ECB (Banco de Portugal calculations).

Note: Change in the weighted average rate of interest rates on new business loans to to non-financial corporations between Mar. 16 and Jun. 17. Vulnerable countries – Portugal, Spain, Italy, Greece, Ireland, Cyprus and Slovenia. Includes 44 bidding banks and 28 non-bidding banks. Non-vulnerable countries group includes 62 bidding banks and 97 non-bidding banks.

Box 3 | CCR consultations and the establishment of new lending relationships: characterisation of the 2011-2017 period

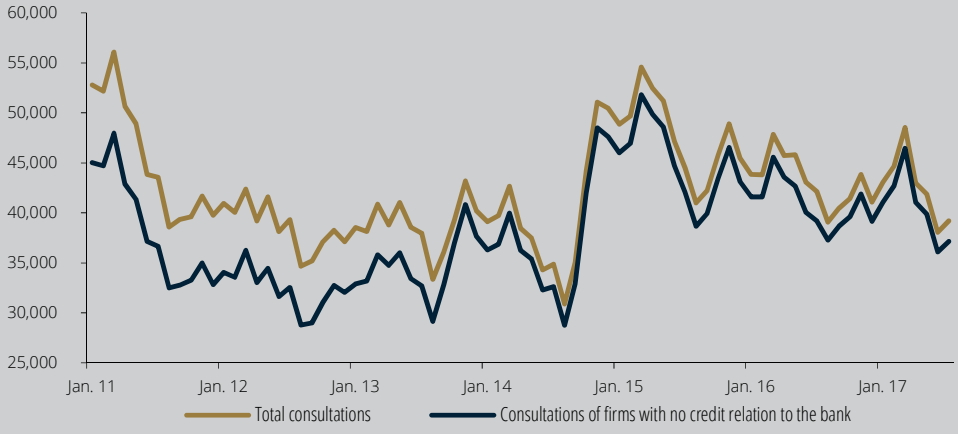
Banco de Portugal's Central Credit Responsibility (CCR) contains granular information on outstanding loans to enterprises and households granted by credit institutions operating in Portugal. In particular, this information discloses whether the credit is regular or in default. As of 2010 Banco de Portugal has provided an online consultation platform, through which financial institutions can access the credit status of each enterprise and individual included in the CCR. This data makes it possible for lenders to better assess the risk level of a potential customer. In the case of their credit customers, banks receive this information on a monthly basis, but to gain access to this data in the case of potential customers, the debtors in question must give their consent and banks must pay a nominal sum.

This box focuses solely on consultations by financial agents on the status of non-financial corporations, for the period between January 2011 and July 2017. In the following analysis, consultations made in the same month by the same bank on the same enterprise are deemed a single consultation.

Around 90% of all consultations regard enterprises that have not yet borrowed from the institution consulting the CCR. This suggests that one of main goals of consulting banks is to reduce the asymmetry of information regarding the potential new customer when a loan is requested.

The number of monthly consultations (Chart C.3.1) by banks on the status of enterprises with which they have no lending relationship was 38 thousands, on average, in the period under review. In the period between 2012 and 2014 the number of consultations was relatively lower (35 thousands, on average), with an upward trend as of 2015 (on average, 42 thousands monthly consultations). By comparing the number of consultations per month and the number of enterprises subject to consultation (Chart C.3.2), it can be seen that often the same enterprise is subject to consultation in the same month by more than one credit institution. The number of enterprises

Chart C.3.1 • Number of consultations of firms per month | 3 month moving average, in units

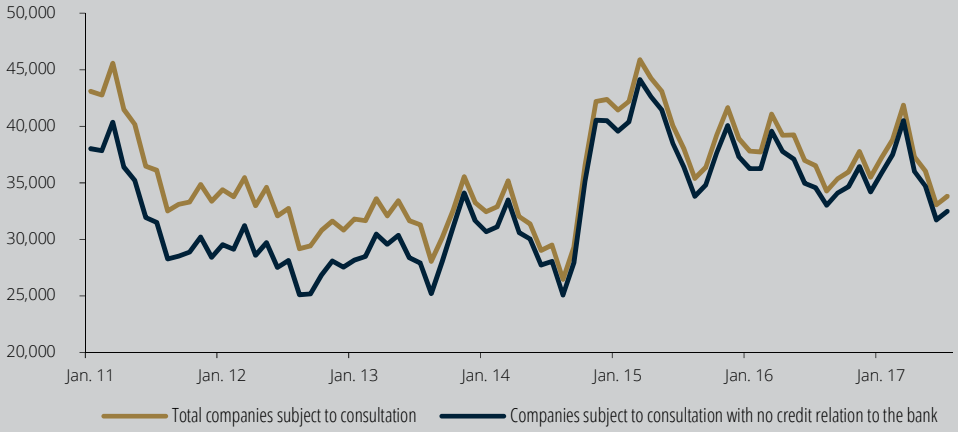


Source: Banco de Portugal.

that were subject to consultation by an institution with which they have no lending relationship stood, on average, at 33 thousand per month (Chart C.3.2) and 156 thousand per year. Changes over time in the number of consultations were chiefly due to changes in the number of enterprises that were subject to consultation. In fact, as illustrated by Chart C.3.3, the average number of banks consulting the CCR on a given enterprise has been relatively stable over time, at around 1.4.

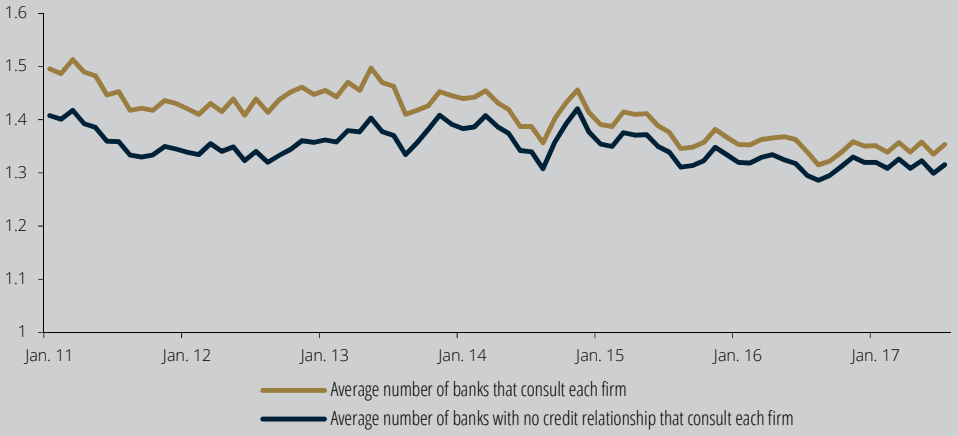
Approximately 60% of all consultations regard microenterprises, which is associated with the high number of this type of enterprise in Portugal. However, only 31% of microenterprises are subject to consultation at least once a year, which reflects the fact that many such enterprises do not apply for loans (Chart C.3.4). By contrast, in the two largest size classes, almost all enterprises are subject to consultation by a bank at least once a year.

Chart C.3.2 • Number of companies subject to consultation per month | 3 month moving average, in units



Source: Banco de Portugal.

Chart C.3.3 • Number of banks that consult each firm's position in CCR | 3 month moving average, in units



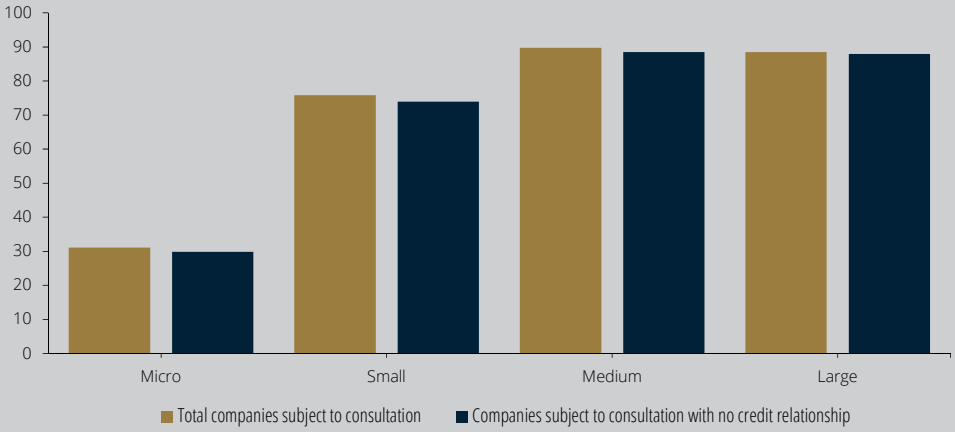
Source: Banco de Portugal.

By matching information on consultations regarding potential debtors and information on the establishment of new lending relationships on the basis of the CCR, it is possible to calculate the conversion rate of consultations into new lending relationships. In this box, a consultation is deemed to have resulted in a new lending relationship when, in a given month, an enterprise subject to consultation by a bank from which it had not yet borrowed obtained a loan from that bank in the following 12 months.

Chart C.3.5 shows that the longer the period of time since the consultation, the smaller the probability for an enterprise to establish a new lending relationship.

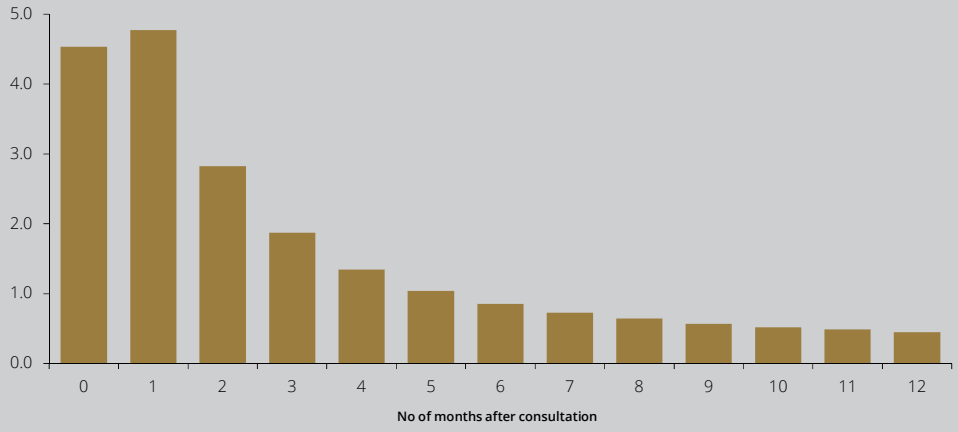
Chart C.3.6 illustrates developments over the period under review in the conversion rate of consultations into new relationships, as well as the percentage of enterprises that have established

Chart C.3.4 • Percentage of companies subject to consultation per dimension class | Average of the yearly percentages



Source: Banco de Portugal.

Chart C.3.5 • Percentage of consultations converted into new credit relationships, per month since previous consultation | In percentage

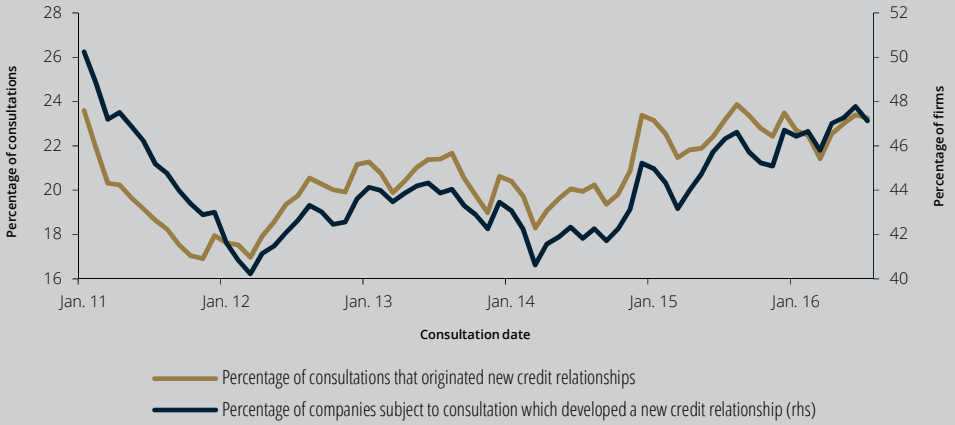


Source: Banco de Portugal.

a new relationship in the 12 months after they were subject to consultation.[11] On average, 21% of consultations were followed, over the next 12 months, by a new lending relationship with the consulting bank, and 44%[12] of enterprises that were subject to consultation had a new lending relationship up to 12 months after the consultation. Both measures posted a marked fall during 2011, and an upward trend since mid-2014.

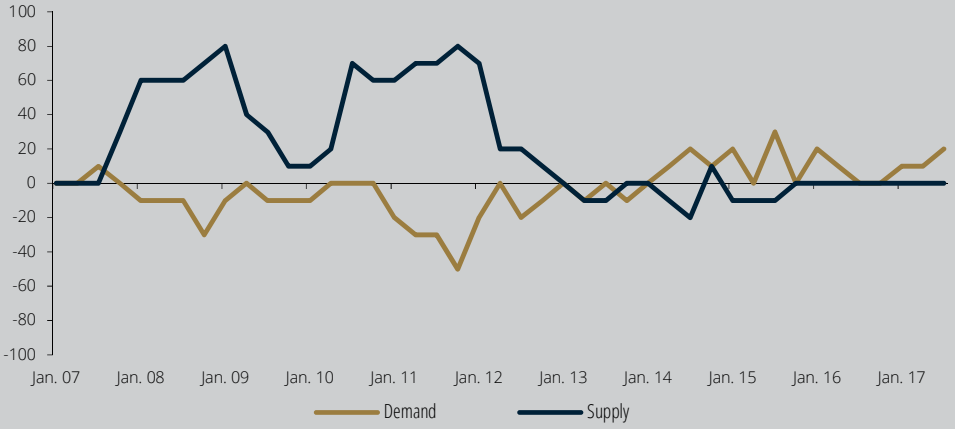
To sum up, recent developments in both CCR consultations and the percentage of new relationships established following such consultations seem to be in line with the gradual normalisation of demand and supply in the loan market for enterprises and are consistent with Bank Lending Survey results. According to the latter, demand for loans by enterprises has been somewhat buoyant as of 2015 and credit standards have remained relatively stable, in contrast to developments reported in surveys conducted in 2011 and 2012 (Chart C.3.7).

Chart C.3.6 • Consultations that originated a new credit relationship and companies that obtained credit 12 month after being consulted | 3 month moving average, in percentage



Source: Banco de Portugal.

Chart C.3.7 • Credit's demand and supply | Diffusion index in percentage



Source: Banco de Portugal.

Notes: The diffusion index varies between -100 and 100. Values of less (more) than zero means a loosening (tightening) of the criteria in the case of the credit supply and a decrease (increase) in the case of credit demand.

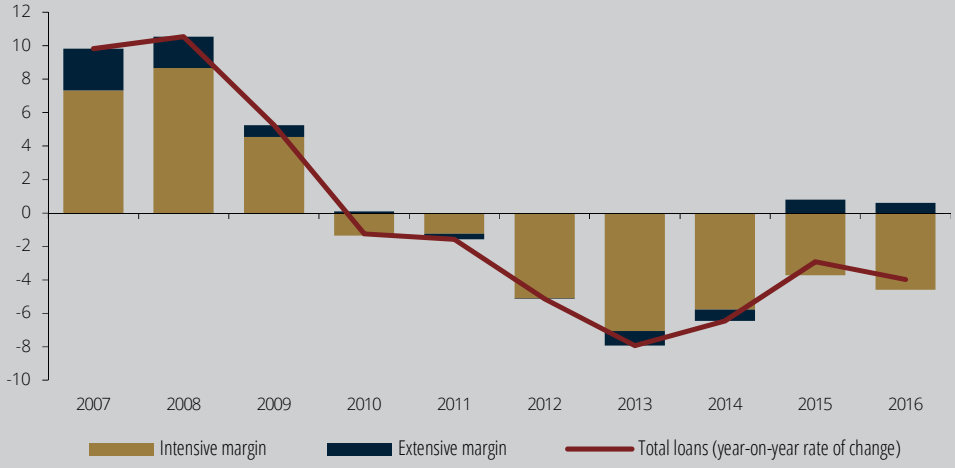
Box 4 | Developments in loans granted to non-financial corporations by resident credit institutions: extensive margin vs. intensive margin

As of end-2010 the stock of loans granted by resident credit institutions to non-financial corporations has been decreasing. In a given period, total loans may vary as a result of changes in the amount of loans granted to enterprises which, in the previous period, had already established lending relationships with a financial institution (intensive margin), or via the creation and destruction of relationships (extensive margin). As such, it should be clearly understood to what extent the contraction in loans granted to enterprises in the past few years stems from each of these margins, considering the different implications in terms of access to funding and adjustments to the indebtedness of Portuguese enterprises.

This analysis looks into information available at Banco de Portugal's Central Credit Register (CCR)[13] between 2006 and 2016. It examines outstanding loans granted to private non-financial corporations with regular, overdue or renegotiated credit. An enterprise's exit of the credit market in year *t* is defined by its absence from the CCR in that year.[14] An enterprise's entry into the market is identified as the first year when it reported to the CCR or its year of re-entry.

Chart C.4.1 illustrates changes in total loans granted by resident credit institutions to non-financial corporations and contributions of the intensive and extensive margins to such changes. The extensive margin is calculated as the difference between the outstanding loans granted to enterprises entering the market and the outstanding loans to enterprises exiting the credit market. During the period under review, the year-on-year rate of change in total loans is mainly determined by developments in the intensive margin. In turn, the extensive margin, although negligible, made positive contributions in 2015 and 2016, thus reversing the trend seen between 2011 and 2014.

Chart C.4.1 • Loans granted by resident financial institutions to non-financial corporations | Year-on-year rate of change – intensive margin and extensive margin contributions, percentage and percentage points



Source: Banco de Portugal.

Note: The annual rate of change is based on firm-level average oustanding amount.

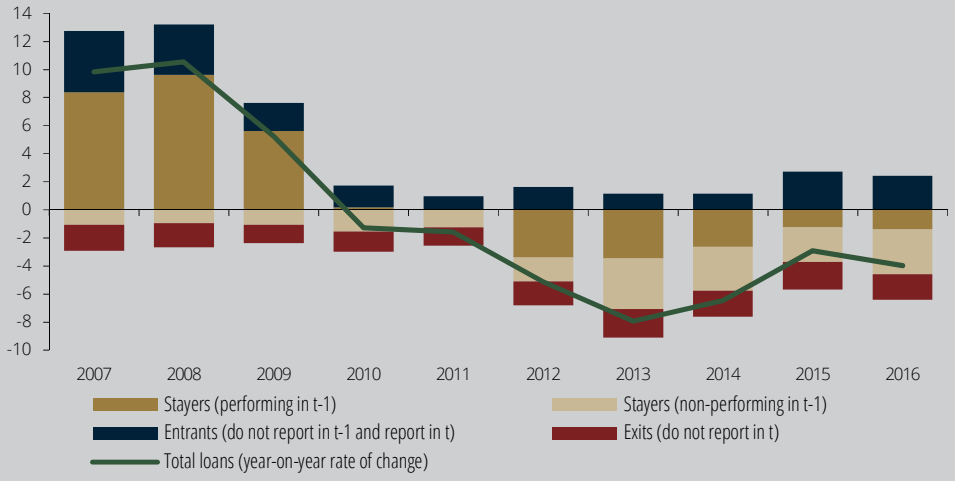
Chart C.4.2 refers separately to the contributions of enterprises' entries and exits to changes in total loans. Furthermore, in the case of enterprises that remained in the market, contributions of non-performing enterprises are separated from those with a regular credit situation in the previous period. The contribution of exiting enterprises was relatively constant during the period under review. In turn, the contribution of enterprises that entered the market, which are typically younger, decreased considerably between 2010 and 2014, recovering in 2015 and 2016. Turning to enterprises that remained in the market, the contribution made by performing enterprises has been negative only as of 2012 and, excluding that year, to a lesser extent than non-performing enterprises.

Developments in loans granted to enterprises have been characterised by some heterogeneity across sectors of activity and enterprises' size classes. To assess the extent to which this extends to the two margins under review, Charts C.4.3 and C.4.4 show the contributions of the intensive and extensive margins to loan growth broken down by sector of activity and size class.

As of 2010 the construction and real estate activities sectors made a greater contribution to the reduction in loans granted to enterprises that remained in the credit market (Chart C.4.3). By size class, the decrease in loans stemming from developments in the intensive margin was mainly due to smaller enterprises. In cumulative terms, between 2009 and 2016 microenterprises contributed to approximately 44% of this decrease, followed by small enterprises, with a 31% contribution.

Chart C.4.4 shows contributions of the extensive margin by sector of activity and size class, and makes it possible, to a certain extent, to assess the relocation of loans granted to non-financial corporations by resident credit institutions. Between 2011 and 2014, the contribution of the extensive margin was negative, to return in 2015 and 2016 to positive territory. The breakdown

Chart C.4.2 • Loans granted by resident financial institutions to non-financial corporations by firms' dynamics in the loan market | Year-on-year rate of change and contributions, percentage and percentage points



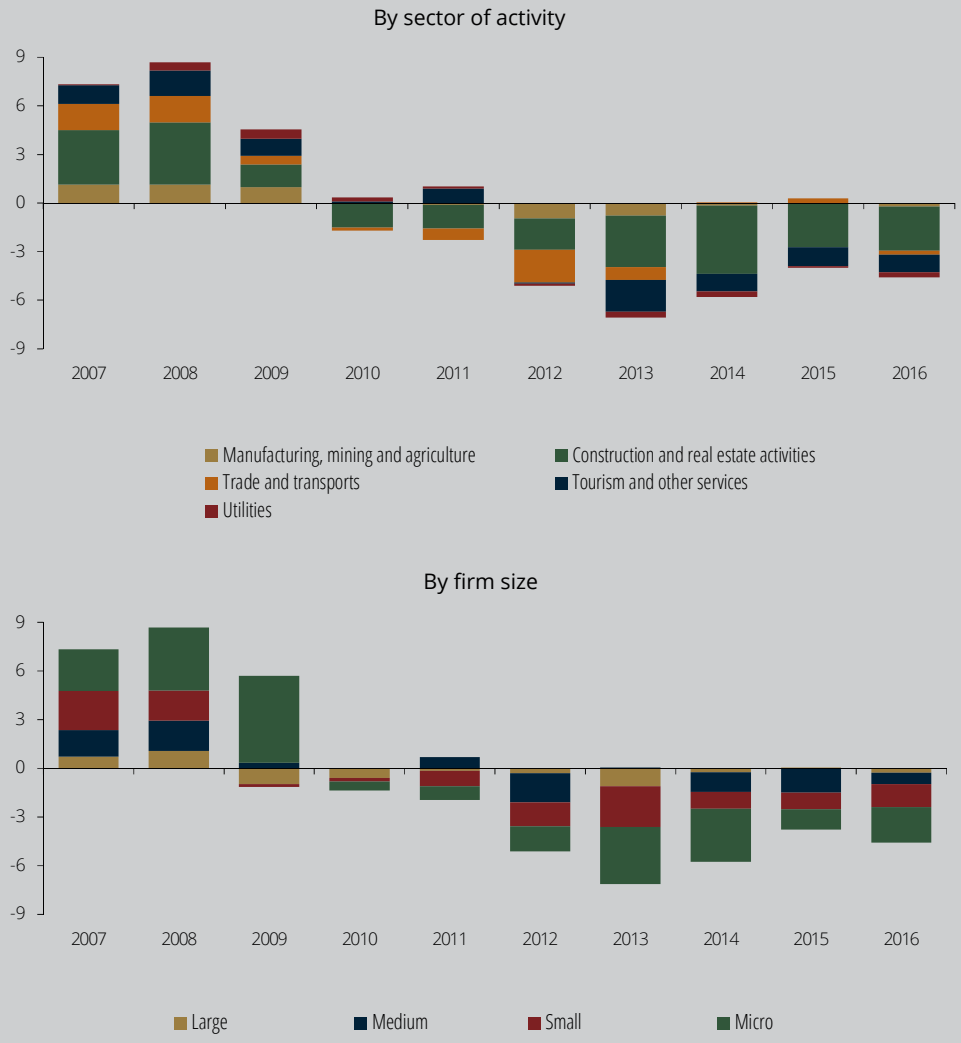
Source: Banco de Portugal.

Notes: The annual rate of change is based on firm-level average oustanding amount.

by sector of activity underlines the negative contribution made by construction and real estate activities since 2010, as well as the recovery of enterprises in the tourism and other services activities sector in the last two years under review. By size class, microenterprises posted the largest decreases in 2013 and 2014. However, together with small enterprises, they contributed the most to the upturn seen in 2015 and 2016.

To sum up, the reduction as of 2010 in total loans granted by resident financial institutions to enterprises chiefly resulted from the performance of loans granted to enterprises that remained in the market, most notably given the negative contribution of loans of non-performing enterprises. At the same time, in 2015 and 2016 the contribution to the increase in loans made by

Chart C.4.3 • Loans granted by resident financial institutions to non-financial corporations – intensive margin | Contributions for the year-on-year rate of change, percentage points

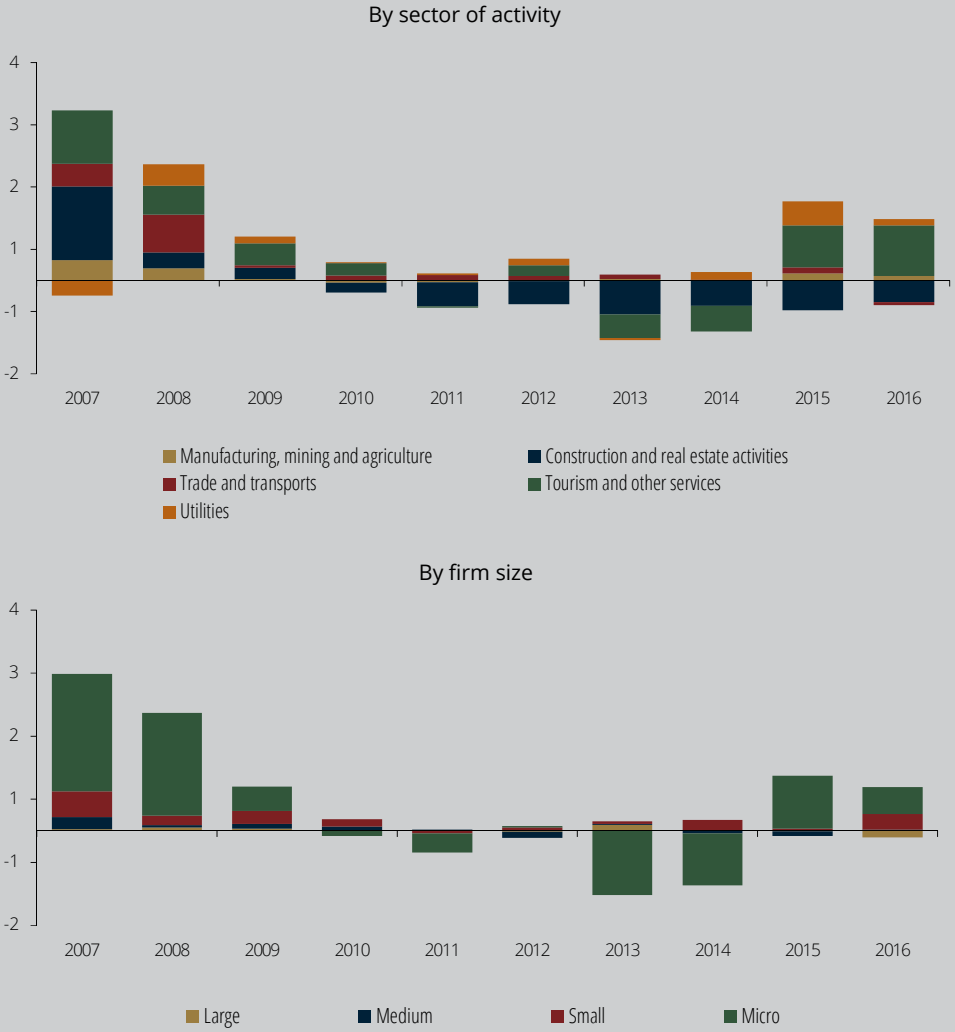


Source: Banco de Portugal.

Notes: The annual rate of change is based on firm-level average oustanding amount.

enterprises that established new lending relationships with resident financial institutions rose significantly, exceeding the negative contribution (in absolute terms) of enterprises exiting the market. As such, these developments suggest that the deleveraging process of enterprises is contributing to the steady reduction in outstanding loans granted by resident institutions and that a greater renewal is underway than during the economic and financial crisis for enterprises that borrowed from the resident financial sector.

Chart C.4.4 • Loans granted by resident financial institutions to non-financial corporations – extensive margin | Contributions for the year-on-year rate of change, percentage points



Source: Banco de Portugal.

Notes: The annual rate of change is based on firm-level average oustanding amount.

4. Fiscal policy and situation

The excessive deficit procedure was closed in June 2017

In June 2017, upon recommendation from the European Commission, the Council of the European Union decided to close the excessive deficit procedure concerning Portugal opened in 2009. Following this decision, the Portuguese fiscal situation will be analysed in accordance with the rules of the preventive arm of the Stability and Growth Pact.[15] It is important to note that the compliance with these rules is still stringent, in particular for countries with a debt ratio considerably above 60% of GDP, implying strict budgetary discipline.

In the first half of the year, the fiscal deficit stood significantly below that recorded in the same period of the previous year

In the first half of 2017, the fiscal deficit stood at 1.9% of GDP,[16] 1.2 pp less than in the same period of the previous year. This decline was a result of developments in primary expenditure and interest (-1.4 and -0.3 pp of GDP respectively) which, as a whole, more than offset the impact on the deficit of the decline in the ratio of revenue to GDP (0.6 pp). It is important to note that the risk remains of an upward revision of the fiscal deficit for the first quarter of 2017, given the uncertainty regarding the statistical treatment of the recapitalisation by the State of Caixa Geral de Depósitos (CGD) (to an amount of approximately 2.1% of annual GDP).[17]

Under the second notification of the Excessive Deficit Procedure (EDP), the Ministry of Finance kept unchanged the target for the fiscal deficit in 2017, at 1.5% of GDP. Excluding temporary measures,[18] this target corresponds to a reduction of 0.7 pp compared with 2016 (from 2.4% to 1.7%). Consequently, although the budget

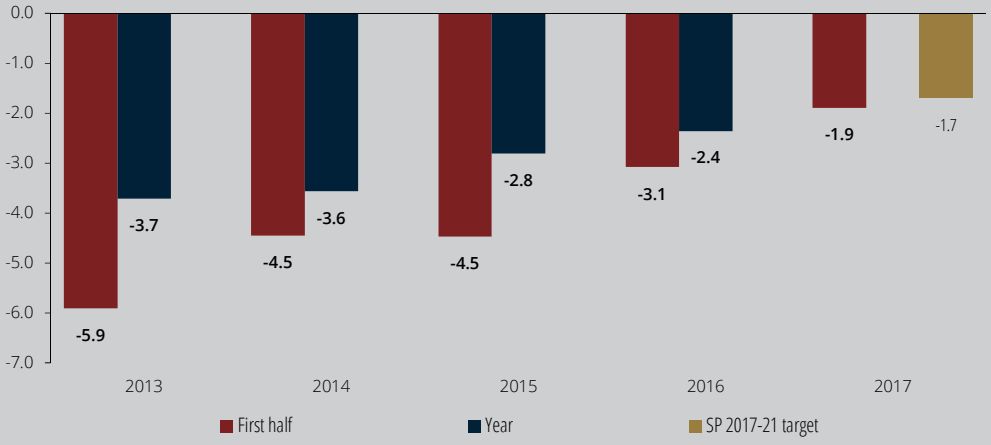


Chart 4.1 • General government budget balance | As a percentage of GDP

Sources: INE and Banco de Portugal.

Note: (a) The adjusted balance excludes the following one-off effects: in 2013, capital injection in Banif and the impact of the special scheme for the payment of tax arrears; in 2014, recording of the stock of debt of transportation corporations STCP and Carris, write-off of non-performing loans on the BPN Crédito balance sheet, equity increases in Efisa and Novo Banco; in 2015, equity increase in Efisa and in the corporations Carris and STCP, reclassification of loans to Caixa Imobiliária by shareholder Wolfpart and the resolution measure applied to Banif; in 2016 the sale of F-16, the temporary effect of PERES and the reimbursement of the prepaid margin; in 2017 the recovery of the BPP guarantee.

balance recorded in the first half of the year is above the annual target excluding temporary measures, the decline, in year-on-year terms, was more marked than expected for the year as a whole. Note that the budget balance typically improves considerably in the second half of the year in terms of its seasonal profile (Chart 4.1).

In 2017 several factors distort the comparison between the balance observed in the first half of the year and the annual balance vis-à-vis the pattern of previous years. These factors include the different payment profile of expenditure on wages and pensions, the frontloading of personal income tax refunds and the phased implementation of policy measures throughout 2016 and 2017.[19] A detailed analysis of the behaviour of different budgetary items, taking into account these effects, concludes that compliance with the target for the fiscal deficit is clearly within reach. However, given the particularly favourable macroeconomic environment, compliance with this target is not expected to ensure the structural adjustment required by the European fiscal rules currently in place.[20]

Tax and contributory revenue benefited from a buoyant economic activity, in spite of transitory effects

Total revenue increased by 2.2% in the first half of the year, boosted in particular by developments in indirect tax revenue and social contributions, against a background of acceleration in their macroeconomic bases. Indeed, taxes on production and imports increased by 5.5%, with VAT revenue growing by 4.2% despite the reduction in the VAT rate applied to some restaurant services in July 2016. Social contributions showed a similar performance (+5.1%). The revenue from these two major items is expected to exceed the figures considered in the SP 2017-21 (Table 4.1).

Table 4.1 • General government accounts: outturn in the first half of the year
| Percentage of GDP

	First half 2016	First half 2017	y-o-y (%)	Memo: official forecast [a]	
				2017	y-o-y (%) [b]
Total revenue	40.5	39.9	2.2	43.3	3.7
Current revenue	40.2	39.6	2.0	42.6	3.1
Tax and contributory revenue	34.5	33.9	1.9	36.7	2.9
Taxes on income and wealth	8.7	7.7	-8.4	10.1	1.0
Taxes on production and imports	14.4	14.6	5.5	14.8	3.5
Social contributions	11.5	11.6	5.1	11.8	3.9
Other current revenue	5.7	5.7	3.0	6.0	4.5
Capital revenue	0.3	0.4	36.4	0.7	58.5
Total expenditure	43.6	41.8	-0.5	44.8	2.6
Current expenditure	42.0	40.3	-0.5	42.4	1.3
Social payments	18.1	17.2	-1.3	18.7	1.4
Compensation of employees	11.7	11.3	0.7	11.1	1.4
Intermediate consumption	5.2	5.1	1.1	5.6	2.5
Subsidies	0.4	0.4	-6.1	0.5	7.6
Interest	4.1	3.8	-4.1	4.2	2.2
Other current expenditure	2.4	2.4	2.7	2.3	-5.2
Capital expenditure	1.6	1.6	1.1	2.4	30.4
Gross fixed capital formation	1.3	1.3	1.2	2.0	39.4
Other capital expenditure	0.3	0.3	0.4	0.4	0.1
Overall balance	-3.1	-1.9	–	-1.5	–
Memo:					
Primary current expenditure	*37.9*	*36.5*	*-0.2*	*38.2*	*1.2*

Sources: INE, Finance Ministry and Banco de Portugal.

Note: (a) Official estimate underlying the Stability Programme for 2017-21. (b) These growth rates consider the SP 2017-21 nominal values and the 2016 account, as released by INE in the second EDP notification of 2017.

By contrast, the revenue from taxes on income and wealth declined substantially in the first half of the year (-8.4%), mainly due to the different payment profile for personal income tax refunds. Excluding this effect, revenue from these taxes would have increased by 5.6%, benefiting from the strong increase in corporate income tax revenue (+19.2%). Note that the official estimate adjusted for the impact of the special programme for the settlement of overdue taxes and social contributions (PERES) points to 2.9% growth of these taxes. Even considering that the gradual elimination of the PIT surcharge will have a larger impact in the second half of the year, the estimate in the SP 2017-21 for total taxes on income and wealth is thus clearly attainable, as confirmed by public accounts figures up to August.

In the first half of the year, other current revenue grew by 3%, boosted by developments in sales (+2.3%) and dividends (+47.1%), while interest received by the general government remained on a downward trend (-35.9%). Regarding capital revenue, which accounts for less than 1% of total revenue, growth (+36.4%) resulted mainly from the recovery of part of the guarantee granted by the State, which was executed at the time of the resolution of Banco Privado Português (BPP).

Primary current expenditure, adjusted for changes in the intra-annual profile in 2017, increased above the official forecast for the year as a whole

The analysis of developments in primary current expenditure in the first half of 2017 has to take into account the change in the payment profile of wages and pensions[21] which, although neutral in annual terms, has a negative impact of around 3.6 pp on the growth rate of each of these items in the first semester. Adjusted for this effect, primary current expenditure would have grown by around 2.1% in the first half of the year, clearly above expectations for the year as a whole (+1.2%). By contrast, the gradual reinstatement of wages over the course of 2016 will contribute to a slowdown in expenditure growth in the second half of the year, which is expected to be only partly offset by developments in pensions, whose growth rate will tend to accelerate owing to the extraordinary increase in August of this year.

Compensation of employees adjusted for the different payment profile of the Christmas bonuses grew by around 4.2% in the first semester. Part of these developments arise from the volume effect, given that the number of public employees increased by 1.1%, but the most significant explanatory factor was the increase in average wages, more specifically owing to the base effect associated with the gradual reinstatement of wages over the course of 2016. Even taking into account the deceleration in the growth rate of this item along 2017, due to the unwinding of this effect, compensation of employees is expected to stand above budgeted.

As regards social payments, the growth rate adjusted for changes in the payment profile of pensions stood at around 1.5% in the first half of the year, close to the official projection for the year as a whole (+1.4%). Adjusted social payments in cash increased by around 0.8%. In particular, expenditure on unemployment benefits declined considerably (-12.7%), against a background of improvements in labour market conditions. In turn, social benefits in kind grew markedly (+4.6%).

Intermediate consumption grew by 1.1% in the first half of the year, below the official forecast for the year as a whole (+2.5%). However, the greater incidence of the freezing of spending appropriations on items associated with the acquisition of goods and services,[22] compared with other expenditure components, increases uncertainty regarding developments in intermediate consumption until the end of the year. By contrast, other current expenditure grew above expectations (+2.7%, compared with -5.2%), but typically shows very volatile intra-annual developments.

As regards capital expenditure, investment only increased by 1.2%, clearly in contrast to the very significant growth considered in the SP 2017-21 (+39.4%).[23]

Interest expenditure declined in the first half of the year, against a favourable background in the sovereign debt market

Interest expenditure declined by 4.1% in the first half of the year, in contrast to the 2.2% increase implied in the annual official estimate. In this context, similarly to previous years, savings in interest expenditure will likely materialise in the year as a whole, compared with the budget. Interest rates on Treasury securities placed in the market throughout the first half of 2017 followed a declining trend, which continued in the third quarter of 2017, benefiting from the rather favourable behaviour of the sovereign debt market from April 2017 onwards (Charts 4.2 and 4.3), as mentioned in Chapter 3. The strategy of early repayment of the IMF loan, which continued this year (with payments in February, July and August amounting to a total of €5 billion) has also contributed to the decline in interest expenditure. Consequently, the amount of outstanding debt to the IMF with a higher interest rate, declined to around €5.6 billion, which, according to the Portuguese Treasury and Government Debt Agency (IGCP), will be redeemed until 2019.

The increase in the public debt ratio in the first half of the year is expected to be reversed in the second half of the year

At the end of the first semester, the public debt to GDP ratio stood at 132.1%, compared with 130.2% at the end of 2016. However, excluding central government deposits, the increase in the debt ratio during this period was considerably more moderate (+0.7 pp).[24] While the primary surplus and the positive differential between nominal GDP growth and the average interest rate on public debt contributed to a decline of 1.4 pp in the debt ratio, the deficit-debt adjustments, excluding the effect of changes in deposits, increased the debt as a percentage of GDP by 2.1 pp. Particularly relevant are the impact of the capital injection by the State in CGD, under the recapitalisation process (+1.3 pp), and the difference between interest paid and interest accrued (+0.5 pp). Despite an increase in the debt ratio in the first half of the year, an analysis of the outlook for developments in the State's financing needs and sources, shown in Box 5 of this Issue of the *Economic Bulletin*, concludes that the conditions are set for a reduction of the debt ratio in 2017 as anticipated in the recent EDP notification (-2.7 pp).[25]

Chart 4.2 • Yields on issuances of treasury bills
| In percentage

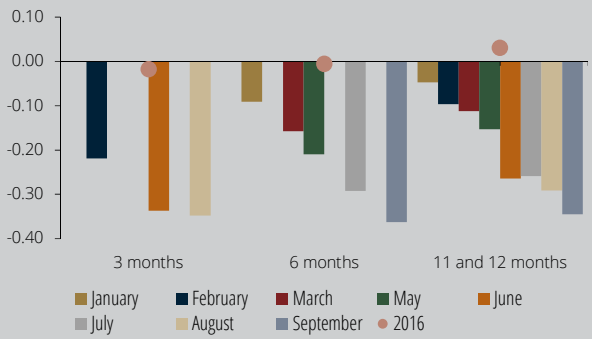
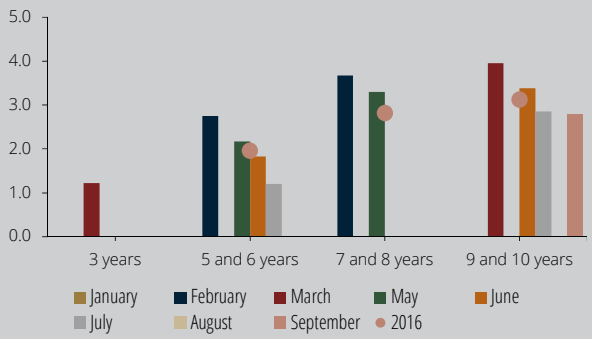


Chart 4.3 • Yields on issuances of treasury bonds
| In percentage



Source: IGCP.

Note: Chart 4.3 does not include information on issuances with maturities above 10 years.

Box 5 | Recent developments in public debt and financing strategy

The materialisation of a downward path in the debt ratio in the medium term is crucial to limit vulnerabilities in public finances, in case of adverse shocks in the future. This dynamics is also essential to comply with the debt rule that Member States committed to under the Stability and Growth Pact.[26] The latest official forecasts available, included in the recent EDP notification, project a debt ratio of 127.7% at the end of 2017, compared with 130.2% at the end of 2016. However, at the end of the first half of the year, the public debt ratio stood at around 132.1%. Taking into account the nominal GDP estimate, included in the EDP notification, public debt is expected to reach €244.1 billion at the end of 2017, €5.0 billion below the level seen at the end of the first semester. Thus, compliance with the official deadline assumes a reversal of the increasing trend in the debt stock observed in the first half of 2017 (Chart C.5.1).

Given the relevance of public debt developments, a careful assessment of the information released on an intra-annual basis is particularly important. This Box analyses developments in the debt ratio in the first half of 2017, taking into account the financing strategy of the Portuguese Republic, in order to identify temporary fluctuations in this stock and highlight its structural determinants. In this perspective, developments in central government deposits and the semester profile of the State's main financing needs are particularly relevant.

Regarding developments in deposits, the reduction expected to take place until the end of this year[27] may contribute significantly to debt reduction in the second half of the year, in contrast to the increase in the stock of central government deposits observed in the first half of the year (€+2.5 billion). In order to understand these developments, it should first be noted that the accumulation of deposits that took place in 2016 to pre-finance the CGD recapitalisation was not reversed in the first half of 2017. In addition, under normal market conditions, the periods when significant medium and long-term debt repayments are carried out coincided with the reduction in the stock of deposits (Chart C.5.2), as a result of the strategy to pre-finance these repayments.[28] Thus, the repayment of the Treasury bond 4.35% 16 Oct. 2017, with an outstanding amount of €6.1 billion, may imply a significant reduction in the amount of deposits in the second half of the year. Indeed, according to the IGCP's financing strategy released in the investor's presentation of 8 September, the repayment of medium and long-term securities is concentrated in the second half of the year, when this Treasury bond matures. The early repayments to the IMF are distributed evenly between the two semesters of the year and no additional repayments are foreseen until the end of 2017.

As regards the intra-annual profile of financing needs, firstly the State fiscal deficit in public accounts is expected to be clearly more concentrated in the first half of the year. Secondly, a significant share of other net acquisitions of financial assets is expected to have also taken place in the first half of the year, taking into account the above-mentioned injection of capital in CGD and, conversely, the redemptions of convertible capital instruments (CoCos) by a banking institution. Finally, in terms of medium and long-term securities issues, Treasury Bonds and Variable Income Treasury Bonds issued from January to June stood at €10.8 billion, compared with a forecast of only €6.4 billion in the second half of the year (Table C.5.1).

Uncertainty in the forecasts regarding public debt is always fairly high. However, the overall impact of the above-mentioned factors suggests that the reduction in debt implied in the official estimate for this year seems feasible. The materialisation of more robust GDP growth, as foreseen in this issue of the Economic Bulletin, might even allow for a reduction of the debt ratio above expectations.

Table C.5.1 • Main state's borrowing needs and sources in 2017 | Billions of €

	1H 2017	2H 2017 (P)	2017 (P)
Main financing needs:			
State deficit in public accounts	5.1	1.5	6.6
Other net acquisitions of financial assets	–	–	5.6
Medium and long term redemptions:			
Tbonds (PGB and MTN) redemptions	1.6	6.1	7.7
IMF redemptions	2.7	2.6	5.3
Main financing sources:			
Medium and long term issuance:			
T-bonds (PGB, MTN and OTRV) issuance	10.8	6.4	17.2
Retail debt (net)	1.4	1.1	2.5
Use of deposits	–	–	2.8

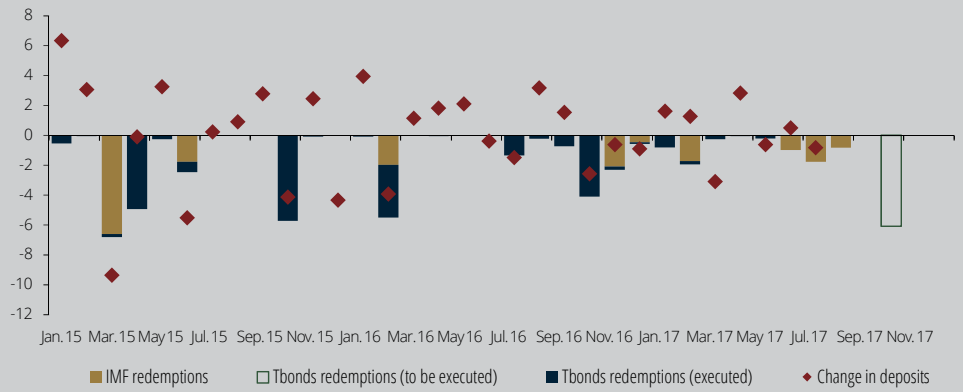
Sources: DGO and IGCP.

Notes: Based on the IGCP investors' presentation from 8 September 2017. The total of financial needs and sources does not match, as the table does not include changes in other flows, such as t-bills.

Chart C.5.1 • Change in the public debt stock and implicit level on the official estimate | In billions of €

Sources: Finance Ministry and Banco de Portugal.

Chart C.5.2 • Change in central government deposits and medium and long term debt redemptions | In billions of €



Sources: IGCP and Banco de Portugal.

5. Supply

Acceleration in activity in the first half of 2017

In the first half of 2017 Gross Value Added (GVA) at basic prices increased by 2.3% in real terms compared to the same period a year earlier, after a 0.8% growth in 2016. This increase continued to follow the upward trend initiated at the end of 2013, corresponding to the highest growth rate recorded since 2008. This development is generally consistent with the economic sentiment indicator (Chart 5.1). Notwithstanding, the level of GVA was still below the value recorded in 2008 by around 2.0%.

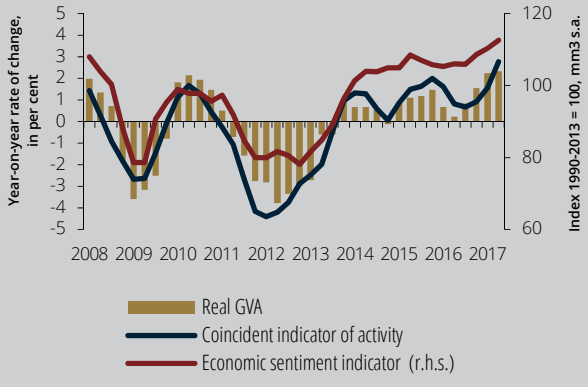
GVA in the services sector increased by 1.7% year on year in the first half of 2017, following a 1.1% rise in 2016. Activity in this sector maintained the growth path initiated in 2014, chiefly reflecting an increase of 3.6% in activity in the subsectors of trade and repair of motor vehicles and hotels and restaurants and of 3.2% in the subsectors of transportation and storage and information and communication (Chart 5.2). Positive developments in these sectors were both the result of favourable developments in tourism exports and more dynamic domestic demand.

Manufacturing recorded a 5% year on year increase in the first half of 2017, in contrast to a moderate 0.7% increase in 2016. This profile was overall consistent with the positive evolution of the industrial confidence indicator (Chart 5.3).

In the first half of 2017 activity in the construction sector increased by 7.5% year on year, after a 1.9% reduction in 2016. The trend observed in the first half of 2017 partly reflects the evolution of the number of tenders for public works and approved building permits (Chart 5.4). The number of tenders for public works increased by 76% year on year in the first half of 2017, after an increase of around 29% in 2016. The total number of permits granted grew by around 17% year on year in the first half of 2017 and by around 12% in 2016. However, in spite of this favourable trend, GVA in construction at the end of the first half of 2017 accounted for around 60% of the value recorded in 2008.

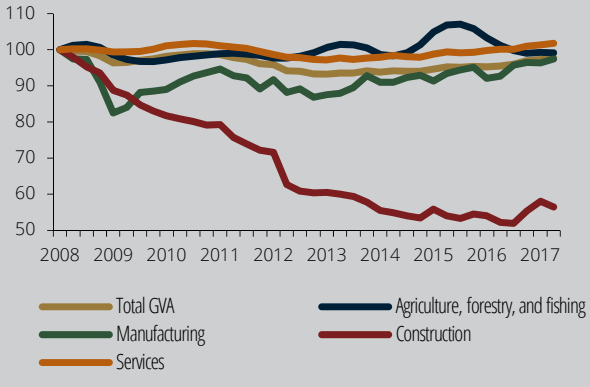
GVA in the agriculture, forestry and fishing sector maintained the negative dynamics recorded in 2016. In the first half of 2017 GVA in these activities declined by 3%, after a 5% reduction in 2016. In spite of its importance, this sector has a low weight in total GVA, i.e. around 2.1%.

Chart 5.1 • GVA, Coincident indicator of activity and economic sentiment indicator



Sources: European Comission, INE and Banco de Portugal.

Chart 5.2 • GVA by main sectors of activity | Index 2008Q1 =100



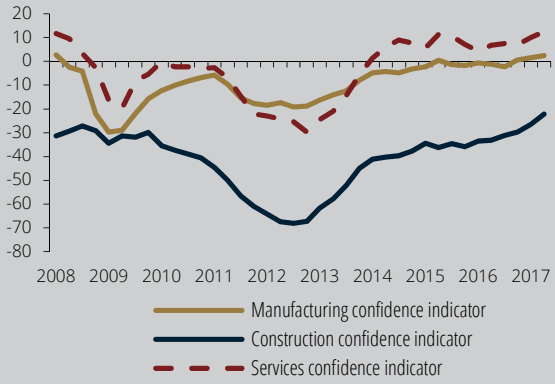
Source: INE.

Positive developments in all sectors of activity, excluding the agricultural sector, suggest a broadly based recovery of the Portuguese economy. This is confirmed by the low level of sectoral dispersion observed in the first two quarters of 2017, maintaining a dispersion level similar to that observed since 2015 and close to that of the pre-international financial crisis period (Chart 5.5).

Decline of the population and increase of the labour force

The downward trend of the resident population observed since 2011 continued into the first half of 2017 (0.2% year on year reduction) (Chart 5.6). The resident population declined across all age groups up to 44 years: in the 15-24 age group it declined by 0.6%, in the

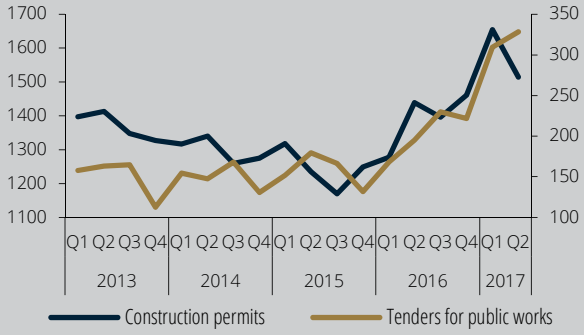
Chart 5.3 • Confidence indicators | Balances (quarterly means)



Source: European Comission.

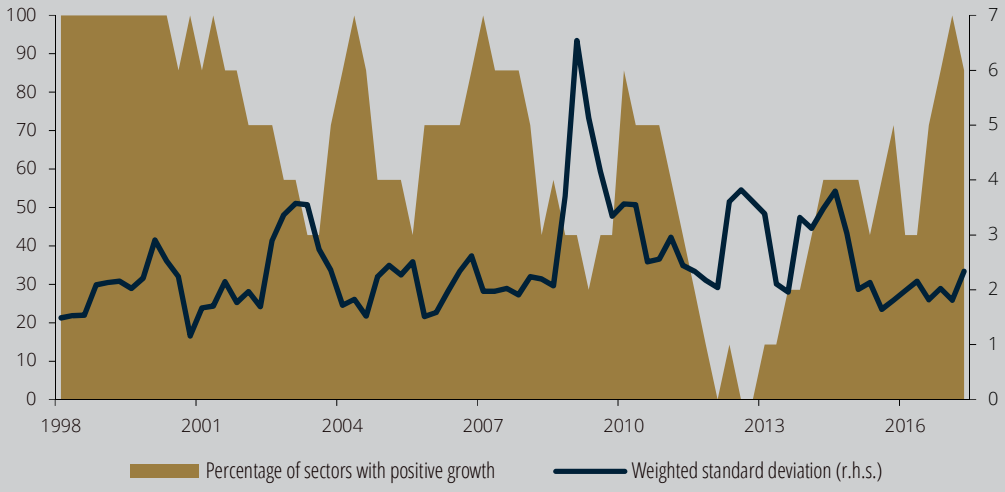
Note: Seasonally adjusted figures.

Chart 5.4 • Number of tenders for public works and construction permits



Sources: AECOPS and INE.

Chart 5.5 • Sectoral dispersion of economic growth



Source: INE (Banco de Portugal calculations).

Note: The standard deviation is computed based on the seven main sectors of the GVA excluding the agricultural sector.

25-34 age group by 2.7% and in the 35-44 age group by 1.5%. Conversely, the resident population increased by 0.4% in the 45-54 age group and by 1% in the 55-64 age group. The labour force grew by 0.9% year on year, after six successive years of decline. The increase in the labour force results from a year on year increase in the labour force in the 15-24, 45-54 and 55-64 age groups (0.15%, 1.2% and 5.9%, respectively). These three groups correspond to around 48% of the labour force. In the 25-34 and 35-44 age groups the labour force declined by 2.6% and 0.9% year on year, respectively (Chart 5.7). In cumulative terms since 2008 there was a substantial fall of the population and the labour force (Chart 5.6). Throughout this period, the resident population and the labour force decreased by approximately 267 and 332 thousand individuals, respectively. The decline of the activity rate throughout this period made a negative contribution to the evolution of per capita GVA in Portugal, contrary to the first half of 2017.

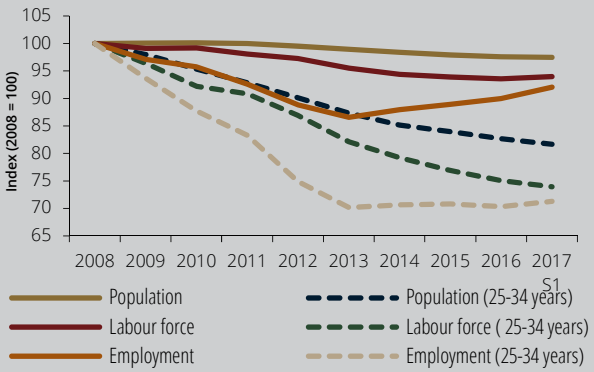
In addition to internal demography-related factors, this evolution cannot be decoupled from the recent dynamics of migration flows. According to Statistics Portugal's statistics, the decline of the resident population also resulted from negative net migration, which exceeded 8 thousand individuals in 2016. However, net migration had a less pronounced magnitude than in the past few years, particularly in the 2011-14 period, when it reached an average value of approximately 32 thousand individuals. The dynamics observed in 2016 reflected, on the one hand, a modest reduction in the flow of permanent emigrants compared to previous years (to around 38 thousand individuals) and on the other a flow of permanent immigrants of around 30 thousand individuals, similarly to 2015 (Chart 5.8). In spite of the decline in the flow of permanent emigrants, it was around five times higher than the level observed in 2007.

Positive developments in employment, which remained at historically low levels

Total employment increased by 3.3% in the first half of 2017, after an increase of 1.2% in 2016 (Table 5.1).

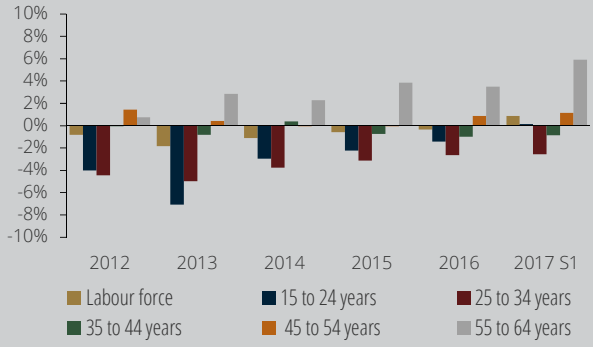
This evolution reflects the growth of employment (3.9%) and self-employment (1.4%). In spite of the upward trend in employment, its levels remained particularly low (close to 1998

Chart 5.6 • Population, labour force, employment - Total and age group 25 - 34 years | Index 2008 =100



Source: INE (Labour Force Survey).

Chart 5.7 • Labour force and labour force by age groups



Source: INE (Labour Force Survey).

employment levels), in the wake of an unprecedented fall observed between 2008 and 2013, which, according to quarterly national accounts, corresponded to around 630 thousand individuals (Chart 5.8). With respect to government employment, according to information from the Directorate General for Administration and Public Employment, the number of civil servants increased by 1.1% year on year in the first half of 2017.

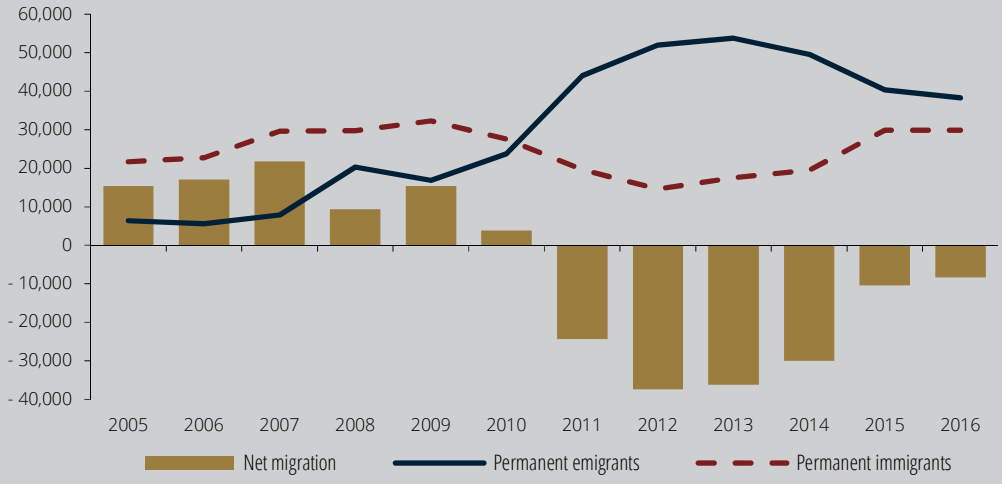
Table 5.1 • Population, employment and unemployment | Annual rate of change in percentage, except when otherwise stated

	Thousands of individuals in 2016	Years			Semesters		
		2014	2015	2016	S1 2016	S2 2016	S1 2017
Population	10,306	-0.6	-0.5	-0.3	-0.3	-0.3	-0.2
Population 25-34 years	1,180	-3.6	-2.8	-2.5	-2.7	-2.4	-2.7
Labour force	5,178	-1.1	-0.6	-0.3	-0.7	0.1	0.9
Labour force 25-34 years	1,055	-3.8	-3.1	-2.7	-2.9	-2.4	-2.6
Participation rate 15-64 years (in % of population)		73.2	73.4	73.7	73.4	74.0	74.2
Total employment	4,605	1.6	1.1	1.2	0.6	1.8	3.3
Employees	3,787	4.4	2.8	2.0	1.7	2.4	4.0
Self-employment	789	-8.3	-5.7	-3.2	-5.0	-1.3	1.4
Total unemployment	573	-15.1	-11.0	-11.4	-10.0	-12.8	-17.9
Unemployment rate (in % of the labour force)		13.9	12.4	11.1	11.6	10.5	9.5
Unemployment rate 25-34 years (in % of the labour force)		15.5	13.1	12.5	13.4	11.6	10.5
Long-term unemployment (in % of total unemployment)		66.0	63.9	62.5	62.0	63.1	59.5
Discouraged inactives (in % of the labour force)		5.1	4.8	4.4	4.3	4.5	

Source: INE.

Notes: Long-term unemployment includes the unemployed individuals that have been actively seeking employment for 12 months or more. The discouraged inactives include the inactive individuals who were available for work but had not looked for a job during the period.

Chart 5.8 • Net migration, permanent emigrants and immigrants



Source: INE (Labour Force Survey).

In the first half of 2017 employment in the higher or secondary education segment increased by 4.1% and 6.2% year on year, respectively, while employment in the basic education segment remained virtually stable (Chart 5.9).

Employment in the different age groups continued the upward trend of the past few years. The highest growth rates in the first half of 2017 were recorded in the 15-24 and 55-64 age groups (Chart 5.10).

In line with the current recovery of the Portuguese economy, productivity per worker fell further in the first half of 2017. This fall combines a negative contribution from the evolution of productivity within each sector of activity and a slightly positive contribution from the reallocation of workers across sectors (Box 6).

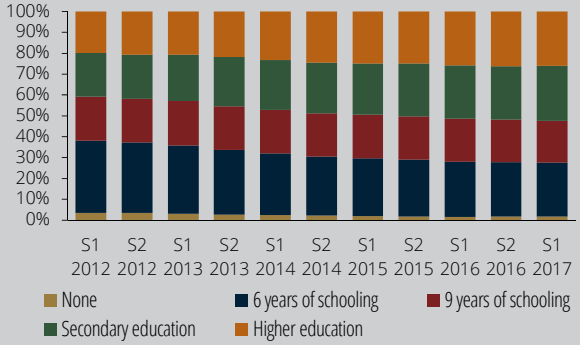
Improved labour market conditions in a context of moderate growth in both economic activity and wages in the first half of 2017

Labour market developments in the first half of 2017 continued to record a rise in employment and a significant decline in the unemployment rate, maintaining the improvement initiated in the second quarter of 2013, still in a context of wage moderation. According to data released by the Ministry of Solidarity, Employment and Social Security, in the first half of 2017 average wages declared to Social Security grew by 1.3% compared to the same period a year earlier. This materialised in a slight deceleration from the previous year, when 1.6% growth was recorded. This dynamics of wages declared to Social Security is likely associated to a rise in the minimum wage at the beginning of the year and higher pressures in the labour market, stemming from a significant decrease in unemployment.

The unemployment rate declined, while the weight of long-term unemployment remained at high levels

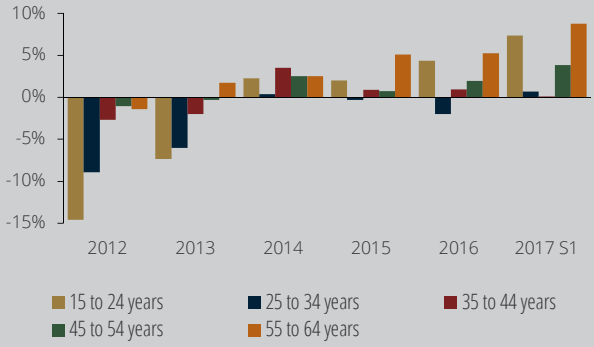
The total number of unemployed in the first half of 2017 decreased by 17.9% year on year, after an 11.4% fall in 2016 (Table 5.1). The unemployment rate stood at 9.5% in the first half of 2017, maintaining the downward trend initiated in 2013 and moving closer to the level observed in

Chart 5.9 • Employment by level of education



Source: INE (Labour Force Survey).

Chart 5.10 • Employment by age group



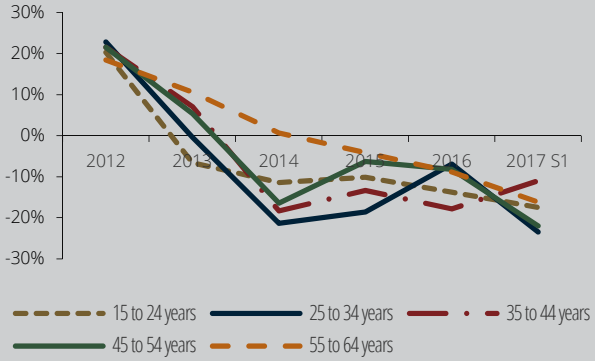
Source: INE (Labour Force Survey).

2009. In the first half of 2017 the year on year reduction in the total number of unemployed was significant in all age groups, but particularly in the 25-34 and 45-54 groups (Chart 5.11). The share of unemployed receiving unemployment benefits stood at 27% in the first half of 2017, i.e. declining slightly from 2016 (Chart 5.12).

The Statistics Portugal's labour underutilisation indicator joins unemployed population, underemployed part-time workers, inactive persons seeking work but not available for work, and inactive persons available for work but not seeking work. This indicator shows that the labour underutilisation rate has been declining since 2013. In the second quarter of 2017 the labour underutilisation rate was 16.6%, i.e. the lowest value in the period under review (Chart 5.13).

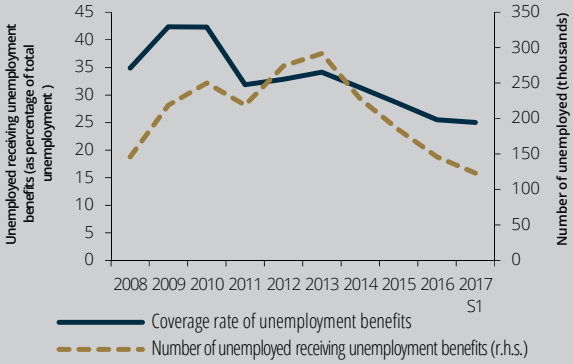
The number of discouraged workers included in the labour underutilisation indicator, i.e. individuals not actively seeking work but who are

Chart 5.11 • Unemployment by age group
| Year-on-year rate of change



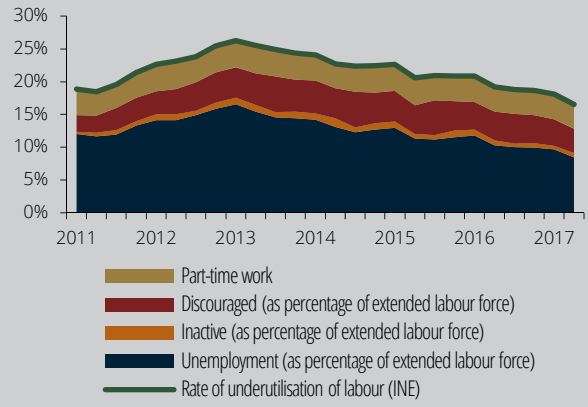
Source: INE (Labour Force Survey).

Chart 5.12 • Number of unemployed receiving unemployment benefits and coverage rate



Source: INE (Labour Force Survey).

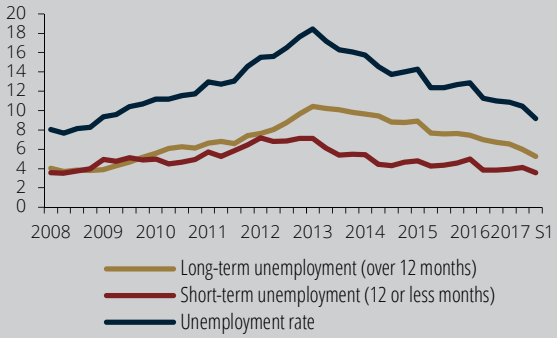
Chart 5.13 • Rate of underutilisation of labour
| Quarterly evolution



Source: INE (Labour Force Survey).

Note: Rate of underutilisation (%) = (Under-utilised labour/Extended labour force) x100. The extended labour force corresponds to the labour force including inactive workers looking for work but not available for work, as well as inactive workers available for work but who are not seeking work.

Chart 5.14 • Unemployment rate – duration



Source: INE (Labour Force Survey).

available for work, accounted for around 4.3% of the labour force in the first half of 2017, compared to 4.8% in 2016. These inactive persons cover a total of approximately 212 thousand individuals.

One of the most negative aspects of developments in the Portuguese labour market in the past few years has been the high level of long-term unemployment, which caused a sharp depreciation of human capital, having an adverse impact on the economy's potential growth. Within this scope, the number of unemployed seeking work for more than 12 months fell by 21.4% in the first half of 2017 (13.3% fall in 2016). Nevertheless, the weight of long-term unemployment in total unemployment remained at a high level (59.5% in the first half of 2017, corresponding to a total of close to 292 thousand individuals), with the added complication of covering especially very long-term unemployed, i.e. those seeking work for more than 24 months (around 73% of long-term unemployment). In the same vein, in the first half of 2017 the number of unemployed seeking work for less than 12 months fell by 12.1% year on year (7.9% decline in 2016) (Chart 5.14). The weight of these short-term unemployed in the total labour force currently stands at levels close to those observed in the years prior to the international financial crisis.

Moderate job creation and sharp decline in job destruction

The dynamics of the labour market can be broken down into the flows between its three statuses: employment, unemployment and inactivity (Chart 5.15). The analysis of these quarterly average flows illustrates an improved labour market situation over the first half of 2017, compared with the evolution seen in the same period a year earlier. In fact, compared to the first half of 2016 there was an increase in net average employment flows. The net average flow of unemployment continued to be negative, although lower than seen in 2016. This reflected especially a reduction of flows from employment to unemployment and an increase in transitions from unemployment to employment. Over the first two quarters of 2017, changes across the

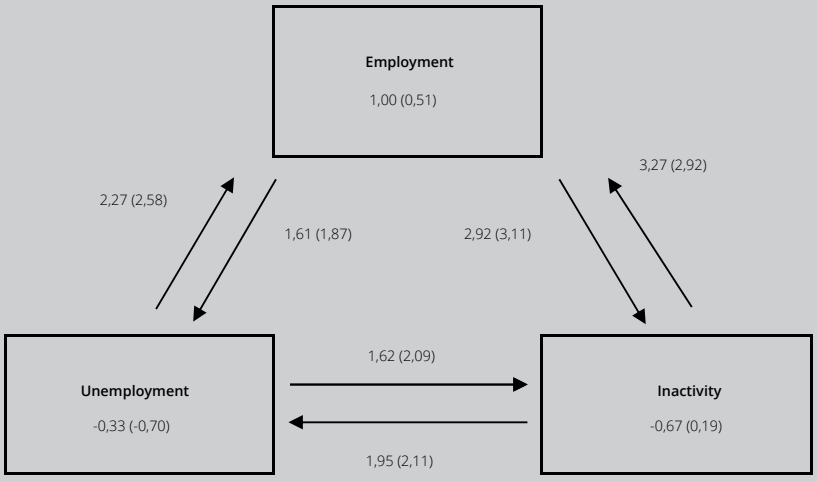


Chart 5.15 • Labour market flows in the first quarters of 2016 and 2017 (based on the average of quarterly flows)

| As a percentage of the labour force

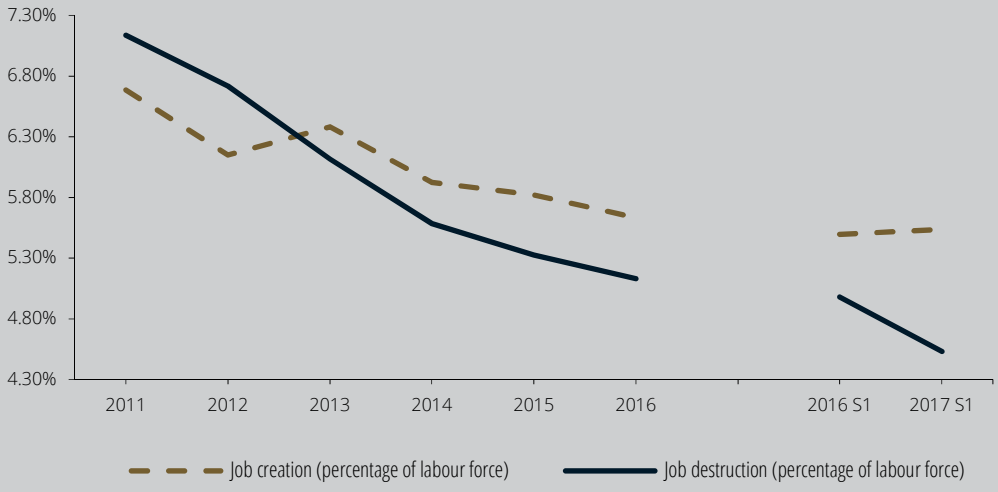
Source: INE and Banco de Portugal.

Note: The flows are computed using the common component of the sample of quarters t and t-1 and the population weights of quarter t. Average values for 2016 and 2017 (first semester). Values for 2016 in parentheses.

different labour market statuses were equivalent, on average, to around 14% of the labour force, i.e. a value close to that recorded in the first half of 2016 (15%). The analysis of quarterly flows to employment also shows the high segmentation between the types of contract existing in the Portuguese labour market. Job creation relied especially on fixed-term contracts. In fact, of total transitions to employment originating in unemployment and inactivity recorded in the first half of 2017, only 15% involved open-ended contracts. However, the number of open-ended employment contracts grew by around 4.8% year on year in the first half of 2017 (0.9% in the first half of 2016) and the number of fixed-term contracts by around 0.1% (4.7% in the first half of 2016).

From 2011 onwards annual averages for job creation and job destruction as a percentage of the labour force showed a downward trend. However, the decline in annual average job creation has been evolving more slowly than the decline in annual average job destruction (Chart 5.16). In the first half of the year the increase in the net average flow of employment (job creation less job destruction) was chiefly a consequence of lower job destruction (Chart 5.16). Annual average job creation as a percentage of the labour force was 5.5% in the first half of 2017, similar to the value of the first half of 2016. In turn, annual average job destruction as a percentage of the labour force was 4.5% in 2017, compared to 5.0% in the first half of 2016.

Chart 5.16 • Job creation and destruction (annual averages)



Source: INE (Labour Force Survey).

Note: Job creation refers to the average flows from unemployment and inactivity to employment, and job destruction to the average flows from employment to unemployment and inactivity. The chart is based on the average annual flows, except 2016 S1 and 2017 S1 which correspond to the average of flows in the first semester of 2016 and 2017, respectively.

Box 6 | The evolution of GVA, employment and productivity in the ongoing recovery: sectoral contributions

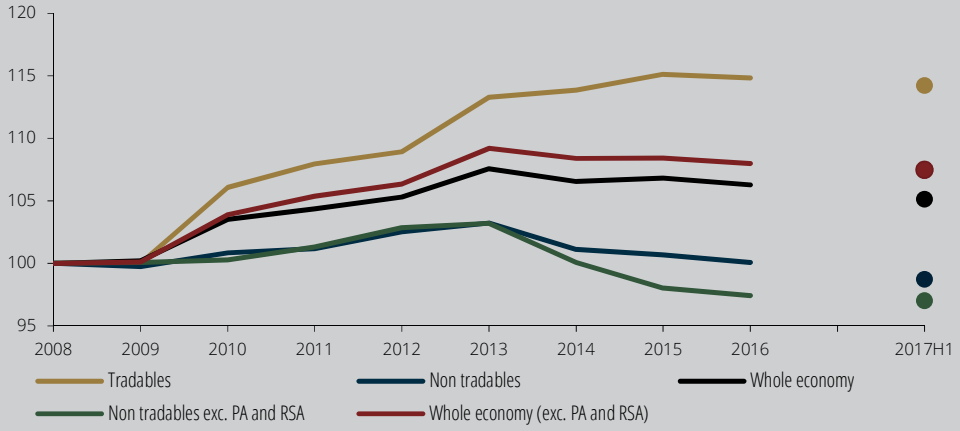
The fall in productivity per worker has been one of the salient features of the recovery in economic activity in Portugal that started in 2014. Following an upward trend between 2009 and 2013, productivity per worker in Portugal, as measured by the GVA-to-employment ratio, has been on a downward trend (Chart C.6.1.). [29] Between 2014 and the first half of 2017 GVA per worker declined by 2.3% (Table C.6.1). In aggregate terms, this evolution reflects employment growth above GVA growth (Charts C.6.2 and C.6.3). From 2014 to the first half of 2017 total employment and GVA grew by 8.1% and 5.6% respectively. Over this period there was a slight increase in productivity in the sector producing the so-called tradable goods and services and a fall in the non-tradable goods and services sector, particularly when excluding public administration and real estate activities.[30]

Table C.6.1 • Developments in GVA per employee in tradable and non-tradable sectors | Annual growth rate, in percentage

	2014	2015	2016	2017 S1	2014-2017 H1	Memo: 2009-2013
Whole economy						
GVA	0.4	1.6	1.1	2.3	5.6	-5.8
Employment	1.4	1.4	1.6	3.4	8.1	-12.4
GVA per employee	-1.0	0.3	-0.5	-1.1	-2.3	7.6
Tradable goods and services						
GVA	2.2	2.5	1.7	3.6	10.1	-1.4
Employment	1.6	1.4	2.0	4.0	9.2	-12.9
GVA per employee	0.5	1.1	-0.3	-0.4	0.8	13.3
Non tradable goods and services (exc. PA and RSA)						
GVA	-1.0	0.0	0.4	4.4	3.1	-16.2
Employment	2.1	2.1	1.1	4.4	9.7	-18.8
GVA per employee	-3.0	-2.1	-0.6	0.0	-6.0	3.2

Sources: Eurostat (Quarterly National Accounts) and Banco de Portugal calculations.

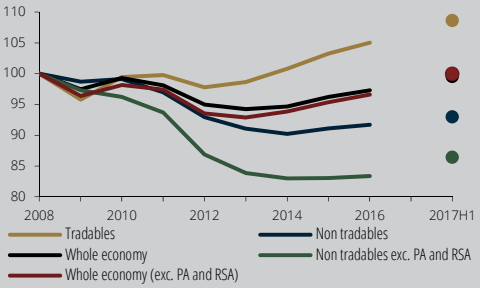
Chart C.6.1 • Developments in GVA per employee in Portugal | 2008=100



Sources: Eurostat (Quarterly National Accounts) and Banco de Portugal calculations.

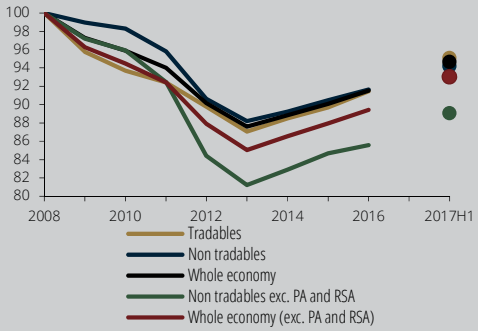
At sectoral level, there is a remarkable heterogeneity in the evolution of GVA, of employment and, as such, of productivity per worker since 2014 (Charts C.6.4, C.6.5 and C.6.6). The fact that productive factors are increasingly geared towards the sectors more exposed to international competition translated into significant employment flows in a number of sectors and was reflected in productivity. For example, in some sectors producing tradable goods and services, such as trade, transport, accommodation and food services, the considerable increase in GVA in this period was nevertheless lower than employment growth, leading to a fall in productivity. Conversely, the considerable productivity growth in agriculture chiefly mirrored a significant fall in employment in this sector (-8.3% between 2014 and the first half of 2017). In turn, in construction, after the strong adjustment of employment in the past decade and the first half of this decade,[31] the fall in productivity chiefly reflected the recovery of employment in the sector, in a scenario where GVA fell throughout the whole period, in spite of an increase early in 2017.

Chart C.6.2 • Developments in GVA in Portugal | 2008=100



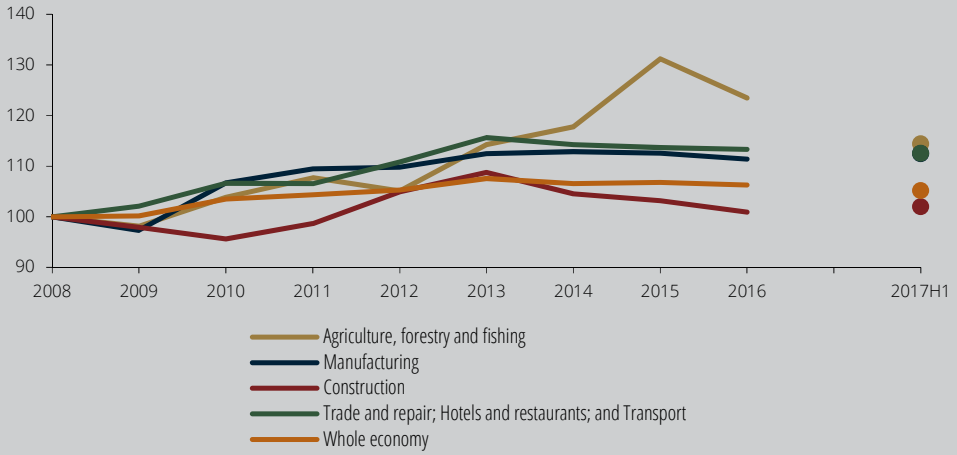
Sources: Eurostat (Quarterly National Accounts) and Banco de Portugal calculations.

Chart C.6.3 • Developments in employment | 2008=100



Sources: Eurostat (Quarterly National Accounts) and Banco de Portugal calculations.

Chart C.6.4 • Developments in GVA per employee in main sectors | 2008=100



Sources: Eurostat (Quarterly National Accounts) and Banco de Portugal calculations.

Productivity in the tradable goods and services sector grew by 0.8% between 2014 and the first half of 2017. However, this increase was largely accounted for by considerably growth in productivity in agriculture, forestry and fishing. In fact, excluding this sector, productivity in the tradable goods and services sector would have declined by 2.7%. In this context, there was a fall in productivity not only in trade, transport, accommodation and food services, but also in manufacturing (in spite of a recovery in the first half of 2017), as well as in other tradable services, such as information and communication services.

With regard to the non-tradable goods and services sector (excluding public administration and real estate activities), the sharp fall in productivity (6.0% between 2014 and the first half of 2017) reflected a considerable increase in employment, especially in non-tradable services. Particular reference should be made to the fall in productivity and GVA in construction (6.3% and 3.3% respectively). Productivity in the energy sector increased slightly, in the context of a recovery in the sector's GVA, particularly in the first half of 2017.

The change in GVA per worker can be broken down into inter-sectoral employment fluctuations on the one hand and inter-sectoral changes in GVA per worker on the other, considering that:

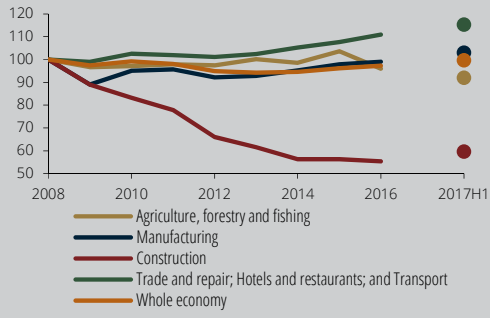
$$\frac{VAB}{E} = \sum_S \frac{VAB_i}{E_i}\frac{E_i}{E}$$

or in an equivalent manner:

$$\omega = \sum_{i=1}^{S} \omega_i s_i$$

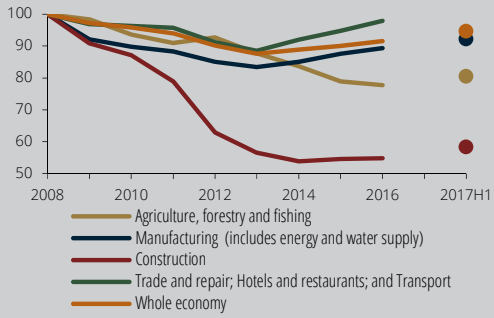
where E is total employment and E_i employment in sector $i=1...S$. This means that $\omega_i = \frac{VAB_i}{E_i}$ corresponds to GVA per worker in sector i and $s_i = \frac{E_i}{E}$ to the weight of employment in sector i in total employment. This equation clarifies that changes in GVA per worker correspond to the weighted average of changes in GVA per worker in all sectors, where weights are simply those of employment in each sector.

Chart C.6.5 • Developments in GVA in main sectors | 2008=100



Sources: Eurostat (Quarterly National Accounts) and Banco de Portugal calculations.

Chart C.6.6 • Developments in employment in main sectors | 2008=100



Sources: Eurostat (Quarterly National Accounts) and Banco de Portugal calculations.

Using the so-called Shapley decomposition, changes in GVA per worker can be broken down as follows:

$$\Delta\omega = \underbrace{\Delta\omega_1 \times \left(\frac{s_{1,t=0} + s_{1,t=1}}{2}\right) + \Delta\omega_2 \times \left(\frac{s_{2,t=0} + s_{2,t=1}}{2}\right) + \cdots + \Delta\omega_i \times \left(\frac{s_{i,t=0} + s_{i,t=1}}{2}\right)}_{\Delta\omega_W}$$

$$+ \underbrace{\sum_{i=1}^{S} \Delta s_i \times \left(\frac{\omega_{i,t=0} + \omega_{i,t=1}}{2}\right)}_{\Delta\omega_B}$$

The equation $\Delta\omega_i \times \left(\frac{s_{i,t=0}+s_{i,t=1}}{2}\right)$ reflects the change in GVA per worker attributable to the change in GVA per worker in sector i. In total, these changes amount to $\Delta\omega_W$, which accounts for the total change in GVA per worker net of reallocation effects. This change in GVA per worker occurs in each sector, assuming that employment weights remain unchanged. In turn, $\Delta\omega_B$ is the change attributable to inter-sectoral employment fluctuations. Worker movements from low-productivity sectors to high-productivity sectors raise GVA per worker, while worker movements from high-productivity sectors to low-productivity sectors reduce GVA per worker. If the latter term of the equation is negative, this means that inter-sectoral employment movements had an unfavourable impact on GVA per worker in the economy as a whole.

Table C.6.2 shows the contribution from the various sectors to the change in GVA per worker in the economy, excluding public administration and real estate activities. Between 2014 and the first half of 2017 the fall in GVA per worker observed at aggregate level seemed to result from declines in productivity within each sector. In turn, in this period the contribution from the inter-sectoral component was positive and of a similar magnitude to that observed in the 2009-13 period. This suggests that in the current period of economic recovery, as in the previous phase of economic recession, employment flows seem to be geared towards the sectors with higher productivity, notably those more exposed to international competition.

Table C.6.2 • Sector contributions for the growth of GVA per employee | Annual growth rate, in percentage, and contributions, in percentage points

	2014	2015	2016	2017H1	2014-2017H1	Memo: 2009-2013
Whole economy (exc. PA and RSA; change in percentage)	-0.7	0.0	-0.4	-0.5	-1.6	9.2
Contribution (in pp):						
Agriculture, forestry and fishing	0.1	0.3	-0.2	-0.2	0.0	0.4
Manufacturing	0.1	0.0	-0.2	0.2	0.0	2.4
Energy and water supply	0.1	0.1	-0.1	-0.1	0.1	-0.1
Trade, transport, hotels and restaurants	-0.4	-0.2	-0.1	-0.3	-1.0	5.3
Construction	-0.3	-0.1	-0.1	0.1	-0.4	0.6
Other services	-1.3	-1.0	-0.1	-0.1	-2.5	-1.3
Intra-sector contribution	-1.7	-0.8	-0.8	-0.5	-3.8	7.3
Inter-sector contribution	0.9	0.9	0.4	0.0	2.2	1.9

Fontes: Eurostat (Contas Nacionais Trimestrais) e cálculos do Banco de Portugal.

6. Demand

Faster GDP growth than in the euro area in the first half of 2017

In the first half of 2017 GDP grew by 2.9% year on year, accelerating from 2.0% growth in the second half of 2016 (Table 6.1). In quarterly terms this reflected a slight year-on-year acceleration from 2.8% in the first quarter to 3.0% in the second quarter. GDP growth in the first half of 2017 recorded a chain rate of change of 1.5%, against 1.4% in the second half of 2016. In the first half of 2017 GDP grew faster in Portugal than in the euro area, which had not occurred since the first half of 2010 (Chart 6.1).

The GDP growth rate was once again higher than that of the GVA (Chart 6.2). This difference continued to reflect the evolution of taxes less subsidies, which grew by 5.5% in the first half of 2017 vis-à-vis the same period in previous year, after a 4.6% increase in 2016.[32]

GDP developments reflect an acceleration in exports and investment

GDP developments in the first half of 2017 reflected an acceleration in exports and investment (Chart 6.3), extending the dynamics recorded in the second half of 2016.

Considering the contributions to the year-on-year rate of change in GDP net of import content, exports went up from a contribution of 1.0 p.p. in the second half of 2016 to 1.6 p.p. in the first half of 2017. In turn, investment, after a still negative contribution in 2016, made a positive contribution of 0.7 p.p. in the first half of 2017.

Table 6.1 • GDP and its main components | Year-on-year growth in percentage, unless otherwise stated

	As a % of GDP in 2016	2014	2015	2016	2016		2017	2016				2017	
					H1	H2	H1	Q1	Q2	Q3	Q4	Q1	Q2
GDP	100.0	0.9	1.8	1.5	1.1	2.0	2.9	1.2	1.0	1.8	2.2	2.8	3.0
Domestic demand	99.1	2.2	2.7	1.6	1.1	2.1	2.7	1.5	0.8	1.3	2.9	2.7	2.6
Private consumption	65.5	2.3	2.3	2.1	1.7	2.4	2.1	2.3	1.2	2.0	2.9	2.3	1.9
Public consumption	18.0	-0.5	1.3	0.6	1.1	0.1	-0.5	1.6	0.7	0.2	0.0	-0.3	-0.6
Investment	15.5	5.3	6.4	0.9	-1.3	3.2	8.6	-1.9	-0.8	0.1	6.3	7.9	9.3
GFCF	15.3	2.3	5.8	1.6	-0.7	3.9	10.1	-0.8	-0.6	1.7	6.1	9.9	10.3
Change in inventories [a]		0.5	0.2	-0.4	-0.1	-0.3	-0.4	-0.1	0.0	-0.3	0.0	-0.3	-0.1
Exports	39.9	4.3	6.1	4.1	2.7	5.5	8.9	3.6	1.7	4.9	6.0	9.7	8.1
Imports	39.0	7.8	8.5	4.1	2.7	5.5	8.0	4.2	1.3	3.7	7.3	9.1	7.0
Contribution of domestic demand [a]		2.2	2.8	1.6	1.1	2.2	2.8	1.5	0.8	1.3	3.0	2.8	2.7
Contribution of exports [a]		1.7	2.5	1.8	1.1	2.4	3.9	1.5	0.8	2.1	2.7	4.2	3.6
Contribution of imports [a]		-3.1	-3.6	-1.9	-1.2	-2.5	-3.7	-1.9	-0.6	-1.7	-3.4	-4.2	-3.3
Memo item:													
GDP – change over the previous period					0.6	1.4	1.5	0.3	0.2	0.9	0.8	0.9	0.3
Domestic demand (exc. change in inventories)	98.8	1.8	2.6	1.7	1.2	2.2	2.9	1.7	0.8	1.6	2.9	3.0	2.8

Sources: INE and Banco de Portugal calculations.

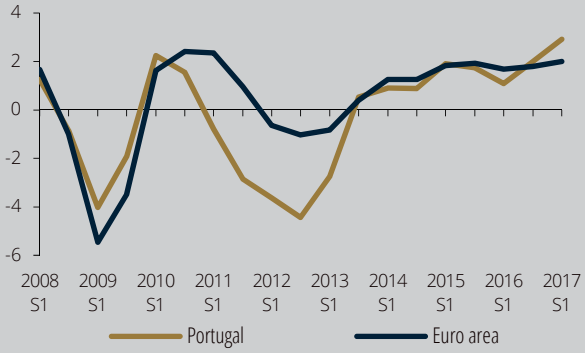
Note: (a) Contribute to real growth of GDP, in percentage points.

In the first half of 2017 private consumption recorded a year-on-year rate of change of 2.1%, compared to 2.4% in the second half of 2016. This increase in consumption occurred amid improved consumer confidence and higher disposable income. This evolution was due to an increase in employment and the maintenance of moderate growth of compensation per employee. The unemployment rate has remained on a downward trend, declining to 8.8% in the second quarter of 2017, compared to 11.1% in 2016.

Private consumption components showed an uneven evolution in the first half of 2017, with the durable goods component decelerating by 5.3 p.p. to 5.9%, and the non-durables component growing by 1.7%, from 1.6% in the second half of 2016 (Chart 6.4). The deceleration in the durable goods component reflects the evolution of purchases of cars for consumption purposes (Chart 6.5), given that the other durable goods accelerated from 5.3% in the second half of 2016 to 8.6% in the first half of 2017.

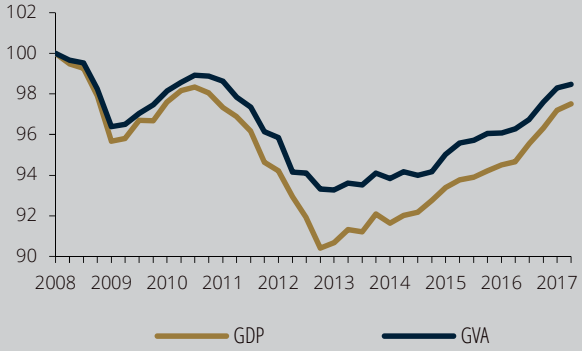
In the first half of 2017 GFCF grew by 10.1%, accelerating strongly from the second half of 2016 (3.9% growth). This stemmed from a broadly based acceleration of the different GFCF

Chart 6.1 • GDP growth in Portugal and in the Euro Area | Year-on-year biannual growth in percentage



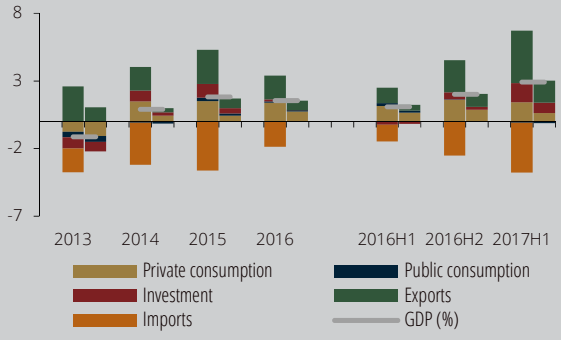
Sources: Eurostat, INE and Banco de Portugal calculations.

Chart 6.2 • Recent developments in GDP and GVA in Portugal | 2008 Q1=100



Sources: INE and Banco de Portugal calculations.

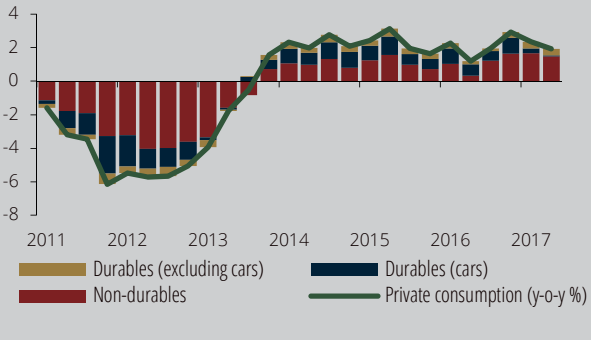
Chart 6.3 • Contributions to year-on-year growth of GDP | In percentage and percentage points



Sources: INE and Banco de Portugal calculations.

Notes: For each year, the left side bar refers to gross contributions from each GDP component and the right side bar refers to the corresponding net contributions. The demand aggregates net of imports are obtained by subtracting an estimate of the imports needed to meet each component. The calculation of import content was based on data for 2005. For more information, see the Box entitled 'The role of domestic demand and exports in economic activity developments in Portugal', in the June 2014 issue of the *Economic Bulletin*.

Chart 6.4 • Contributions to the private consumption real growth rate | Year-on-year growth, in percentage, and contributions, in percentage points; quarterly values

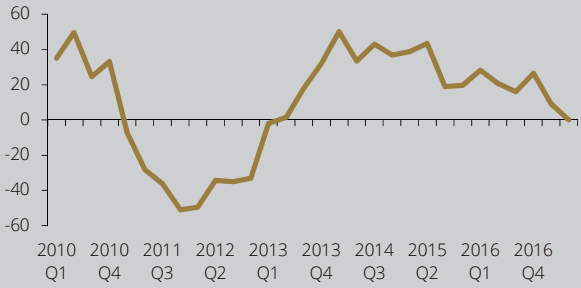


Sources: INE and Banco de Portugal calculations.

components, in an environment of improving financing conditions (Chapter 2), recovery in economic activity, fewer constraints to investment perceived by entrepreneurs, and overall greater confidence with regard to the outlook for the Portuguese economy (Box 7).

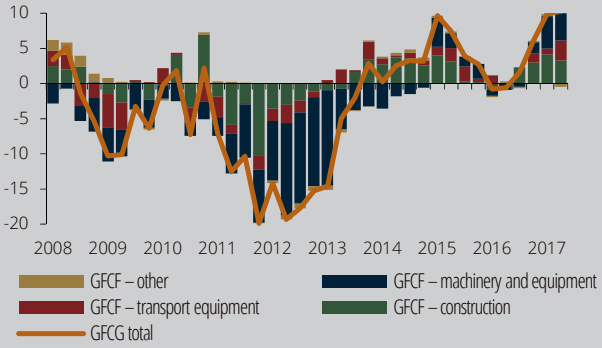
Firstly, the contribution from the construction component to total GFCF rose from 0.5 p.p. to 4.6 p.p. (Chart 6.6). This increase in construction occurred after a period of strong contraction in activity, as a result of the economic and financial crisis, which emphasised the structural adjustment in this sector. The dynamics seen early in 2017 seem to have been due to buoyant tourism activity and related real estate activities, as well as public works growth. These dynamics in construction were also reflected in the evolution of the sector's GVA (Chapter 5). In spite of said growth, the level of GFCF in construction was still quite lower than recorded before the financial crisis, with the value for the second quarter of 2017 accounting for a 40.2% fall from the value recorded in the first quarter of 2008 (Chart 6.7).

Chart 6.5 • Indicator of vehicules consumption | Year-on-year growth rate, in percentage



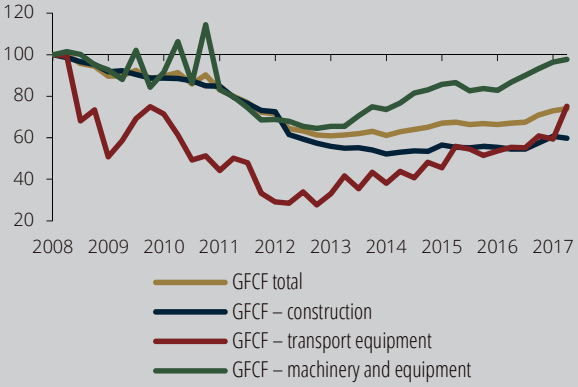
Source: ACAP.

Chart 6.6 • Contributions to year-on-year change in GFCF | Year-on-year change, in percentage and percentage points



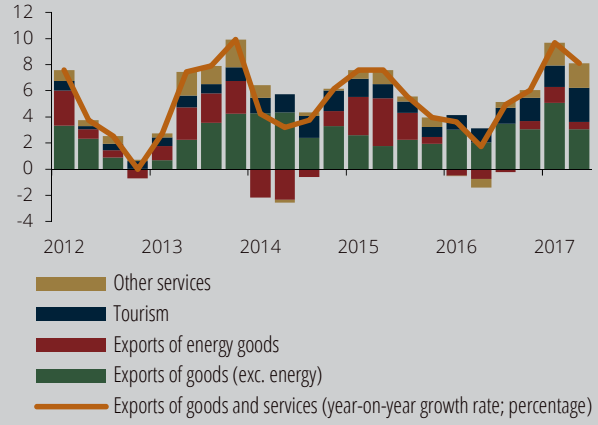
Sources: INE and Banco de Portugal calculations.

Chart 6.7 • Developments in GFCF by type of investment | 2008 Q1=100



Sources: INE and Banco de Portugal calculations.

Chart 6.8 • Contributions to the real growh rate of total exports | Year-on-year growth, in percentage, and contributions, in percentage points; quarterly values



Sources: INE and Banco de Portugal calculations.

The contribution from the machinery and equipment component to the year-on-year change in GFCF also rose, to stand at 3.7 p.p. in the first half of 2017. This GFCF component recovered the most since 2013, having almost reached the level recorded in the first quarter of 2008.

GFCF in transport equipment accelerated in this semester, with a year-on-year rate of change of 23.1%, compared to 9.2% in the previous semester. This seems to be also partly related to the dynamics of the tourism sector, reflecting investments of car rental companies.

Exports of goods and services went up by 8.9% in the first half of 2017, following 4.1% growth in 2016 and continuing the upward profile started in the second half of the year. This reflected a greater contribution from most components, especially the growth in tourism exports, which amounted to 15.3% in the first half of 2017 (Chart 6.8 and Box 8).

Regarding the component of goods exports, the recovery was particularly marked in the first quarter, followed by a deceleration in the second quarter. In both cases the trend of nominal exports extended to intra and extra-EU markets, particularly the former, especially Spain and France. Markets in Angola and China, which had made a negative contribution to the trend of Portuguese exports in 2015 and almost the whole of 2016, reversed this behaviour in 2017 (Chart 6.9).

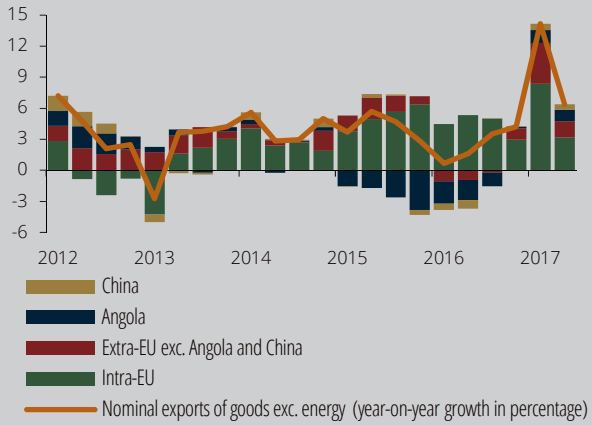
Significant market share gain in Portuguese exports

Portuguese exports in real terms have been growing at a higher rate than external demand, which translated into a further market share gain, amounting to 4.6 p.p. in the first half of 2017. This gain reflected developments both in extra and intra-EU markets. In the latter case, and considering a nominal values analysis, market share gains have extended to various products and countries (Box 9). This conclusion holds when including imports from Angola in the external demand indicator (Chart 6.10).

The favourable performance of Portuguese exports has occurred in an environment of appreciation of the nominal effective exchange rate, and to a lesser extent of the unit labour costs deflated effective exchange rate (Chart 6.11). This shows the importance of non-price competitiveness factors in the dynamics of Portuguese exports.

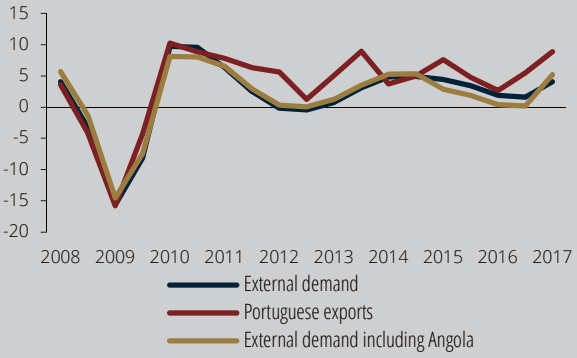
In line with developments in activity and exports, imports of goods and services also accelerated,

Chart 6.9 • Contribution from main markets to growth in nominal goods exports excluding energy | Year-on-year growth, in percentage, and contributions, in percentage points; quarterly values



Sources: INE and Banco de Portugal calculations.

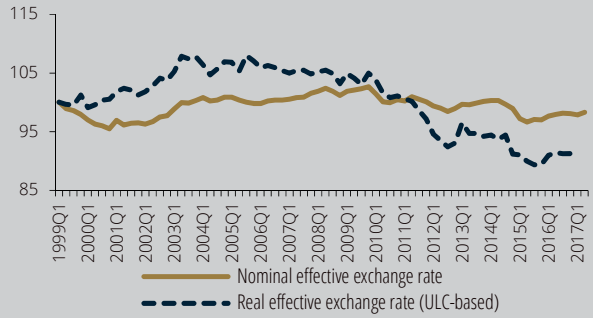
Chart 6.10 • Exports of goods and services and external demand | Half-yearly values; year-on-year, in percentage



Source: INE, IMF, European Central Bank and calculations of Banco de Portugal.

growing by 8.0% in the first half of 2017 from 4.1% in 2016 (Chart 6.12). This evolution reflects most components, but particularly the performance of the energy component. In fact, energy imports grew by 8.5% in volume, after a decline of 0.1% in the second half of 2016. Imports of the other types of goods continued to grow strongly, more than overall demand weighted by import content, as seen since 2013 (Chart 6.13). Considering nominal data, the acceleration in services imports, in addition to the tourism component, essentially reflects transport activities.

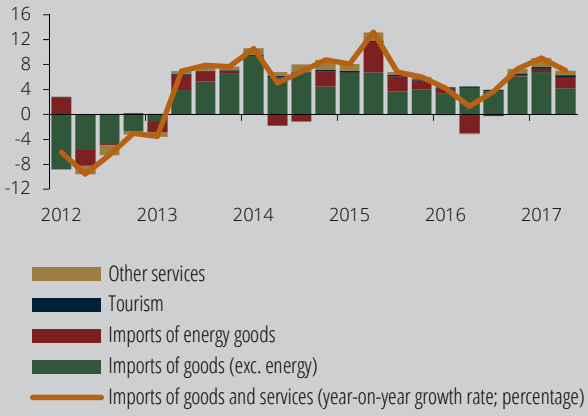
Chart 6.11 • Nominal and real efective exchange rate | 1999 Q1 = 100



Source: European Central Bank.

Note: the efective nominal exchange rate corresponds to a geometric weighted average of euro exchange rate vis à vis the currencies of 19 trade partners. The real exchange rate is deflated using the unit labor costs which corresponds to the ratio between compensation per employee and productivity. The series on compensation per employee is based on data from the national accounts base 2006, applying the same methodology for the period prior to 2005. Additionaly it was adjusted for the direct effects of the sale of tax credits by the general government in 2003.

Chart 6.12 • Contributions to the real growth rate of total imports | Year-on-year growth, in percentage, and contributions, in percentage points; quarterly values



Source: INE and calculations of Banco de Portugal.

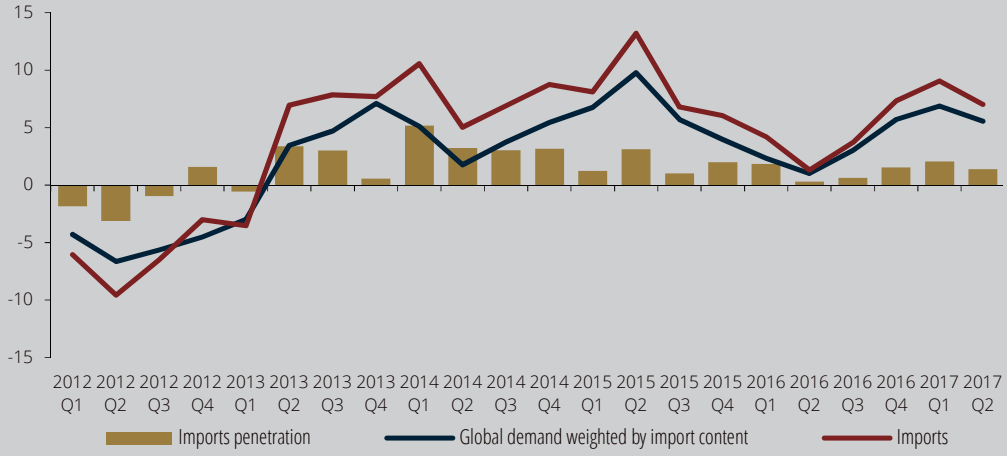


Chart 6.13 • Imports and weighted global demand | Year-on-year change, in percentage

Sources: INE and Banco de Portugal calculations.

Box 7 | Analysis of the investment survey: limitations to investment

Investment plays a key role in determining the present and future outlook for economic growth. However, it is a highly volatile variable, making it difficult to forecast. The investment survey gives an insight into business-owners' perspectives on nominal investment in a given year, providing potentially useful information for forecasting this component over the short term. The survey also includes information on the destinations, objectives, funding sources and limitations to investment. This box aims to provide an analysis of the survey's findings, focusing on factors limiting investment.

The survey is twice-yearly, with the first half-year (H1) surveyed from April to June and the second (H2) from October to January, and is based on a sample of Portuguese enterprises (3820 of them in the most recently released version) which covers most of the economy's private sector.[33] Enterprises with more than 250 workers are all included in the sample, while certain smaller enterprises are excluded.[34] Most investment is made by large enterprises,[35]due to which their over-representation in the sample may contribute to a better understanding of the investment at aggregate level. For each year T, there are four survey estimates, included in the H2 survey for year T-1 (first estimate), the two surveys for year T, and the H1 survey for year T+1 (final estimate). This box took the last estimates for the survey for each year (apart from 2017, for which only the second estimate is available).

The survey questions the enterprises on the presence of limitations to investment, related to demand, production and financing constraints, and on which of these factors predominates. The percentage of enterprises reporting limitations increased between 2008 and 2012, falling thereafter to levels below those observed before the financial crisis (Chart C.7.1). These developments are common to the main subsectors of manufacturing and services and were particularly sharp in 2016.

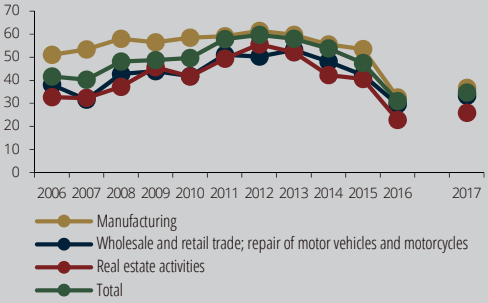
The main limiting factor reported by the enterprises is the deterioration of the sales perspectives, which shows a behaviour over time that closely tracks the economic cycle (Chart C.7.2). With the economic recovery and the reduction in the number of enterprises reporting limitations, this factor has begun to lose importance, replaced by a greater incidence of impediments related to the financing conditions and investment profitability.[36] A detailed analysis of these responses based on the survey's microeconomic data – based on an unweighted sample of enterprises – brings out certain aspects in particular.

In the case of the deterioration of the sales perspectives, the decline in the percentage of enterprises reporting this factor since 2012 is relatively cross-cutting, affecting all enterprise size classes and the main activity sectors (Charts C.7.3 and C.7.4). During the recession, this factor was more relevant for the small enterprises, while for very large enterprises the relative importance of this factor changed little over time, possibly because their greater size affords them market and/or product diversification, enabling them to cope better with drop-offs in demand. The sector of activity most sensitive to the sales prospects factor is construction, in line with the reduction in GVA in this sector over the last few years, which was also sharper than in the other sectors. However, in 2017 there is a convergence in the relative importance in the deterioration of sales prospects across the different sectors.

The negative sales prospects, which reflects uncertainty over the short-term business situation, was partly replaced over the period under analysis by uncertainty over the investment profitability, linked to a more medium or long-term outlook (Charts C.7.5 and C.7.6).

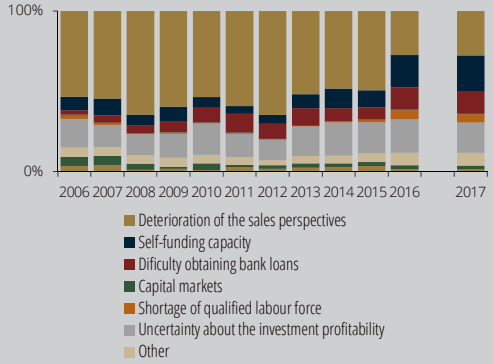
The enterprises' third most mentioned limiting factor relates to self-financing capacity. The fact that this limitation has grown in importance compared to those reflecting other forms of funding illustrates the enterprises' recent increased saving trend, particularly by larger enterprises (Chart C.7.7).[37] By sector of activity, this factor is less important for construction sector enterprises, possibly because they have less capacity to access this form of financing due to their greater

Chart C.7.1 • Percentage of enterprises with investment limitations | In percentage



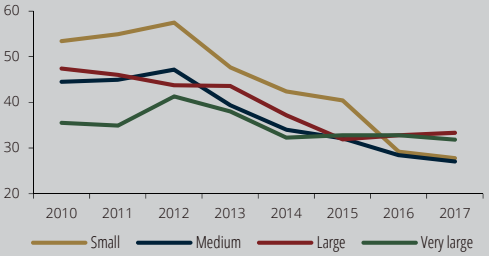
Source: INE (Statistics Portugal).

Chart C.7.2 • Investment survey: Main factor limiting investment | In percentage



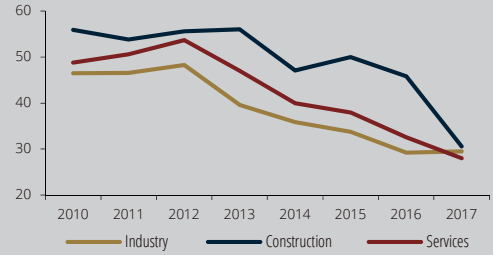
Source: INE.

Chart C.7.3 • Limiting factor by firm size – deterioration of the sales perspectives | In percentage



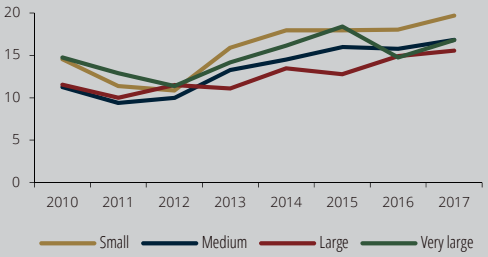
Source: INE (Banco de Portugal calculations).

Chart C.7.4 • Limiting factor by activity sector – deterioration of the sales perspectives | In percentage



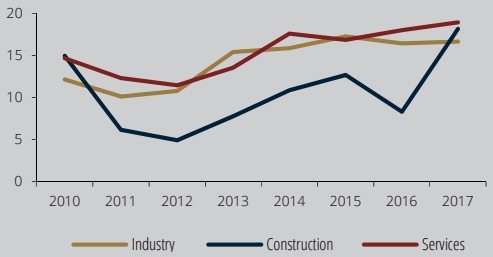
Source: INE (Banco de Portugal calculations).

Chart C.7.5 • Limiting factor by firm size – uncertainty about the investment profitability | In percentage



Source: INE (Banco de Portugal calculations).

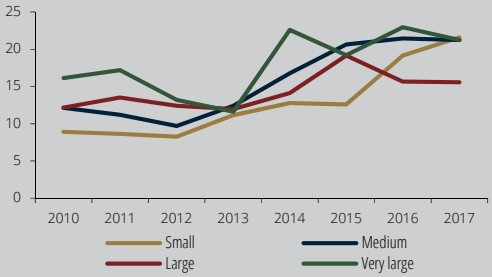
Chart C.7.6 • Limiting factor by activity sector – uncertainty about the investment profitability | In percentage



Source: INE (Banco de Portugal calculations).

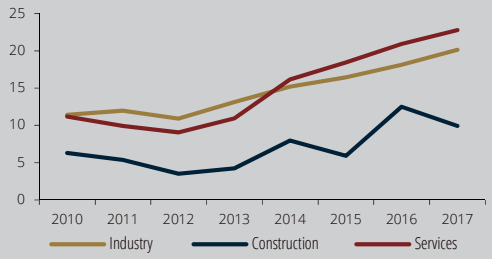
indebtedness (Chart C.7.8). In parallel, this is the sector where the highest percentage of enterprises indicated difficulty in obtaining bank credit as the main limiting factor to investment up to 2014, while thereafter this limitation becomes predominant in manufacturing. This limiting factor is less dominant among larger-size enterprises (Charts C.7.9 and C.7.10)..

Chart C.7.7 • Limiting factor by firm size – self-funding capacity | In percentage



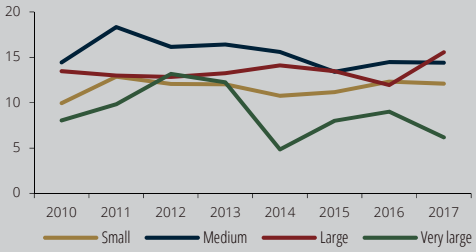
Source: INE (Banco de Portugal calculations).

Chart C.7.8 • Limiting factor by activity sector – self-funding capacity | In percentage



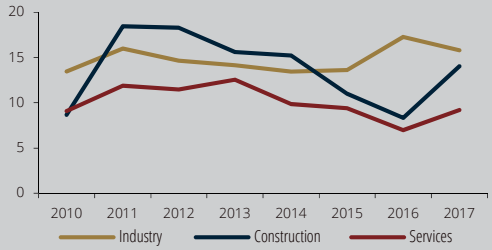
Source: INE (Banco de Portugal calculations).

Limiting factor by firm size – dificulty obtaining bank loans | In percentage



Source: INE (Banco de Portugal calculations).

Chart C.7.9 • Limiting factor by activity sector – dificulty obtaining bank loans | In percentage



Source: INE (Banco de Portugal calculations).

Box 8 | Recent developments in non-resident tourism in Portugal

With a very significant growth over the last few years, tourism has been one of the most dynamic economic sectors not only in Portugal but also around the world. According to the World Tourism Organization (UNWTO), in 2016 there were 1,235.2 million tourist arrivals around the world, growth of 3.9% on 2015 (Chart C.8.1). Europe, with growth of 2.1% in 2016, continues to attract most international arrivals (49.8%), followed by Asia and the Pacific (Chart C.8.2). Among the so-called destination sub-regions, Southern and Mediterranean Europe was the preference of most international tourists (18.5% of the total), followed by Western Europe (14.6%) and North-East Asia (12.5%). The latest information provided by UNWTO suggests that the robust growth of international travel is likely to have continued into the first months of 2017. From January to April, the number of tourist arrivals at global level increased 6% year-on-year.

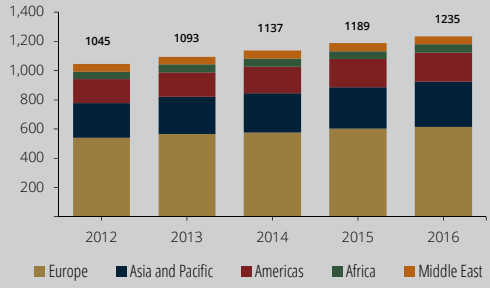
According to the Travel and Tourism Competitiveness Index published by the World Economic Forum in 2017 for 136 countries, Portugal is the 14th most competitive tourism destination at world level (15th in 2015), with Spain leading the ranking, followed by France and Germany.[38]

Tourism has proved to be one of the most dynamic sectors of the Portuguese economy, with very significant growth rates in the latest period, reflecting the global situation. In nominal terms, after a sharp fall in 2009, exports of tourism services have trended upwards, particularly sharply between 2013 and 2016. This trajectory is also observable in other countries in southern Europe, although with a lower magnitude compared to Portugal (Chart C.8.3).

Between 2013 and 2016, nominal exports of tourism services grew at an annual average of 11.1%, doubling their level of 2001. In 2016, nominal exports of tourism services increased 10.7% (10.2% in 2015), totalling EUR 12.68 billion, while imports increased 6.6% (8.9% in 2015), reaching EUR 3.85 billion. Thus, in 2016, the balance of tourism services was EUR 8.8 billion (4.8% of GDP), which is growth of 12.7% (Chart C.8.4). This is the fifth highest positive balance among the European Union countries, after Spain, Italy, Greece and Austria, which is just above Portugal. The information for the first half of 2017 reveals a new very sharp increase in nominal exports of tourism services (by 21.0% year-on-year).

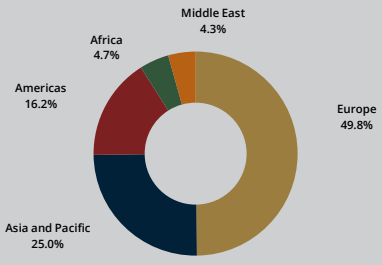
France and the United Kingdom remain the markets with the highest share of revenues from national tourism services, followed by the markets of Spain and Germany (Chart C.8.5). Revenues from tourism services arising from the main intra-EU source markets have increased very significantly since 2013, with growth averages of between 11% (France) and 17% (Italy and the Netherlands). In relation to the extra-EU markets, revenues from tourists from the United States made an important

Chart C.8.1 • Geographical distribution of international tourist arrivals | Millions of tourists



Source: World Tourism Organization.

Chart C.8.2 • Geographical distribution of international tourist arrivals in 2016 | Percentage of total arrivals



Source: World Tourism Organization.

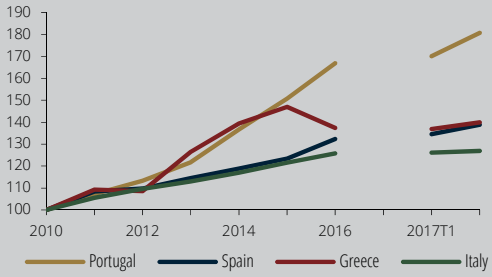
contribution, despite slowing down over the last three years: they almost doubled between 2010 and 2016. Information for the first half of 2017 shows significant growth in revenues from tourism services from the main source markets, in particular from Spanish (a 23.4% increase year-on-year) and Brazilian tourists (a 58.1% increase), in the latter case following a period of relative stagnation.

Just as in nominal terms, in real terms, exports of tourism services have grown very significantly, in particular after 2013. Between 2013 and 2016, exports of tourism services presented an annual average growth of 9.7% in volume terms (Chart C.8.6). As a result, exports of tourism services increased their share of GDP to 6.2% in 2016, compared to a 4.1% share at the start of the century (Chart C.8.7).[39] The relatively favourable performance of exports of tourism services continued in the first half of 2017, with year-on-year growth of 15.3% from 9.7% in 2016.

The robust growth in tourism was also reflected in a sharp increase in demand for accommodation services (Chart C.8.8). Between 2013 and 2016, the number of overnight stays by non-residents in Portuguese hotels grew at an annual average of 9.2% (11.4% in 2016 and 7.1% in 2015). In the first half of 2017, demand for accommodation services remained high, with 11.6% growth in the number of overnight stays year-on-year.

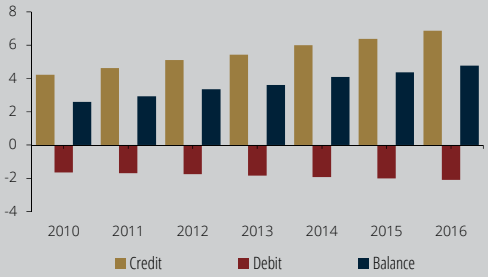
Despite its share having fallen from 2015, the United Kingdom is clearly still the main source market (23.9% of all non-resident overnight stays in 2016), followed by Germany (13.7%). However, there was significant growth in overnight stays by French tourists, who had a similar share to overnight stays by Spanish tourists in 2016, at 10.3%. Tourists' switching from destinations in the

Chart C.8.3 • Developments in nominal exports of tourism services | 2010=100



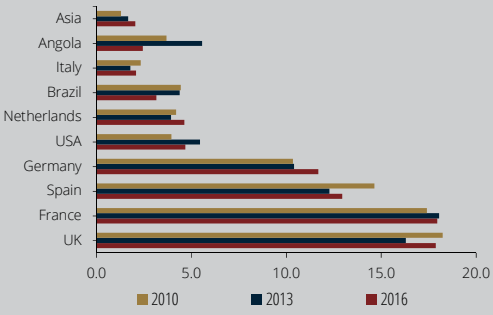
Sources: Eurostat and Banco de Portugal.

Chart C.8.4 • Services account – Travel | Percentage of GDP



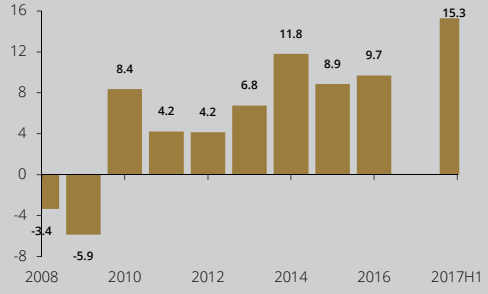
Sources: INE and Banco de Portugal.

Chart C.8.5 • Distribution of nominal exports of tourism services by country | Percentage of total exports of tourism services



Source: Banco de Portugal.

Chart C.8.6 • Growth of real exports of tourism services | Percentage



Sources: INE and Banco de Portugal.

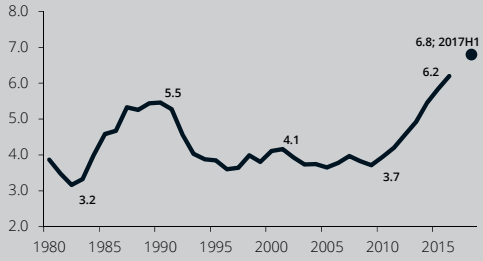
Middle East and northern Africa, which have been affected by social and political tension, may have contributed to the sharp increase in the number of overnight stays by tourists from not only France but also Italy in the most recent period. Between 2013 and 2016, annual average growth in the number of overnight stays by French and Italian tourists was 15.2% and 13.2% respectively.

Among the extra-EU markets, representing around 18% of total overnight stays in 2016 (15% in 2015), overnight stays by tourists from Brazil grew strongly, as did those from Asia, whose stays in Portuguese establishments doubled between 2010 and 2016. There was also strong growth in overnight stays by Brazilian tourists in the first half of 2017 (55.4% growth year-on-year).

By destination region, the Algarve continues to attract most of the non-resident tourists, followed by the Lisbon metropolitan area, which, like the North region, slightly increased its share (Chart C.8.9).[40] According to the tourism statistics released by Statistics Portugal, in 2016, the Algarve was the destination of choice for Irish (82.0% of overnight stays), British (66.2%) and Dutch tourists (60.3%). Overnight stays by German tourists were split between the Algarve (35.2%) and the Autonomous Region of Madeira (33.6%), while the other main markets chose the Lisbon region ahead of the others, especially those from Brazil (57.7%), the United States (54.0%) and Italy (53.2%).

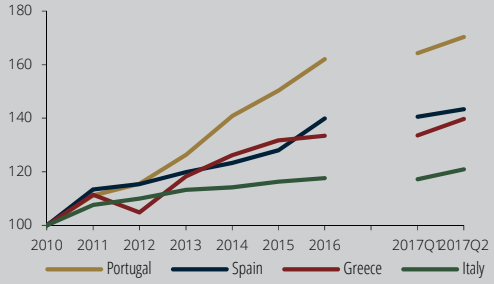
Finally it is important to note that the prices of accommodation and restaurants, while they have remained contained, have grown faster than those observed in other countries in the south of Europe, suggesting that the buoyancy of tourism in Portugal is not the result of increased price competitiveness in the sector (Chart C.8.10)...

Chart C.8.7 • Share of real exports of tourism services in GDP | Percentage of GDP



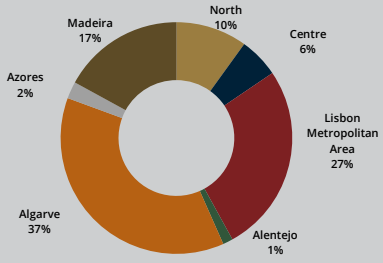
Sources: INE and Banco de Portugal.

Chart C.8.8 • Developments of overnight stays by non-residents in hotel establishments | 2010=100



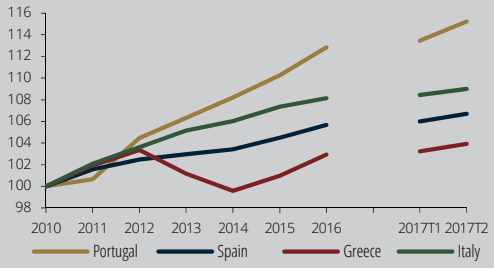
Sources: Eurostat and INE.

Chart C.8.9 • Regional distribution of overnight stays by non-residents in hotel establishments | 2010=100



Source: INE.

Chart C.8.10 • Developments of prices of restaurant and accommodation | 2010=100



Source: Eurostat and INE.

Box 9 | Recent developments in the market share of Portuguese exports of goods excluding energy in the European Union

This box assesses the recent performance of Portuguese producers in the EU markets, based on changes in their respective market shares.[41] It is important to bear in mind in this analysis that the performance of the market total is determined by the Portuguese producers' capacity to compete effectively with the other sources of supply in each of the individual product/country markets, but it is also influenced by concentration of exports in products or geographies with different average growth rates. To isolate these factors, the constant market share methodology was used.[42]

Changes in the share held by Portuguese goods exports in the EU – the **total effect** – is given by the difference between the growth rate of Portuguese goods exports to the EU and the growth rate of total goods imports from the EU. The constant market share methodology breaks this total effect down into two additive and interpretable parts: the market share effect and the combined structure effect. The **market share effect** measures the impact of changes in the share in each individual market (EU country/product combination) and is calculated weighting the difference between the growth rate for Portuguese exports and the growth rate for imports, for each individual market. The weights are the individual markets' shares of total Portuguese exports to the EU for the prior period. The **combined structure effect** assesses the effect of the relative specialisation of Portuguese exports in the individual markets (combining the geographical structure effect with the product structure effect). The relative specialisation of Portugal is measured taking the difference between the share of each individual market of total Portuguese exports and the share of total imports from the EU. This specialisation reflects a positive (negative) contribution to the combined structure effect if the imports from that individual market grow above (below) the average growth of total imports from the markets analysed.

The source of the external trade information used in this box is Eurostat. The data correspond to nominal values for exports of goods excluding energy from Portugal to the EU and for imports of goods excluding energy from EU trading partner countries, broken down into 11 product groups defined from the Combined Nomenclature classification (CN). Thus 297 individual markets are analysed, crossing country and product. As the analysis uses nominal data, the results are influenced by exchange rate and price fluctuations, which must be taken into account in its interpretation. The monthly periodicity of the data allows the analysis to be extended into the first half of 2017.

In 2016, Portuguese exports of goods excluding energy to the EU grew at a higher rate than intra-EU imports, leading to overall share gains, i.e. a total positive effect (Chart C.9.1). In the first half of 2017 the total effect is positive, although lower than in the same period of the year before (1.5 percentage points (p.p.)), due to a sharper acceleration in EU imports than in Portuguese exports.

The central issue of this box is the assessment of the market share effect, as it reflects the competitiveness of the Portuguese exporters in terms of their capacity to compete effectively with suppliers from other countries in each of the individual markets considered. The market share effect has been positive since 2010, apart from the years 2014 and 2015 (Chart C.9.2). In 2016 and in the first half of 2017, the market share effect reached 3.0 and 0.2 p.p. respectively.

Table C.9.1 presents each individual market's contribution to the market share effect in 2016 and in the first half of 2017.[43] The table also includes the product and geography totals in the breakdown of the market share effect. Portuguese exports recorded effective share gains across most products in 2016. A large contribution was made by machinery and electrical equipment (1.7 p.p.)

and to a lesser extent chemicals, plastics and rubber (0.7 p.p.), which contrast with the losses of share in transport equipment (-0.5 p.p.). In the first half of 2017, the share gains were smaller than in 2016, but the contribution made by machinery and electrical equipment (0.4 p.p.) continues to stand out. Transport equipment continues to make a negative contribution (-0.5 p.p.).

Table C.9.1 • Breakdown of the market share effect in a sample of 297 individual markets | Contribution of each individual country/product market in percentage points

2016

Code CN	Description	Spain	France	Germany	United Kingdom	Netherlands	Italy	Belgium	Poland	Others	Total
01-24	Agri-food, beverages and tobacco	0.1	0.0	0.0	-0.1	0.0	0.2	0.0	0.0	0.0	0.2
28-40	Chemicals, plastics and rubbers	0.4	0.0	-0.1	0.1	-0.1	0.1	0.0	0.0	0.2	0.7
44-49	Wood, cork, pulp and paper	0.0	0.1	-0.1	-0.1	0.1	0.0	0.0	0.0	0.0	0.0
41-43; 50-59	Hides, leather and textiles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
60-63	Apparel and clothing accessories	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.3
64-67	Footwear and headgear	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
68-71	Stones, plasters, ceramics and glass	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	0.0	-0.3
25-26; 72-83	Minerals and base metals	0.2	0.3	-0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.6
84-85	Machinery and electrical appliances	0.3	0.2	0.3	0.6	0.0	0.0	0.0	0.0	0.2	1.7
86-89	Transport equipment	0.1	-0.2	-0.6	0.1	0.0	0.0	0.0	0.0	0.2	-0.5
90-99	Miscellaneous products	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
	Total	1.3	0.6	-0.6	0.5	0.0	0.4	0.1	0.1	0.8	**3.2**

1st half 2017

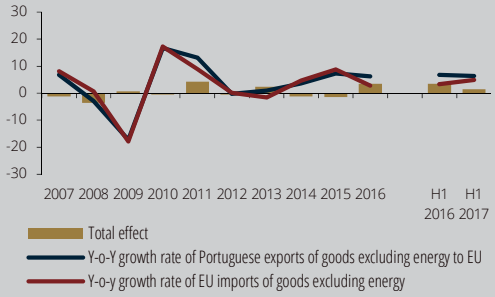
Code CN	Description	Spain	France	Germany	United Kingdom	Netherlands	Italy	Belgium	Poland	Others	Total
01-24	Agri-food, beverages and tobacco	-0.4	0.0	0.1	-0.1	0.1	0.2	0.0	0.0	-0.1	-0.2
28-40	Chemicals, plastics and rubbers	0.0	0.0	-0.1	0.0	0.1	0.0	0.2	0.0	-0.1	0.1
44-49	Wood, cork, pulp and paper	0.0	0.1	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.0	-0.1
41-43; 50-59	Hides, leather and textiles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
60-63	Apparel and clothing accessories	-0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
64-67	Footwear and headgear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
68-71	Stones, plasters, ceramics and glass	-0.3	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1
25-26; 72-83	Minerals and base metals	0.1	0.0	-0.1	0.1	-0.1	0.1	0.0	0.0	-0.1	0.0
84-85	Machinery and electrical appliances	0.2	0.2	0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.4
86-89	Transport equipment	-0.1	0.5	-0.7	0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.5
90-99	Miscellaneous products	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.4
	Total	-0.8	0.6	-0.6	0.2	0.3	0.2	0.2	0.0	0.0	**0.2**

Sources: Eurostat and Banco de Portugal calculations.

In terms of destination geographies, the largest contribution to the effective share gain in 2016 was made by Portuguese exports to the Spanish market (1.3 p.p.) in several products. Furthermore, there were share gains in the French, British and Italian markets (of 0.6, 0.5 and 0.4 p.p. respectively). In the first half of 2017, the largest contribution to the market share gain came from the French market (0.6 p.p.), while the Spanish market made a negative contribution. There were also share gains of 0.3 p.p. in the Dutch market and 0.2 p.p. in the United Kingdom, Italy and Belgium. In 2016 and in the first half of 2017, Portuguese exporters lost market share in Germany, reflecting in particular losses in the transport equipment market. This was related to the reallocation of the export destinations of an important automotive sector enterprise, resulting in exports flowing directly to the Chinese market.

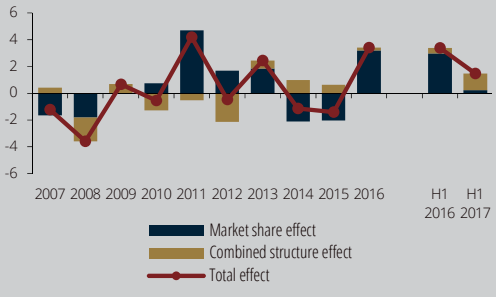
The results show that Portuguese exports of goods excluding energy gained effective market share in the EU in 2016 and the first half of 2017, suggesting an improvement in competitiveness in most product/country markets in this geography. In the latest period, the trend of effective share gains in the intra-EU product/country markets observed since 2010 and interrupted in 2014-2015 has now been restored.

Chart C.9.1 • Year-on-year growth rates of Portuguese exports of goods excluding energy to EU and total EU imports of goods excluding energy and change in market share (total effect)
| In percentage and percentage points



Sources: Eurostat and Banco de Portugal calculations.

Chart C.9.2 • Arithmetic breakdown of the nominal change of the share of Portuguese exports of goods excluding energy to EU
| In percentage points



Sources: Eurostat and Banco de Portugal calculations.

7. Prices

Acceleration in consumer prices in the first half of 2017

In the first half of 2017 the inflation rate in Portugal, measured by the year-on-year change in the Harmonised Index of Consumer Prices (HICP), stood at 1.6% (Table 7.1). This represented an increase of 1 p.p. from the previous year and of 0.8 p.p. from the second half of 2016. The rise in inflation occurs against a background of higher internal and external price pressures. From a monthly viewpoint, the inflation rate reached a peak of 2.4% in April, associated with the dynamics of services prices, and fell afterwards. Inflation in the first half of 2017 was identical to that observed in the euro area. Economic agents' expectations point to a stabilisation of inflation at around 1.5% for 2017, in line with the euro area average.

Rise in the inflation rate based on developments in unit labour costs and import prices

The rise in the inflation rate observed since the last year relies, on the one hand, on higher growth in unit labour costs, and on the other, in an acceleration in non-energy import prices (Chart 7.1). Inflation in Portugal in the first half of the year was similar to that observed in the euro area and is expected to continue that way, which reflects the importance of monetary policy in the anchoring of inflation dynamics in monetary union countries as a whole (Chart 7.2). This is confirmed in a breakdown of inflation developments based on Banco de Portugal's inflation projection model (Chart 7.3). This breakdown also makes it possible to identify the positive albeit temporary contribution of fuel price developments in the first half of 2017.[44]

Acceleration in consumer prices in the first half of 2017 based on the evolution of services, but with equally positive contributions from food and energy

In terms of the main HICP aggregates, services made the greatest contribution to the increase in inflation in the first half of 2017. Services prices rose by 2.2% in the first half of 2017 compared to the same period a year earlier (Chart 7.4).

Table 7.1 • HIPC inflation – main components | In percentage

	Weights	Annual rate of change			Year-on-year rate of change		
	2016	2014	2015	2016	16 H1	16 H2	17 H1
Total	100.0	-0.2	0.5	0.6	0.5	0.8	1.6
Total excluding energy	91.7	0.0	0.8	0.9	0.8	0.9	1.3
Total excluding unprocessed food and energy	81.4	0.2	0.7	0.8	0.9	0.7	1.1
Goods	57.7	-1.1	-0.1	0.0	-0.3	0.2	1.1
Food	23.4	-0.7	1.5	0.8	0.5	1.2	2.0
Unprocessed food	10.3	-2.1	1.9	1.6	0.8	2.4	2.8
Processed food	13.1	0.4	1.2	0.3	0.3	0.2	1.3
Industrial	34.3	-1.4	-1.3	-0.7	-0.9	-0.5	0.5
Non-energy	26.0	-1.4	-0.7	-0.3	0.0	-0.5	-0.7
Energy	8.3	-1.5	-3.7	-1.8	-3.3	-0.3	4.4
Services	42.3	1.1	1.4	1.5	1.5	1.5	2.2
Memo items:							
Contribution of administered prices (in p.p.)	-	0.3	0.1	0.1	0.1	0.2	0.2
Contribution of taxes (in p.p.)	-	0.1	0.2	-0.1	0.2	-0.4	-0.6
Consumer Price Index (CPI)	-	-0.3	0.5	0.6	0.5	0.7	1.4
HICP – Euro area	-	0.4	0.0	0.2	0.0	0.5	1.6

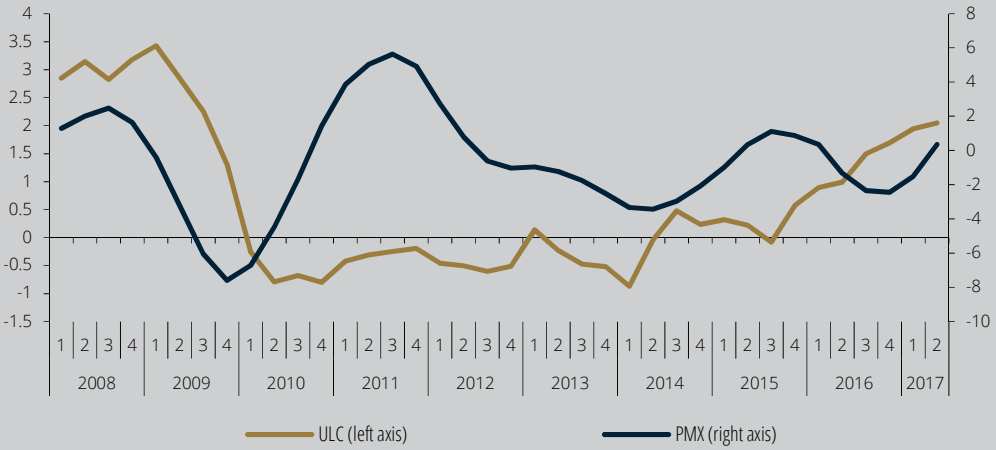
Sources: Eurostat and INE.

This value was not observed since 2012 and exceeded the euro area's by 0.8 p.p. Within this scope, reference should be made to the dynamics of the prices of accommodation services (1 p.p. contribution to the year-on-year rate of change in the HICP in the first half of 2017) and restaurants and cafés (0.3 p.p. contribution).

As a whole, food prices contributed 0.5 p.p. to the inflation rate in the first half of 2017. Unprocessed food prices went up by 2.8% in the first half of 2017, compared to 0.8% in 2016. In turn, processed food prices rose by 1.3% in the same period, 1 p.p. above the values recorded in 2016 and in the same period a year earlier.

Energy prices rose by 4.4% in the first half of 2017 vis-à-vis the same period a year earlier, against a background of higher oil prices, especially in the first quarter of the year. This accounted for a 0.4 p.p. contribution to the inflation rate and contrasts with the 2013-16 period, when oil prices fell. The increase in energy prices relied on higher fuel prices (5.6 p.p. contribution to the year-on-year rate of change in the HICP in the first half of 2017), whose dynamics are

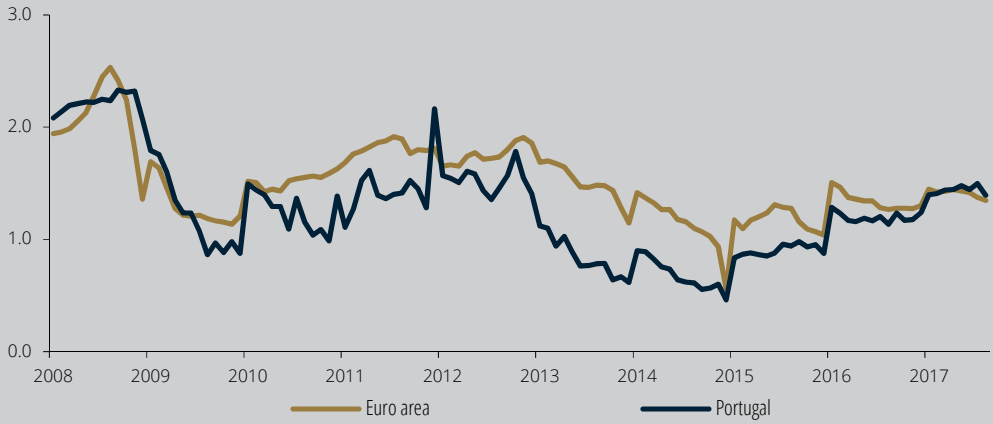
Chart 7.1 • Evolution of unit labor costs and import prices excluding energy goods | Annual average rate of change, in percentage



Sources: INE and Banco de Portugal.

Notes: ULC – Unit labor costs; PMX – import prices excluding energy goods. Unit labor costs per unit produced were calculated based on INE's Quarterly National Accounts. The last two quarters are estimated based on social security information. The non-energy goods imports deflator was calculated based on information from INE.

Chart 7.2 • Inflation expectations for the upcoming year in Portugal and in the euro area | In percentage



Source: *Consensus Economics*.

strongly based on oil prices (Charts 7.5 and 7.6). The dynamics of diesel prices was also affected by the rise in the tax on oil products for this type of fuel early in the year. The increase in fuel prices was partially offset by negative contributions from electricity and gas prices (around -0.5 and -0.6 p.p. respectively).

Finally, non-energy industrial goods prices decreased by 0.7% in the first half of 2017, falling more strongly than in 2016 (-0.3%), in contrast to a virtual stabilisation in the same period a year before. In spite of the mitigation of the fall in these component's prices recorded since 2012, its contribution to the year-on-year inflation rate continued to be negative, at -0.2 p.p. in the first half of 2017.

Virtually nil differential between the inflation rate in Portugal and the euro area

The inflation rate in the euro area rose from 0.2% in 2016 to 1.6% in the first half of 2017. In this semester, the differential between inflation in Portugal and the euro area was nil, in contrast

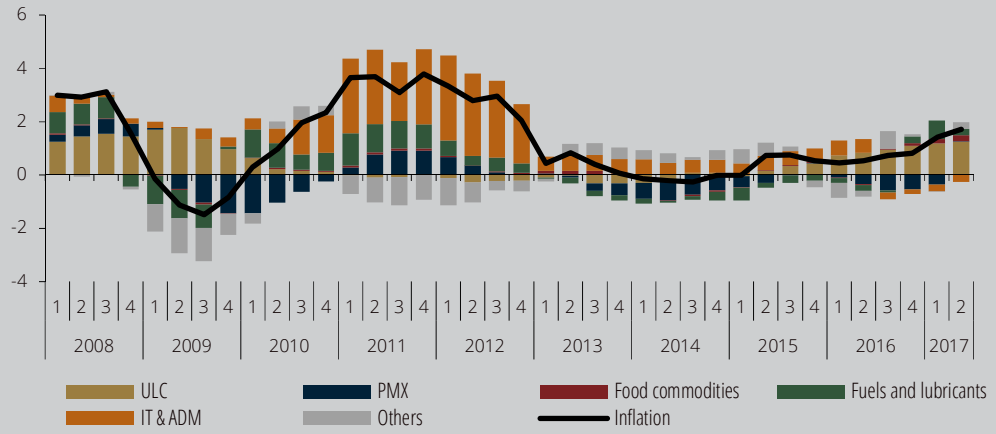


Chart 7.3 • Decomposition of HICP inflation according to the MIMO model | Contributions, in percentage points

Sources: Eurostat and Banco de Portugal.

Notes: The chart breaks down the year-on-year inflation rate into the contribution of each of the HICP components according to Banco de Portugal's analysis and projection model for inflation, called MIMO (Monthly Inflation Model). ULC – unit labor costs; PMX – import prices excluding energy goods; IT – indirect taxation; ADM – administered prices. Indirect taxation on fuels is included under the IT & AMD heading.

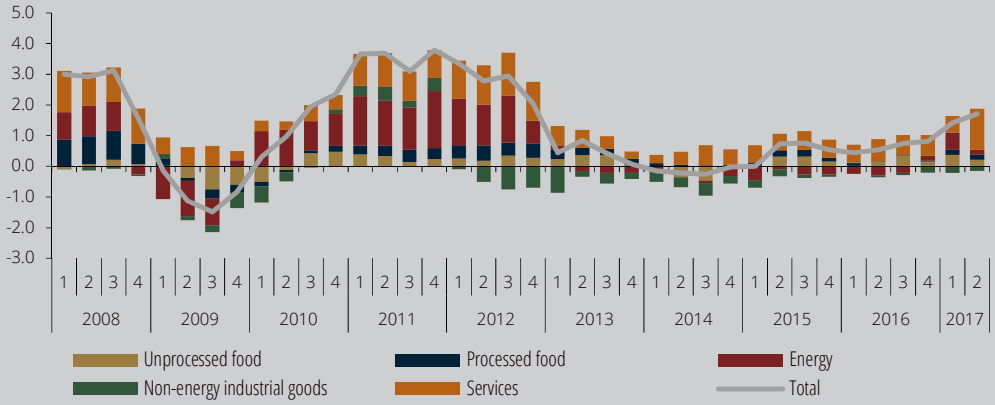


Chart 7.4 • HIPC inflation | Contributions, in percentage points

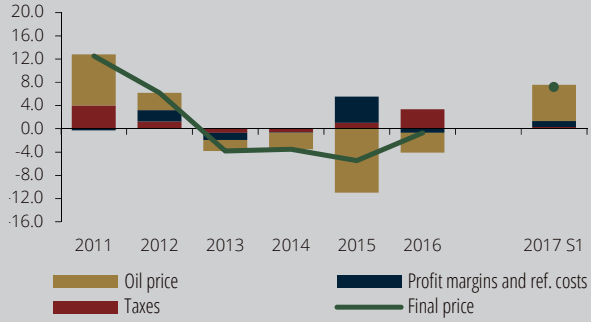
Source: INE.

to the positive differential observed since early 2015 (Chart 7.7). Although services prices accelerated more markedly in Portugal than in the euro area, with a 0.3 p.p. contribution to the differential, these dynamics were offset by a lower rate of change in energy and non-energy industrial goods prices, which made a joint contribution of -0.5 p.p. to the differential (Chart 7.8). The positive contribution from services and the negative contribution from non-energy industrial goods to the inflation differential between Portugal and the euro area follow the trend of the past few years. In turn, the contribution from energy prices contrasts with that seen in previous years, inflecting from positive in 2015 and 2016 to negative in the first half of 2017.

The GDP deflator grew less than the domestic demand deflator, in a context of a deterioration in terms of trade in the first half of 2017

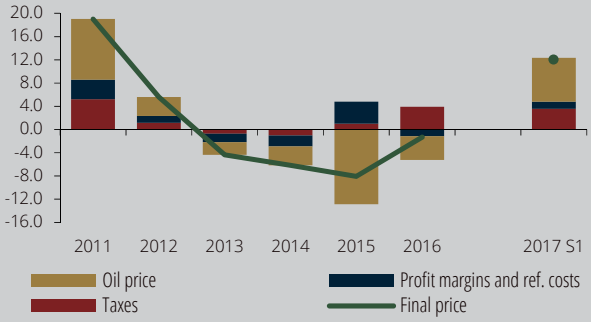
In the first half of 2017 the GDP deflator recorded a lower year-on-year rate of change than that

Chart 7.5 • Year-on-year rate of change in petrol prices | Contributions, in percentage points



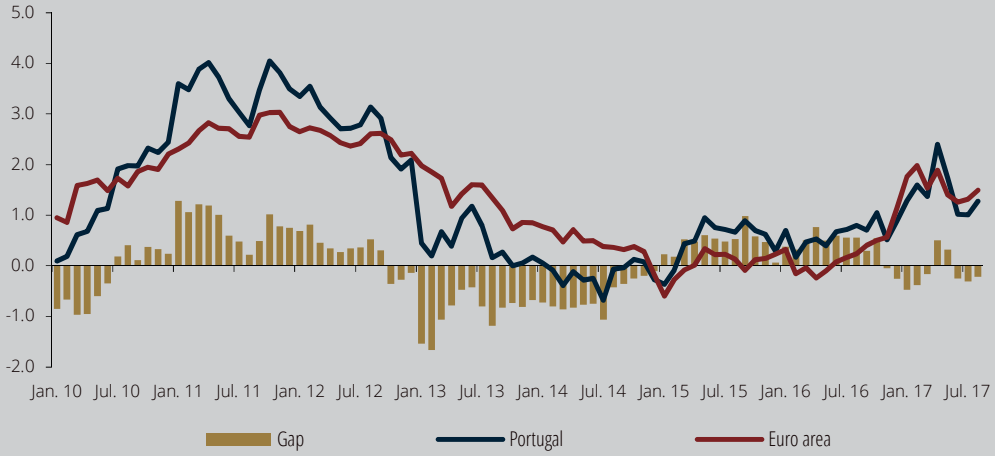
Sources: ECB and Directorate General for Energy and Geology.

Chart 7.6 • Year-on-year rate of change in diesel prices | Contributos, em pontos percentuais



Sources: ECB and Directorate General for Energy and Geology.

Chart 7.7 • HICP inflation in Portugal and in the euro area | Year-on-year rate of change, in percentage



Sources: Eurostat and INE.

in the domestic demand deflator, thus reversing the trend observed since 2012 (Chart 7.9). This is explained by a rebound in oil prices, which was especially important in the first quarter of 2017 and made a considerable contribution to the deterioration in terms of trade. Since Portugal is a net energy importer, the rise in oil prices contributed to the creation of a positive gap between the rates of change in the domestic demand deflator and the GDP deflator. While the former is directly affected by the evolution of import prices, the latter only echoes the dynamics of domestically produced goods. In the second quarter of 2017, with the slowdown in oil prices from the same period a year earlier, the change in terms of trade was virtually nil, as had been the case in the second half of 2016.

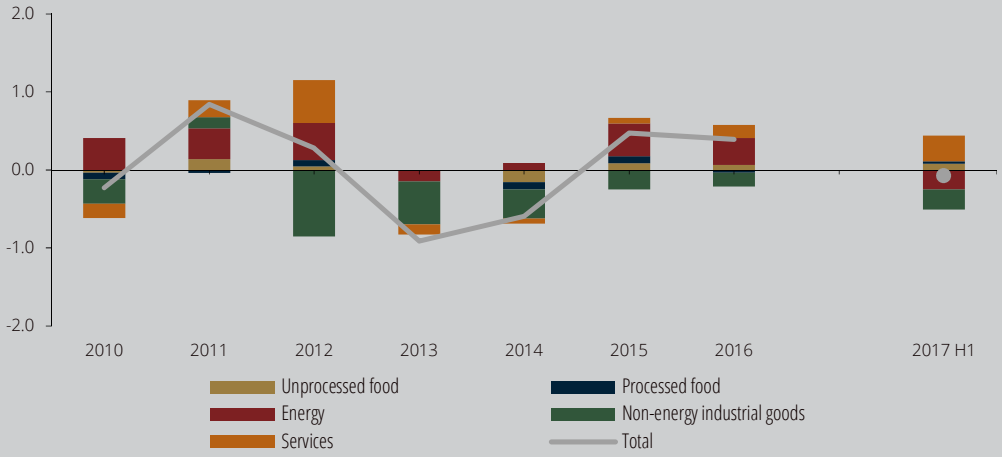


Chart 7.8 • HICP inflation gap between Portugal and the euro area | Contributions, in percentage points

Sources: Eurostat e INE.

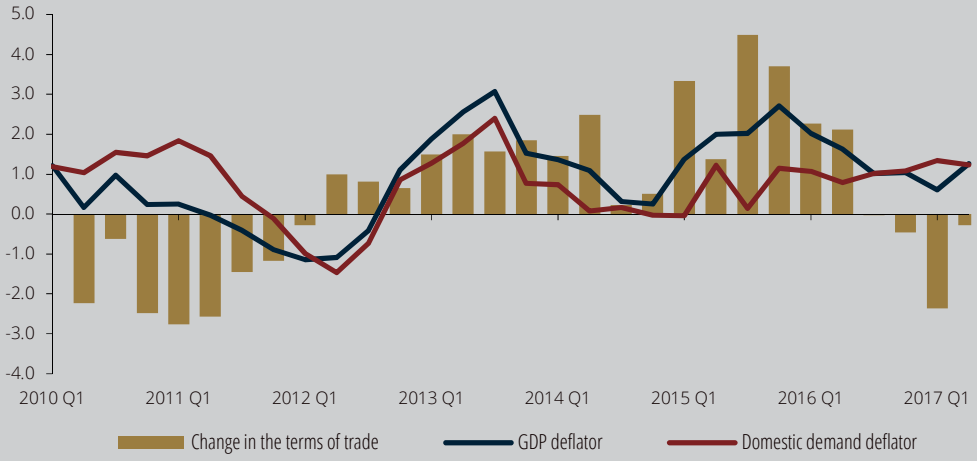


Chart 7.9 • GDP deflator, domestic demand deflator, and terms of trade | Year-on-year rate of change, in percentage

Source: INE.

8. Balance of payments

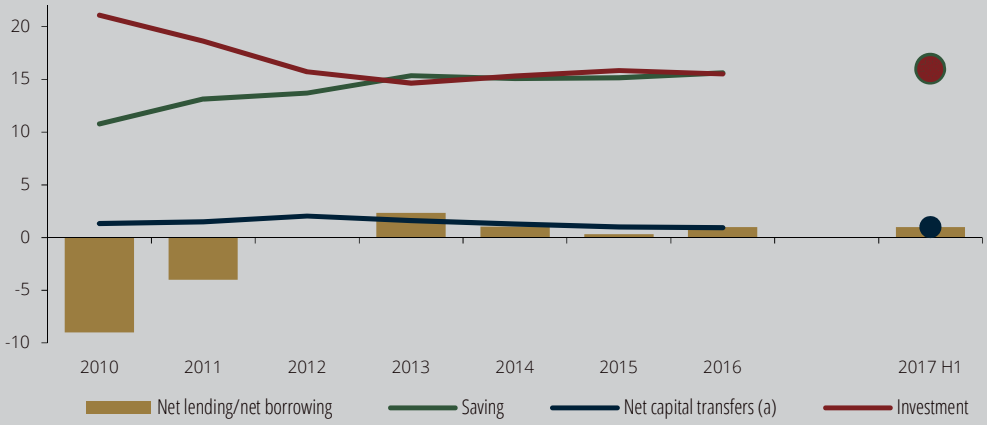
Maintenance of the lending capacity of the Portuguese economy in the first half of 2017

In the first half of 2017, the Portuguese economy's net lending capacity stood at 1.0% of GDP, virtually unchanged from 2016 (Chart 8.1). This result continues to reflect the maintenance of domestic savings at a level close to that of investment, similarly to the past few years.

At sector level, it should be noted that the general government net borrowing continued to decline, reflecting a rise in current savings and the stabilisation of the investment (Chart 8.2).

The non-financial private sector reduced its net lending capacity (0.1% of GDP from 1.2% of GDP in 2016), reflecting a rise in investment and a decline in saving (Chart 8.3). This result reflected a decrease in the net lending of households and the deterioration of non-financial corporations' net borrowing. In the case of households,

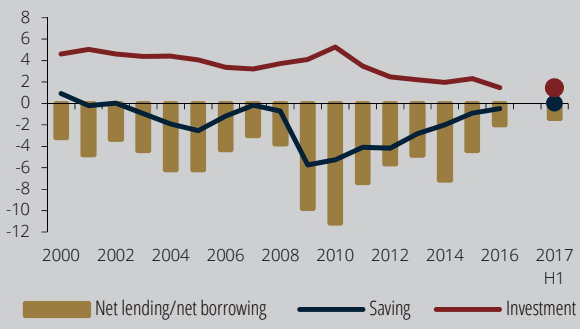
Chart 8.1 • Net lending/net borrowing of the economy | As a percentage of GDP



Source: INE.

Note: The values for 2017 H1 corresponds to the year ending in the quarter. (a) Includes the net acquisition of non-produced assets.

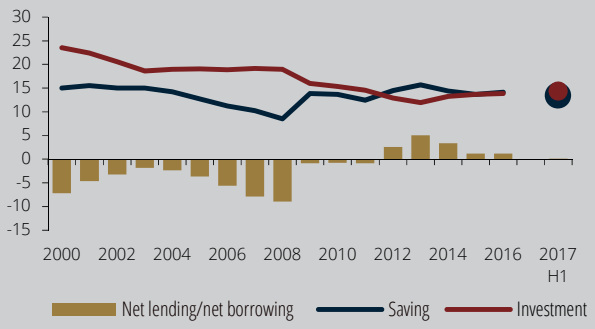
Chart 8.2 • Net lending/net borrowing of the economy – general government | As a percentage of GDP



Source: INE.

Note: The values for 2017 H1 corresponds to the year ending in the quarter.

Chart 8.3 • Net lending/net borrowing of the economy – non financial private setor | As a percentage of GDP



Source: INE.

Note: The values for 2017 H1 corresponds to the year ending in the quarter.

these developments chiefly reflected a decline in saving with a marginal increase in investment (Chart 8.4). By contrast, the non-financial corporate sector recorded a decline in saving and a rise in investment of similar magnitude (Chart 8.5)

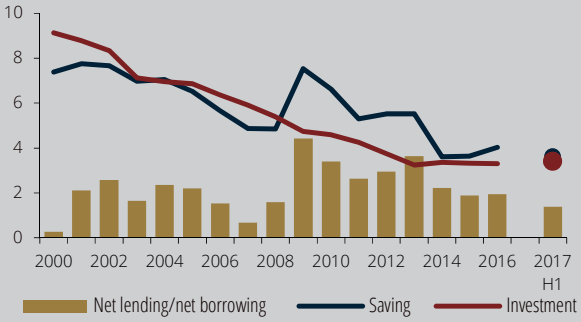
In the first half of 2017, the current and capital account recorded a deficit equivalent to 0.7% of GDP, 0.3 p.p. higher than the deficit recorded in the corresponding period of 2016 (Table 8.1).

Deterioration of the goods account and improvement in the services account

The deterioration of the current and capital account deficit resulted chiefly from developments in the goods account (deficit of -5.7% of GDP in the first half of 2017 compared with -4.5% of GDP in the first half of 2016). Conversely, the goods, secondary income and capital accounts recorded an increase in the respective surpluses (Chart 8.6).

Both components of the goods account – energy and non-energy – contributed to the deterioration of the goods account (Chart 8.7). The balance of the non-energy goods component deteriorated, in year-on-year terms, by -0.9 p.p. of GDP, after a -0.5 p.p. change in GDP in 2016.

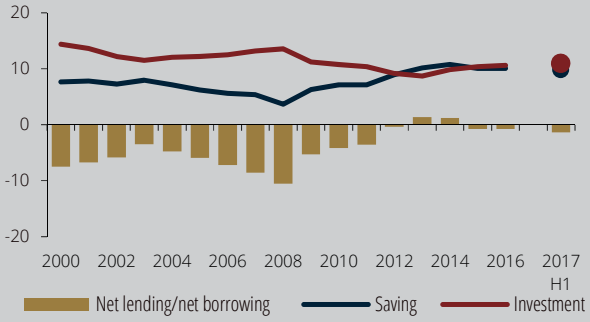
Chart 8.4 • Net lending/net borrowing of the economy – households | As a percentage of GDP



Source: INE.

Note: The values for 2017 H1 corresponds to the year ending in the quarter.

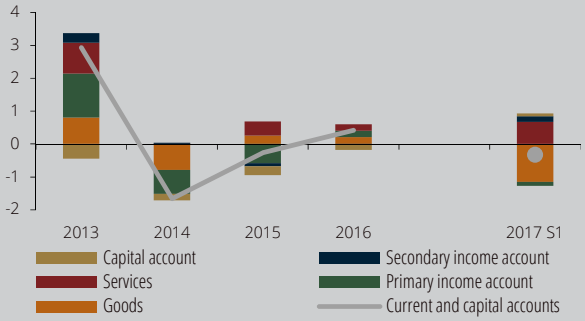
Chart 8.5 • Net lending/net borrowing of the economy – non financial corporations | As a percentage of GDP



Source: INE.

Note: The values for 2017 H1 corresponds to the year ending in the quarter.

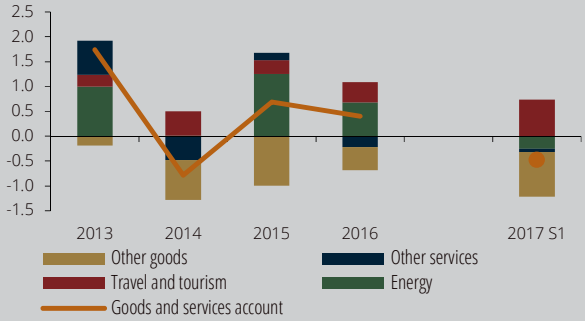
Chart 8.6 • Decomposition of the change in the current and capital account balance | In percentage points



Sources: INE and Banco de Portugal.

Note: The values for 2017 H1 corresponds to a year-on-year change.

Chart 8.7 • Decomposition of the change in the goods and services account balance | In percentage points



Sources: INE and Banco de Portugal.

Note: The values for 2017 H1 corresponds to a year-on-year change.

Table 8.1 • Balance of payments | As a percentage of GDP

	2013	2014	2015	2016	2016 S1	2017 H1
Current and capital accounts	3.2	1.6	1.3	1.7	-0.4	-0.7
Current account	1.6	0.1	0.1	0.7	-1.1	-1.5
Goods and services account	1.9	1.1	1.8	2.2	1.2	0.8
Goods	-4.7	-5.5	-5.2	-5.0	-4.5	-5.7
Services	6.6	6.6	7.0	7.2	5.8	6.4
of which:						
Travel and tourism	3.6	4.1	4.4	4.8	3.5	4.2
Primary income account	-1.2	-1.9	-2.5	-2.3	-3.1	-3.2
Secondary income account	0.9	0.9	0.8	0.8	0.8	1.0
of which:						
Emigrants/immigrants remittances	1.4	1.5	1.6	1.5	1.6	1.6
Capital account	1.6	1.4	1.2	1.0	0.7	0.8
Financial Account	3.2	1.8	1.3	1.7	-0.4	-0.2
Errors and omissions	-0.1	0.2	0.0	0.0	0.0	0.5

Sources: INE and Banco de Portugal.

In turn, the energy goods account, which had made the largest contribution to the improvement in the goods account in 2015 and 2016, recorded, in the first half of 2017, a negative contribution of -0.3 p.p. of GDP to the change in the goods account.

A breakdown of developments in the services account reveals the positive contribution of the item travel and tourism.

These developments in the goods and services account reflect a deterioration in terms of trade, contrary to the past few years (Chart 8.8). The contribution of net exports, in terms of volume, was positive and higher than in 2016.

Rise in external financial flows in the first half of 2017

As to the financial account, in the first half of 2017 there were net purchases of financial assets equivalent to 10.9% of GDP. This value is much higher than that recorded in the corresponding period of 2016 (1.1% of GDP) (Chart 8.9). This rise was chiefly due to the investment pattern of Banco de Portugal and of non-monetary financial institutions (NMFIs) (Chart 8.10). In the case of Banco de Portugal there was a rise in purchases of debt securities issued by supranational entities, under the Eurosystem's Asset Purchase Programme. In turn, NMFIs, resumed the purchase of external assets, while in the corresponding period a year earlier they had made significant disinvestment. This investment reflected chiefly the purchase of securities by investment funds and insurance corporations, amid a recovery in demand by households for financial products issued by these entities.

On the other hand, the raising of funds by resident economic agents from non-resident entities also increased significantly (Charts 8.9 and 8.11). In the first half of 2017, it represented 11.1% of GDP, compared with 1.5% of GDP in the corresponding period of 2016.

In the first half of 2016, there was a very sharp fall in the external liabilities of the general government, accounted by both the early repayment of IMF loans and Banco de Portugal's purchase of Portuguese public debt held by non-residents, under the Eurosystem's Asset Purchase Programme. In 2017, the reduction of the general government external liabilities continued, but it was much smaller, in particular due to the decline in the purchase of public debt securities by Banco de Portugal. The increase in Banco de Portugal's external liabilities continued to reflect liabilities of the TARGET system.

The non-financial corporate sector was one of the sectors that obtained financing from non-residents. This financing was diversified, translating into capital, debt securities and trade credit. Turning to debt securities, funds raised were more diversified than in the corresponding period a year earlier, during which the purchase of debt by direct investment companies had been more significant (Chart 8.12). As to this specific item, financing to non-financial corporations was chiefly made through capital. It should also be noted that real estate purchase operations by non-residents continue to have a substantial weight.

Deterioration of the international investment position as a result of falling interest rates of Portuguese Treasury bonds

The international investment position (IIP) stood at -105.1% of GDP in the first half of 2017. At

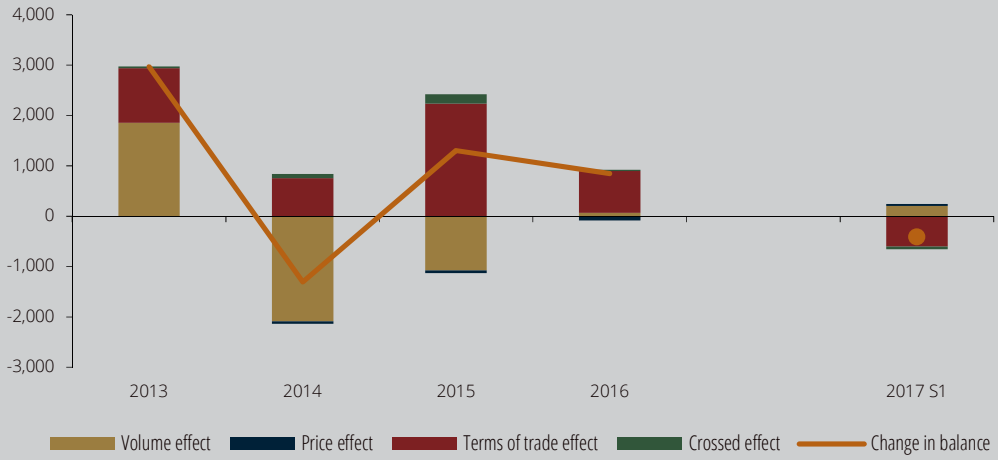
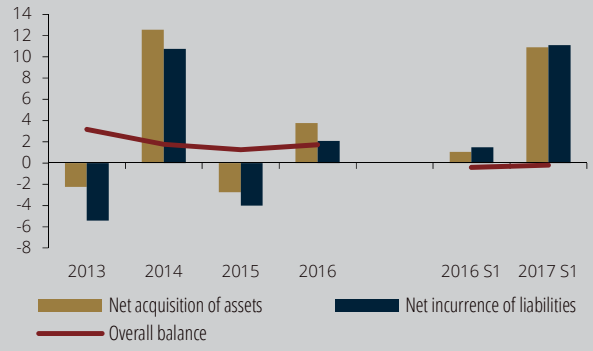


Chart 8.8 • Decomposition of the change in goods and services account balance | Million of euros

Sources: INE and Banco de Portugal.

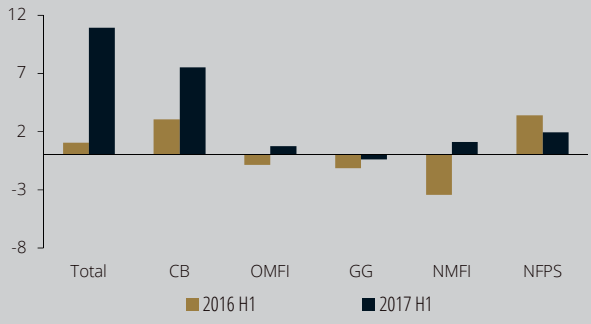
Note: The values for 2017 H1 corresponds to a year-on-year change.

Chart 8.9 • Net change in financial assets and liabilities and overall financial balance | As a percentage of GDP



Sources: INE and Banco de Portugal.

Chart 8.10 • Net acquisiton of assets (1) | As a percentage of GDP



Sources: INE and Banco de Portugal.

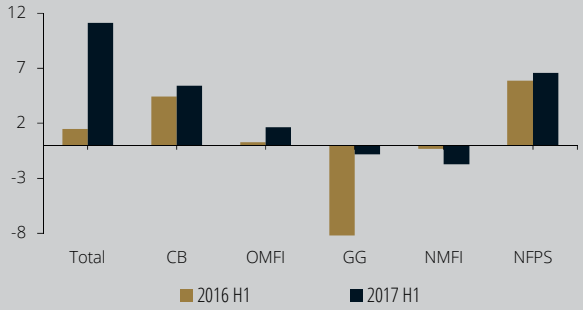
Note: (1) The net acquisiton of assets corresponds to buys less sells of foreign assets by residents. A plus sign represents a net outflow of funds from the portuguese economy.

end-2016 this figure was -104.8% of GDP (Chart 8.13).

The major contribution to these developments came from price changes in financial instruments, in particular, from the valuation of resident entities' liabilities. Key among these was the valuation of the Portuguese Treasury bonds, associated with falling interest rates. To a lesser extent, there was a valuation in liabilities of non-financial corporations (NFCs) and other monetary financial institutions (OMFIs). Exchange rate changes deteriorated the IIP by 0.7% of GDP, due to devaluations recorded mainly in the portfolios of NFCs and Banco de Portugal. Transactions (financial account) made a marginal contribution to these developments (-0.1% of GDP).

Conversely, GDP growth, in nominal terms, enabled a reduction of the ratio of the IIP to GDP of 1.9 p.p.

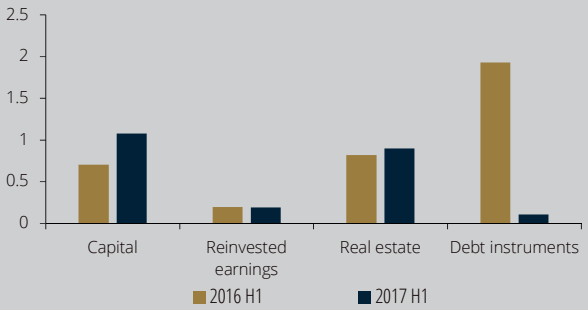
Chart 8.11 • Net incurrence of liabilities (2)
| As a percentage of GDP



Sources: INE and Banco de Portugal.

Note: (2) The net incurrance of liabilities corresponds to the increase less redemptions of national liabilities with non-resident entities. A plus sign corresponds to a net inflow of funds in the portuguese economy.

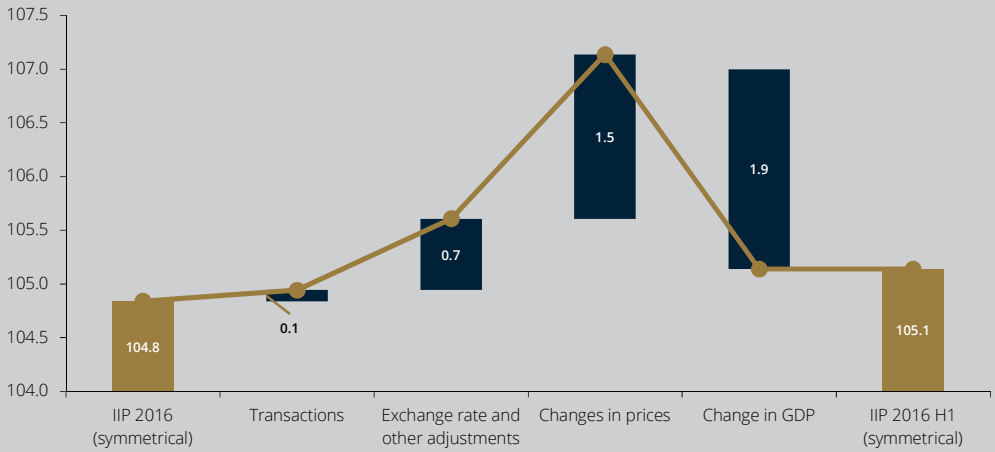
Chart 8.12 • Transactions of foreign direct investment in non financial corporations
| As a percentage of GDP



Sources: INE and Banco de Portugal.

Note: This data corresponds to the Foreign Direct Investment in Portugal, accordingly with the directional principle. I.e., all transactions with non-residents regarding resident direct investment enterprises are considered, irrespective of whether they are an asset or a liability of such corporations.

Chart 8.13 • Change in International investment position
| As a percentage of GDP



Sources: INE and Banco de Portugal.

Notes

1. In 2016 and 2017, the euro area national accounts were distorted by an erratic behaviour displayed by the Irish national accounts, owing to the transfer of intellectual property from US multinationals to this country. The analysis excludes Ireland and focuses on the euro area trend without these effects.

2. The face value of mortgage-backed securities declines over time, given that usually capital outstanding is not paid at once, but rather gradually paid down, together with interest payments, in contractually agreed periodic payments.

3. The adopted strategy was established in detail in September 2014 (see *Policy Normalization Principles and Plans*, Federal Reserve) and subsequently updated in March 2015 and June 2017.

4. The ON RRP facility is available to a broad set of overnight market participants, including government-sponsored enterprises, money market funds and banks.

5. Reinvestments of amounts regarding securities reaching maturity or paid down must only occur when certain increasing caps are exceeded. These caps are expected to begin at a certain amount per month (USD 6 billion for Treasury securities and USD 4 billion for agency debt and mortgage-backed securities), increase by the same amount every three months over a period of twelve months and remain at their maximum levels (USD 30 and 20 billion respectively) until the balance sheet normalisation has ended. In the long run, in order to minimise the effect of balance sheet assets on the allocation of credit across sectors of the economy, the FOMC foresees that the assets in the Federal Reserve balance sheet will primarily be Treasury securities, while limited sales of mortgage--backed securities might be warranted to reduce or eliminate residual holdings.

6. Everything else being equal, an increase in other liabilities should imply a decrease in the volume of reserves offered.

7. Fourth quarter of 2019 for larger liabilities, third quarter of 2021 for median liabilities and second quarter of 2023 for smaller liabilities.

8. See, for example, IMF (2017), *Global Financial Stability Report April 2017*, Chapter 1.

9. Initially, the interest rate on TLTRO-I corresponded to the rate applied to main refinancing operations prevailing at the time of take-up, plus a 10 b.p. spread. This spread was eliminated in January 2015 for the last six operations to be conducted.

10. For more details on the applicable conditions, see the box entitled "Recent non-standard monetary policy measures" in the December 2014 issue of the *Economic Bulletin*.

11. These indicators were calculated only up to July 2016, given that it takes 12 months between the consultation date and the establishment of a lending relationship in the CCR.

12. According to the average of results from the Survey on the Access to Finance of Enterprises (SAFE), conducted by the European Central Bank for the 2011-16 period, of all the Portuguese small and medium-sized enterprises that applied for bank loans in the six months before the survey, 57% reported that they had received the full amount they had applied for.

13. The CCR covers loans granted by resident credit institutions (banks, savings banks, mutual credit agricultural banks, credit financial institutions, financial leasing companies, credit securitisation companies, mutual guarantee companies and other lenders listed by Banco de Portugal).

14. Enterprises' exit from the loan market does not necessarily imply that their credit amounts have been reimbursed or recognized as a loss. A market exit may be due to the sale of credit portfolios to the rest of the world or to other Portuguese institutions that do not report to the CCR, as well as due to securitisation.

15. Box 5 of the June 2017 issue of the *Economic Bulletin* details the European fiscal rules applicable to Portugal in the current context.

16. A small share of the revenue from the recovery of the BPP guarantee, classified as a temporary measure, was recorded in the first half of the year. However, figures adjusted for this effect are not shown for the balance of the first half of the year, given that the impact is lower than 0.1% of GDP.

17. See footnote 3 of INE Press Release of 22 September 2017 on quarterly sector accounts.

18. For more details on the impact of temporary measures considered by Banco de Portugal, see Chapter 4 of the May 2017 issue of the *Economic Bulletin* and Box 4 of the June 2017 issue of the *Economic Bulletin.*

19. These measures include the reinstatement of wages in 2016, the elimination of the surcharge in 2017 and the extraordinary increase in pensions as of August 2017, which have a considerable impact on the intra-annual pattern expected for these items.

20. In accordance with the Stability and Growth Pact, minimum convergence towards the medium-term objective for a country under the preventive arm, in normal cyclical conditions and with a debt ratio above 60% is a structural improvement of more than 0.5 pp.

21. In 2016, the Christmas bonus or equivalent was entirely paid in twelfths. In 2017 half of it will be only paid in November (or December, for social security pensioners), while the remaining amount will continue to be paid in twelfths.

22. For more details on the freezing of spending appropriations from 2009 to 2017, see technical information No 24/2017 from the Technical Budget Support Unit (UTAO) (in Portuguese only).

23. Even excluding the delivery of military equipment, treated as negative investment expenditure which were more significant in 2016 than in 2017, the rate of change implied in the SP 2017-21 stands at 31.4%.

24. This indicator increased from 120.9% at the end of 2016, to 121.6% at the end of June 2017.

25. The debt ratio target was revised in the second EDP notification from 127.9% to 127.7%, due to a denominator effect.

26. For a brief description of the rules established under the preventive arm of the Stability and Growth Pact, see Box 5 of the June 2017 issue of the *Economic Bulletin.*

27. The IGCP's Investors Presentation, released on 8 September 2017, foresees the use of €2.8 billion in deposits in 2017, which would be compatible with a reduction of more than €5 billion in the second half of the year.

28. Detailed information on the financing strategy is published by the IGCP and relates to the State's direct debt, not including debt financing of other general government subsectors, which nevertheless represents a minor share.

29. The division between tradable and non-tradable goods and services presented in this box was based on AMECO's approach (see, for example, *EC's Quarterly Report on the Euro Area*, Volume 12 No 4; 2013). Hence, the so-called tradable sector includes agriculture, forestry and fishing, manufacturing, and tradable services (trade, accommodation, food services, transport, and information and communication activities). On the other hand, the non-tradable sector includes public administration, construction, energy, financial and real estate activities, and other services.

30. According to ESA 2010, when households own the dwelling they occupy a value must be estimated for the respective rent – the 'imputed rent' – based on the rent of similar dwellings actually rented. Conceptually, imputed rents correspond to the income associated with the assets owned by households as own housing and can be seen as compensation for the services provided by this asset. From the production viewpoint, the value estimated for these services is incorporated into the GDP as a component of value added for the branch of activity relating to real estate activities. This results in an extremely high value of GVA in this sector and consequently of the respective productivity per worker. In this context, this box also presents the calculations of sectoral contributions to the growth of GVA per worker excluding not only public administration but also real estate activities.

31. From 2000 to 2014 employment in construction declined by 53.4%.

32. Assessed by levels, GDP in the year ended in 2017 Q2 amounted to €188.7 billion, compared to a GVA of €163.9 billion in the same period.

33. The NACE B to N divisions are included, excluding therefore the agriculture, public administration, education and health sectors, among others. The enterprises included in the institutional sector of public administration are also excluded, apart from municipal services. This survey is harmonised with that released by the European Commission within the business and consumer survey indicators dataset, which has a tighter scope, both in the sectors of activity and in the survey period considered.

34. Enterprises with fewer than four workers or turnover below EUR 125,000 and those with fewer than 10 workers and turnover below EUR 500,000 are excluded.

35. 'Microeconomic evidence of corporate investment decisions', in the October 2016 issue of the *Economic Bulletin*.

36. The results for limiting factors present in the enterprises (without defining which predominates) maintains the hierarchy of importance as given in this box. In those results, the percentage of enterprises reporting the most mentioned types of limiting factors remained relatively unchanged up to 2016, when it began to drop.

37. See Special issue 'Saving and investment dynamics of Portuguese firms', in the June 2017 issue of the *Economic Bulletin*.

38. This index synthesises the assessment made on 14 relevant dimensions of tourism sector competitiveness: business environment (Portugal is in 54th place), safety and security (11th), health and hygiene (27th), human resources and labour market (27th), ICT readiness (41st), prioritisation of travel and tourism (14th), international openness (22nd), price competitiveness (73rd), environmental sustainability (47th), air transport infrastructure (31st), ground and port infrastructure (39th), tourist service infrastructure (4th), natural resources (38th) and cultural resources and business travel (18th).

39. In nominal terms, the share of GDP held by exports of tourism services was 6.3% in 2016. In Spain, Greece and Italy, this was 4.9%, 7.5% and 2.2% respectively.

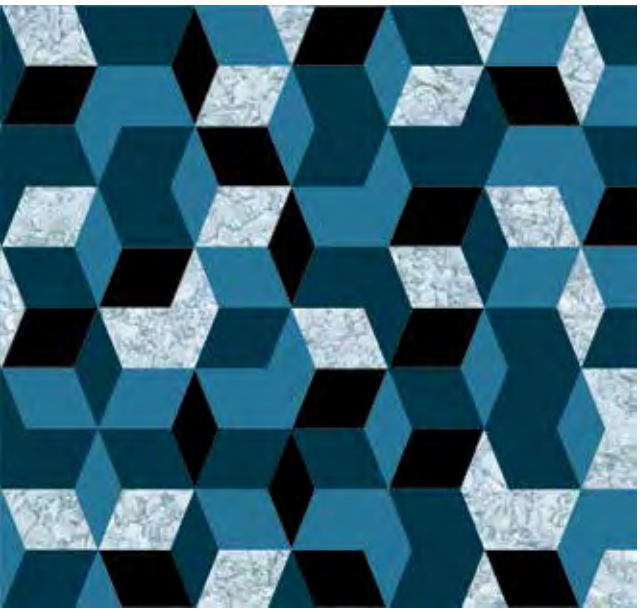
40. The buoyancy of the overnight stays in the Lisbon metropolitan area made a significant contribution to the considerable growth in overnight stays in the first six months of 2017, with growth of 15.1% (4 p.p. contribution to the 11.6% growth), followed by the Algarve region (growth of 9.4% and contribution of 3.4 p.p.).

41. The availability of data means that the analysis only covers the intra-EU component of Portuguese exports. In 2016, the market of the 27 EU Member States accounted for 75% of total Portuguese goods exports.

42. For details on the methodology of constant market share analysis used, see Amador, J. and Cabral, S. (2008), 'The Portuguese Export Performance in Perspective: A Constant Market Share Analysis', in the Autumn 2008 issue of the *Economic Bulletin*.

43. For a comparable detailed analysis of the market share effect for the 2013-2015 and 2011-2012 periods, see the May 2016 issue of the Economic Bulletin, Box 5.2, 'Market shares of Portuguese exports of goods in the recent period: an analysis based on a sample of export markets' and the 2012 *Annual Report*, Box 5.2, 'Portuguese export market shares in 2012: An analysis based on a sample of export markets'. However, the sample of export destination geographies considered in this box (intra-EU countries) differs from that used in the other analyses (which used 10 of the main destination geographies for Portuguese exports, namely Spain, Germany, France, the United Kingdom, the Netherlands, the United States, Italy, Belgium, China and Brazil).

44. Conversely, the decline in the GVA tax bracket applied to restaurants in the second half of 2016 generated a negative contribution from the indirect taxes item to the year-on-year inflation rate, since changes in indirect taxes are assumed to be fully transmitted to consumer prices. This seems to have generated a compensation in the 'Other' item – which covers other non-identified factors contributing to inflation dynamics – since restaurants and cafés did not fully reflect the reduction in the GVA tax bracket on prices.



Projections for the Portuguese economy in 2017

Projections for the Portuguese economy in 2017

Continued recovery process of the Portuguese economy

According to the projections prepared by Banco de Portugal, the recovery process of the Portuguese economy continues in 2017, with GDP rising 2.5%, after an increase of 1.5% in 2016 (Table 1). Growth in 2017 is 0.3 p.p. higher than currently projected for the euro area[1] interrupting the real divergence trend recorded since 2000 (Chart 1). The level of GDP in 2017 is 1.5% lower than in 2008, which corresponds to the level recorded before the recession associated with the most recent international financial crisis (Chart 2).

Projections for 2017 comprise information available up to 22 September, as well as a set of assumptions consistent with the ECB's projection exercise (Box 1 below).The international environment of the Portuguese economy continues to be very favourable, with external demand accelerating from 2016 and increasing by more than 4%. The monetary and financial environment is also benign, with the persistence of an accommodative monetary policy stance in the euro area and improving economic agents' financing conditions.

The ongoing economic recovery is supported by higher GFCF buoyancy, whose growth for 2017 is projected to stand at 8%, and by a shift of productive inputs to sectors more exposed to international competition, with goods and services exports growing approximately 7% in 2017, around 44% above the level recorded in 2008 (Chart 2). The increasing internationalisation of the Portuguese economy is accompanied by the maintenance of a current and capital account surplus, which is expected to stand at 1.8% of GDP in 2017.

Table 1 • Projections of Banco de Portugal for 2017 | Annual rate of change, in percentage

	Weights 2016	EB October 2017		EB June 2017	
		2016	2017 (p)	2016	2017 (p)
Gross domestic product	100.0	1.5	2.5	1.4	2.5
Private consumption	65.5	2.1	1.9	2.3	2.3
Public consumption	18.0	0.6	0.3	0.5	0.4
Gross fixed capital formation	15.3	1.6	8.0	-0.1	8.8
Domestic demand	99.1	1.6	2.5	1.5	2.6
Exports	39.9	4.1	7.1	4.4	9.6
Imports	39.0	4.1	6.9	4.4	9.5
Contribution to GDP growth, net of imports (in p.p.) (a)					
Domestic demand		0.6	1.0	0.5	0.7
Exports		0.9	1.5	0.9	1.8
Employment (b)		1.6	3.1	1.6	2.4
Unemployment rate		11.1	9.0	11.1	9.4
Current plus capital account (% of GDP)		1.7	1.8	1.7	2.1
Goods and services account (% of GDP)		2.2	1.7	2.2	2.0
Harmonised index of consumer prices		0.6	1.6	0.6	1.6

Sources: Banco de Portugal and Statistics Portugal.

Notes: (p) – projected, (p.p.) – percentage points. For each aggregate, this table shows the projection corresponding to the most likely value, conditional on the set of assumptions considered. (a) The demand aggregates net of imports are obtained by subtracting an estimate of the imports needed to meet each component. For more information, see the Box entitled 'The role of domestic demand and exports in economic activity developments in Portugal', in the June 2014 issue of the *Economic Bulletin*. (b) Total employment, in number of persons, according to the national accounts concept.

Growth projected for private consumption is lower than that of GDP – amid improving labour market conditions (with a sharp acceleration of employment, a reduction of the unemployment rate and a slight rise in the labour force) and high confidence levels – and continues to be conditioned by weak growth of real wages and by a continuing reduction in household indebtedness (Chapter 3 of this *Economic Bulletin*).

After growing 2.9% in the first half of 2017, GDP is projected to decelerate in the second half of the year (Chart 3). This deceleration chiefly reflects the export performance. Following strong market share gains of exports in the second half of 2016 and in the first half of 2017, a slight market share gain is expected in the second half of 2017 (Chart 4).[2] Throughout 2017, exports continued to make a contribution to annual GDP growth (net of their import content) higher than that of domestic demand, whose contribution remains relatively stable in intra-annual terms.

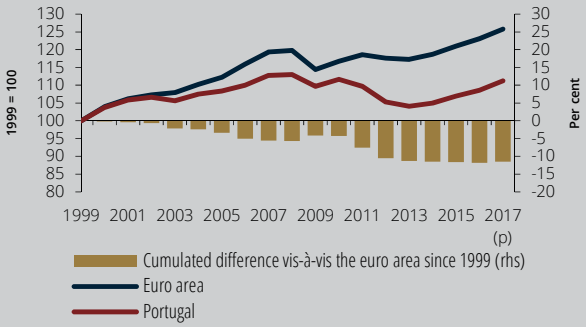
The set of information available for 2017 broadly confirms the scenario outlined in the June issue of the *Economic Bulletin*. GDP growth remains unchanged from the previous projection exercise, with an upward revision of the contribution of domestic demand to GDP growth (net of its import content) offsetting the downward revision of the contribution of exports (Table 1). These revisions are partly associated with the incorporation of the Quarterly National Accounts for the second quarter of 2017.

Shift in domestic demand, with higher investment buoyancy

The contribution of domestic demand to GDP growth in 2017 (net of its import content) is around double the figure recorded in 2016, remaining however lower than that of exports (Chart 3). The rise in the contribution of domestic demand reflects strong GFCF growth and a slight deceleration of private consumption.

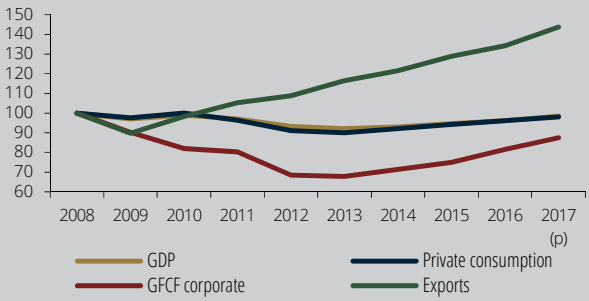
The deceleration of private consumption in 2017 chiefly reflects developments in durable goods consumption. After high growth in the recent past, partly associated with the materialisation of

Chart 1 • GDP developments in Portugal and the euro area (constant prices)



Sources: Banco de Portugal, ECB and Statistics Portugal.
Note: (p) – projected.

Chart 2 • GDP and main components (constant prices) | Index, 2008 = 100



Sources: Banco de Portugal and Statistics Portugal.
Note: (p) – projected.

consumption decisions postponed during the crisis period, durable goods consumption (particularly cars) is anticipated to decelerate significantly in 2017. Despite recovering, the durable goods stock level implied in the current projection stands at clearly lower levels than those recorded before the international financial crisis.[3]

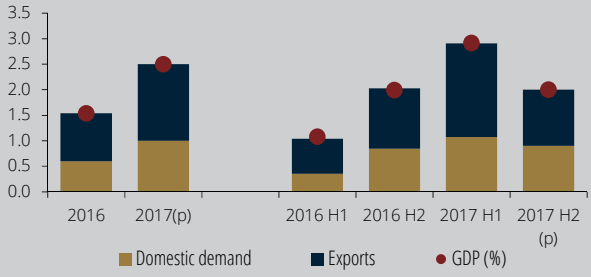
In turn, consumption of non-durable goods and services accelerates in 2017, amid an acceleration of real disposable income and the maintenance of an accommodative monetary policy, with consumer confidence remaining at historically high levels. Growth of real disposable income combines a marked increase in employment with weak growth of real wages.

Turning to GFCF, growth of 8% is projected for 2017, after a 1.6% rise in 2016. The acceleration of GFCF mainly reflects developments in the public component (Box 1 below) and GFCF in housing, with corporate GFCF maintaining strong growth, like in 2016. The rise in investment remains conditioned by the high indebtedness level of the Portuguese economy, being consistent with the continuation of the process of reduction of corporate and household debt.

In 2017 GFCF in housing grew significantly above GDP, after having declined almost uninterruptedly since the early 2000s, as a result of the sector's restructuring process. Growth of GFCF in housing is associated with the improving labour market situation and continued access to financing at historically low interest rates, with a rise in new loans for house purchase being anticipated for 2017 (Chapter 3 of this *Economic Bulletin*). This type of investment has become more attractive, reflecting a rise in its rate of return compared with other long-term investments, namely with lower risk. The most recent European-wide trend of investment portfolio shifts, combined with other incentives, namely of a tax nature, may justify the rise in demand by non-residents. In line with the recovery of the real estate market, house prices are expected to continue growing at well above inflation in 2017.

The corporate component of investment increases around 7% in 2017. Since 2016 the percentage of companies reporting investment limiting factors declined significantly, standing at levels below those observed before the financial crisis (Box 7 of this *Economic Bulletin*). Strong corporate

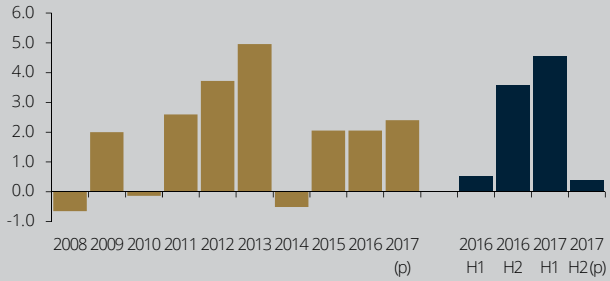
Chart 3 • Net contributions to real GDP growth
| In percentage points



Sources: Banco de Portugal and Statistics Portugal.

Notes: (p) – projected. The demand aggregates net of imports are obtained by subtracting an estimate of the imports needed to meet each component. The calculation of import content was based on data for 2005. For more information, see the Box entitled 'The role of domestic demand and exports in economic activity developments in Portugal', in the June 2014 issue of the *Economic Bulletin*.

Chart 4 • Export market share of goods and services
| Per cent



Sources: Banco de Portugal, ECB and Statistics Portugal.

Note: (p) – projected.

GFCF growth reflects the maintenance of positive expectations about developments in overall demand, the maintenance of favourable financing conditions and the need to recover and modernise the capital stock. In addition, the projection for corporate GFCF growth incorporates information on investment in large-scale infrastructures towards the end of 2017 and on financing through European funds, in the transition to the Portugal 2020 programme, also impacting public investment.

Favourable developments in investment and, particularly, in corporate investment, is very relevant for the Portuguese economy's current and potential growth. However, its recovery pattern is still insufficient relative to the levels observed before the crisis. In 2017 corporate GFCF stands around 12% short of the figure recorded in 2008.

Increase in export market shares

Growth of around 7% projected for goods and services exports in 2017 is significantly higher than the rise in external demand for Portuguese goods and services (Chapter 2 of this *Economic Bulletin* and Box 1 below), even if adjusted for Angola's impact[4] (4.5% and 5.7% respectively). These developments suggest the maintenance of significant market share gains in 2017, as observed on average since 2010. The positive performance of exports in 2017 is taking hold amid the appreciation of the euro and unfavourable developments in the traditional price-competitiveness indicators. Against this background, market share gains denote Portuguese companies' competitive capacity in international markets, which goes beyond price-driven competitiveness gains.[5]

Strong export growth is broadly based across the goods and services component. However, the performance of tourism exports is particularly remarkable (Box 8 of this *Economic Bulletin*) – in 2017 they are around 77% above the level recorded in 2008 – as well as that of tourism-related services exports.

In intra-annual terms, projections point to a pattern of deceleration in exports in the second half of 2017. In the second half of 2016 and first half of 2017 exports were very buoyant reflecting (i) the rebound in extra-Community exports, in particular to Angola, (ii) the acceleration of intra-Community exports, in particular to Spain, (iii) the winding-up of some temporary negative effects, associated with the reduction in production of industrial units in the energy and automobile sectors in 2016, and (iv) the extraordinary growth of tourism exports (Chapter 6 of this *Economic Bulletin*). In the second half of 2017, exports are projected to continue growing, being positively influenced by the rise in the productive and export capacity of an industrial unit of the automobile sector and due to the fact that important international events will take place in the Portuguese territory towards the end of 2017. However, the increase in the export level in the second half of the year will correspond to a deceleration in year-on-year terms, reflecting the normalisation of some of the effects mentioned above.

As usual, growth projected for goods and services imports is in line with developments in overall demand weighted by import content, taking into account the average patterns observed in the past. The 6.9% rise in imports in 2017 reflects buoyant growth in some overall demand components with high import content, namely corporate investment, goods exports and, to a lesser degree, durable goods consumption.

Maintenance of the net lending capacity of the economy

Current projections point to the maintenance of the Portuguese economy's net lending capacity, as measured by the current and capital account surplus, at a level close to that recorded in 2016. In the current situation of high external indebtedness, the existence of a surplus in external accounts is crucial for ensuring the credibility and macroeconomic stability of the Portuguese economy.

The relative stabilisation of the current and capital account surplus in 2017 reflects a decline in the goods and services surplus, which is stronger than that projected in the June issue of the

Economic Bulletin, and an improvement in the balances of the remaining components, in line with the previous projection. The deterioration of the balance of the goods and services account reflects a negative volume effect and, to a lesser extent, a loss of terms of trade. The negative volume effect results from higher import than export buoyancy, in real terms, which is more marked in the current projections. The loss of terms of trade is associated with a rise in oil prices denominated in euro, being slightly lower than in the previous projection exercise.

Developments in the current and capital account are also influenced by the global monetary and financial environment, with the maintenance of low interest rates, and by the distribution flow of Community funds under the ongoing European financing programme, which is anticipated to increase in the second half of 2017.

Rise in employment and reduction in output per worker

Labour market developments projected for 2017 are characterised by a 3.1% rise in employment, 1.5 p.p. higher than in 2016 and 0.7 p.p. higher than projected in the previous exercise, and by a reduction in the unemployment rate to 9.0%. The level of employment projected for 2017 is, however, around 6% lower than in 2008, with the unemployment rate 0.7 p.p. above the level recorded in 2008.

Growth of employment is higher than that projected for GDP, resulting in a decline in apparent labour productivity, already observed from 2014 to the first half of 2017 (Chapter 5 of this *Economic Bulletin*). A number of factors play a role in the very weak dynamic of apparent labour productivity. They include inter alia the low capital level per worker, which is far lower than the euro area average[6] and misallocation of productive resources in Portuguese companies.[7] The reduction in apparent labour productivity at aggregate level in the recent past mainly reflects the changes occurred in each industry (Box 6 of this *Economic Bulletin*).

Acceleration of consumer prices

Inflation, as measured by the rate of change in the HICP, rose from 0.6% in 2016 to 1.6% in 2017, remaining unchanged relative to the June *Economic Bulletin*. Compared with the latest projections for the euro area, a virtually zero differential is anticipated vis-à-vis the euro area.[8] The acceleration of prices in 2017 reflects similar contributions by the energy and non-energy components, while in the latter developments in services prices, particularly in tourism-related activity, stand out (Chapter 7 of this *Economic Bulletin*) (Chart 5).[9]

The rise in inflation reflects increases in import prices in 2017, after a fall in 2016. These developments were broadly based across oil prices and non-energy commodity prices, being partially mitigated by the euro appreciation (Chapter 2 of this *Economic Bulletin*). In addition, labour market developments contributed to an acceleration in unit labour costs in the private sector, reflected in increasing domestic inflationary pressures, amid above potential activity growth. The acceleration in unit labour costs in the private sector chiefly reflects declining apparent labour productivity, which is partially offset by the deceleration of nominal wages.

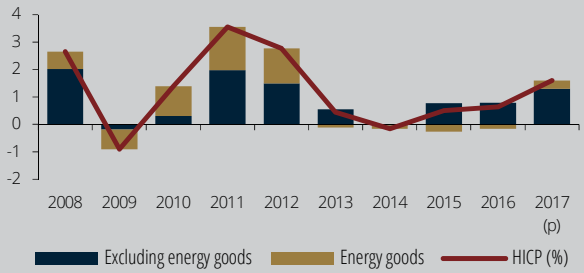
Moderate nominal wage growth is a phenomenon that is common to other European economies and is associated with a number of factors. These include weak evolution of productivity, translated into real wage growth that is limited in historical terms, in particular when compared with previous economic upturns (Chart 6). Other relevant factors are moderate inflation expectations and slack in the labour market. The latter has been decreasing, though it may be higher than suggested by the traditional measures, in line with broader indicators of labour underutilisation (Chapter 5 of this *Economic Bulletin*). The number of companies reporting difficulty in hiring skilled workers as a factor limiting investment (main factor or not) is relatively low, compared with other factors. However, this number increased in 2017, across the various

activity sectors. The rise projected for nominal wages also incorporates information on the minimum wage and the reinstatement of public sector wages.

The rise in productivity remains a major challenge

The current projections point to the continuation of the recovery process of economic activity in 2017, amid a particularly favourable economic, financial and monetary environment. As this process progressively reaches a mature phase, an intra-annual deceleration pattern is expected, consistent with the current sustainable growth pace of the Portuguese economy. Against this background, promoting conditions for higher productivity growth is one of the major challenges of the Portuguese economy, being crucial for rising its growth potential and for a structural convergence process towards the average well-being levels in the European Union.

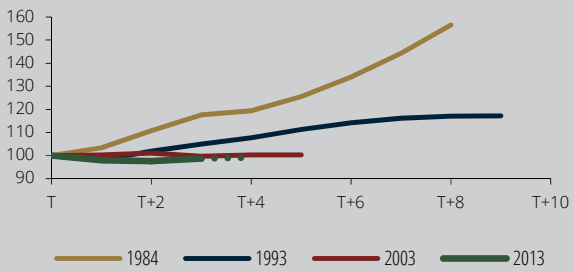
Chart 5 • Harmonised index of consumer prices | Contributions to the annual rate of change, in percentage points



Sources: Banco de Portugal and Eurostat.

Note: (p) – projected.

Chart 6 • Developments in real wages across different economic recoveries | Index, T=100



Sources: Banco de Portugal and Statistics Portugal.

Notes: The economic recoveries considered were determined on the basis of the Portuguese economic cycle and started (T) in 1984, 1993, 2003 and 2013. The 2009 recovery was not considered due to its limited duration. The dotted line corresponds to the projection period.

Box 1 | Assumptions of the projection exercise

The projections for the Portuguese economy are based on a set of assumptions consistent with the ECB's projection exercise, published on 7 September, with cut-off date of 14 August in the case of the technical assumptions for oil prices, interest rates and exchange rates, and 24 August for the remaining set of indicators (Table C.1.1).

In general, there are no significant changes in these assumptions compared with the previous *Economic Bulletin*. As to the international environment, a scenario of acceleration of global economic activity and world trade persists in 2017. Economic activity in the euro area grows 2.2% in 2017, having been revised upwards by 0.3 p.p. from the June projection exercise. External demand for Portuguese goods and services (weighted by the structure of Portuguese exports) is projected to grow above 4% in 2017. Oil prices will rise by approximately 18% in 2017, after successive falls since 2013, with their annual average standing at around 52 US dollars. The maintenance of an accommodative monetary policy stance by the ECB contributes to the persistence of interest rates at low levels.

The main change in the projection assumptions from the previous exercise refers to exchange rate developments. The effective exchange rate of the euro (against 19 trading partners) is expected to appreciate in 2017, by a magnitude similar to that observed in 2016. The exchange rate of the euro is higher than published in the June *Economic Bulletin*, which pointed to a relative stabilisation of the effective exchange rate from 2016 and the one published in the March projections note, which assumed a depreciation. The rise in the euro effective exchange rate reflects, inter alia, the economic and political factors that have contributed to the appreciation of the euro against the pound sterling and to a smaller appreciation against the US dollar.

The public finance variables incorporate specific measures with sufficient detail in official documents, following the rules used in the Eurosystem exercises. In addition to these measures, information available until the cut-off date for the budget outturn and developments in the number of civil servants were also taken on board.

Table C.1.1 • Projection assumptions

		EB October 2017		EB June 2017	
		2016	2017	2016	2017
International environment					
World GDP	yoy	3.0	3.5	3.0	3.3
World trade	yoy	1.8	5.3	1.5	4.5
External demand	yoy	2.0	4.5	1.7	4.5
Oil prices in dollars	aav	44.0	51.8	44.0	51.6
Oil prices in euros	aav	39.8	46.0	39.8	47.6
Monetary and financial conditions					
Short-term interest rate (3-month EURIBOR)	%	-0.3	-0.3	-0.3	-0.3
Implicit interest rate in public debt	%	3.3	3.2	3.3	3.2
Effective exchange rate index	yoy	2.9	2.5	2.6	0.3
Euro-dollar exchange rate	aav	1.11	1.13	1.11	1.08

Sources: Bloomberg, ECB and Thomson Reuters (Banco de Portugal calculations).

Notes: yoy – year-on-year rate of change, aav – annual average value. An increase in the exchange rate corresponds to an appreciation of the euro. The technical assumption for bilateral exchange rates assumes that the average levels observed in the two weeks prior to the cut-off date will remain stable over the projection horizon. The technical assumption for oil prices is based on futures markets. Developments in the 3-month Euribor rate are based on expectations implied in futures contracts. The implicit interest rate on public debt is computed as the ratio of interest expenditure for the year to the simple average of the stock of debt at the end of the same year and at the end of the preceding year. The implicit rate includes an assumption for the interest rate associated with new issuances.

Public consumption is projected to grow by 0.3% in real terms in 2017. Turning to the staff costs component, developments in the number of civil servants assume the persistence of the growth momentum observed in the first half of the year. This effect is mitigated by the impact of the reduction of standard working time of public sector employees implemented in mid-2016. Moreover, a slight reduction is expected in goods and services expenditure associated, inter alia, with a decrease in expenditure with public and private partnerships of the road sector, in line with the State Budget for 2017. For the public consumption deflator growth is projected to be 2.1%, reflecting expectations about price developments and the gradual reinstatement of public sector wages in 2016.

Turning to public investment, the current estimate maintains the assumption of strong acceleration of this item in 2017, albeit less marked than the estimate included in the 2017-21 Stability Programme. Note that this variable is influenced by one-off effects associated with the sale of military equipment, which reached a particularly high amount in 2016, strengthening the projected acceleration.

Notes

1. *ECB staff macroeconomic projections for the euro area*, September 2017.

2. Intra-annual developments in the export market share remain unchanged in qualitative terms, if account is taken of Angola's impact on external demand for Portuguese goods and services. This adjustment is important given that imports by Angola are not explicitly considered in the external demand indicator calculated within the Eurosystem.

3. Box 2 'An analysis of developments in the stock of consumer durable goods in Portugal', *Economic Bulletin,* June 2017.

4. The adjustment for Angola's impact on external demand for Portuguese goods and services is important as imports by Angola are not explicitly considered in the external demand indicator calculated within the Eurosystem.

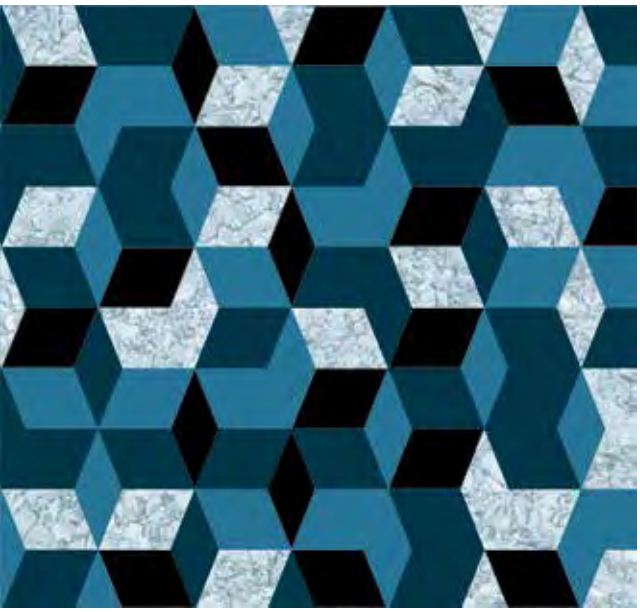
5. Box 6.1 'Developments in unit values of Portuguese exports of goods', *Economic Bulletin, May* 2017.

6. Box 5.1 'Capital per worker and productivity', *Economic Bulletin, May* 2017.

7. Dias, Daniel, Marques, Carlos Robalo and Richmond, Christine (2014), 'Resource allocation, productivity and growth in Portugal', *Economic Bulletin*, October 2014.

8. See note 1.

9. Considering the pronounced growth of tourism-related prices, the projection points to the annual change in the HICP to be higher than that of the CPI and that of the private consumption deflator.



Special Issue

International trade: gains and challenges

International trade: gains and challenges

Introduction

The sharp growth in international trade is one of the most striking developments in the world economy in the last decades and is one of the dominant components of economic globalisation. Since the 1960s, the volume of international trade and the number of trading countries have increased considerably, as a result of the increasing liberalisation of goods, services and capital flows, as well as technological progress in transport and communications. Currently, after the international economic and financial crisis that generated a collapse in trade in 2008 and 2009, there is some uncertainty about developments in international trade.

World trade growth was particularly strong from the 1990s onwards, due to increased openness of emerging and developing market economies, in particular the larger ones like China and India and those of Central and Eastern Europe. The participation of these economies in international trade boosted the geographical fragmentation of production processes on a global scale, increasing intermediate goods and services' share of trade and rising foreign direct investment flows. The importance of global value chains for the production of a large part of goods and services in the world, in a context of high financial integration, means that the current functioning of the world economy is intrinsically linked to that of trade itself (Amador and di Mauro, 2015; Baldwin, 2013).

Developments in international trade over the last few decades have led to significant gains, as posited by David Ricardo's theory of comparative advantage, which celebrates its 200th anniversary this year. However, over the last few years there has been an upsurge in criticism of international trade and a protectionist rhetoric has intensified, mainly in the advanced economies. It is therefore particularly opportune to discuss the role of international trade and to identify a set of challenges that must be overcome to ensure high levels of welfare for all participants.

Although this Special Issue does not focus on Portugal's international trade, the discussion offers important insights for it. Over the last few years, the performance of Portuguese exports has contributed strongly to output growth and job creation. Furthermore, the maintenance of equilibria or surpluses in the goods and services account is a key condition for correcting the macroeconomic imbalances in the Portuguese economy, particularly in terms of external indebtedness. As a result, any disruption to international trade resulting from the increase in tariff or non-tariff barriers would have strongly negative consequences for Portugal's economic conditions.

This Special Issue is organised as follows: the first part sets out the welfare gains from international trade from the theoretical and empirical points of view. The second part aims to identify the main criticisms behind the discontent with international trade, and discuss possible solutions. The third part argues that protectionist policies limit society's welfare and lead to an inefficient allocation of resources, and are therefore an unacceptable alternative. Finally, some results are presented on the importance of tariff barriers for Portuguese international trade.

The gains of international trade

Theoretical models

Economic literature identifies several factors promoting trade between countries, such as differences in technologies and production factor endowments, economies of scale and the fragmentation of the production chain. In theoretical

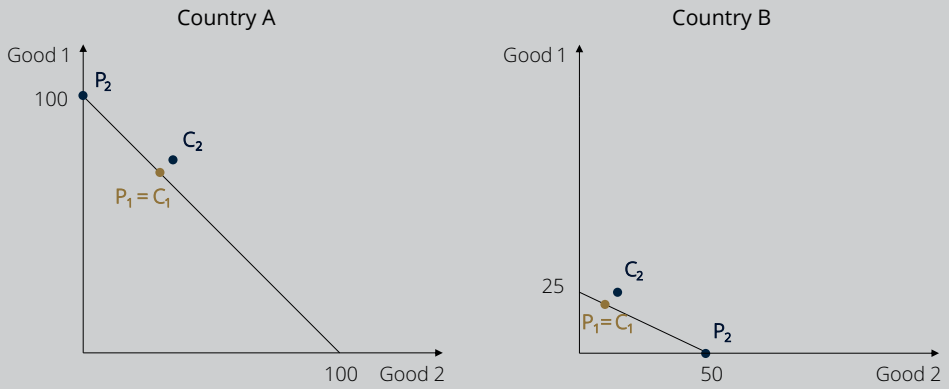
terms, the analysis of trade as a source of welfare goes back to the theory of David Ricardo (1817). The Ricardian model of trade was based on the concept of comparative advantage, demonstrating the existence of potential trade gains between two countries: even though a country may have lower labour productivity across all sectors, if both countries export the goods for which they have a comparative advantage and import the rest, there will be aggregate welfare gains. Box 1 presents a simplified explanation and an example.[1]

Box 1 | The Ricardian trade model: an example

Consider two countries (A and B), two goods and a factor of production (100 workers), without labour mobility between countries. Country A is assumed to need one worker to produce each of the goods. In country B, labour productivity is lower and differs between the sectors: four workers are needed to produce one unit of good 1, and two workers are needed to produce one unit of good 2. The possibilities of production in these two countries may be described by the lines in Chart C.1.1. When the countries are closed to trade (i.e. they are in 'autarky'), these lines also delimit the consumption possibilities in each country. Depending on consumers' preferences, each of the countries may choose to produce and consume any point along the respective possibility frontier. It is assumed, without loss of generality, that the point where consumer satisfaction is maximised in each of the countries is point C_1, where 70 units of good 1 and 30 units of good 2 in country A and 20 units of good 1 and 10 units of good 2 in country B are produced and consumed.

In this example, country A is more productive in both sectors, i.e., it has an absolute advantage over country B in the production of the two goods. David Ricardo's theory states that, even in this case, both countries may have gains if they fully specialise in producing the good for which they have a comparative advantage and import the other good.

Chart C.1.1 • Production and consumption possibilities frontiers for countries A and B



Note: (a) Points C_1 and P_1 represent the bundle consumed and produced in autarky. Points C_2 and P_2 represent the bundles consumed and produced when countries trade, respectively.

A country has a comparative advantage in producing a given good if it sacrifices fewer units of that good for each unit of the other good produced. Returning again to the example above, the relative cost of good 2 is higher in country A. Thus, to produce a unit of good 2, country A has to forego production of a unit of good 1, while country B only has to sacrifice half a unit of that good. Therefore, the conclusion is that country B has a comparative advantage in producing good 2, as it sacrifices fewer units of good 1 for each unit produced of good 2. Country A necessarily has a comparative advantage in producing good 1.

Ricardo's model shows that both countries may have gains if they specialise in the production of the good in which they have a comparative advantage. In this example, this means that country A produces 100 units of good 1 and country B produces 50 units of good 2. The two countries together now have ten more units of each good than before specialisation, which represents an overall gain. In this context of full specialisation, the countries use international trade to obtain the other good (by importing).

Assuming given preferences for the consumption of the goods in the two countries, Table C.1.1 presents an example in which both countries are able to access consumption baskets through mutual trade which would not be allowed by domestic technology – point C_2 in Chart C.1.1. With these baskets, both countries consume more of the two goods and thus both gain through trade.

Table C.1.1 • Summary of the gains from trade

	Country A		Country B	
	Good 1	Good 2	Good 1	Good 2
Production and consumption in autarky	70	30	20	10
Production with trade	100	0	0	50
Consumption with trade	75	35	25	15
Consumption increase with trade	5	5	5	5

In sum, the pivotal result of the Ricardian model of trade is that both participants in the trade benefit from it, as trade is not a zero-sum game in which for one country to win, the other must lose. Even if one country presents lower labour productivity across all sectors, both countries gain through trade if each of them specialises in producing the good for which its advantage is relatively greater – i.e. the good with comparative advantage.

Since David Ricardo's seminal contribution, the nature of international trade has changed significantly. Currently, countries trade to take advantage of the differences in technology and production factor endowments, to benefit from economies of scale in production and differentiation of products, and also in the context of firm's participation in global value chains. Economic literature has successively incorporated elements explaining each of these facets of international trade in complementary models, illustrating additional sources of long-term welfare gains for countries engaging in these exchanges.

The classical models developed at the start of the 20th century began to incorporate production technologies with two factors of production (labour and capital) and related specialisation and trade to the endowments of these factors in each country. An important result of these models is the Hecksher-Ohlin theorem which states that if we consider two identical countries in terms of technologies and preferences, each of them should specialise and export the good whose production process uses more intensively the relatively more abundant production factor. Thus, the comparative advantages root above all upon differences in the relative endowments of factors: the countries with a relative abundance in labour present a comparative advantage in labour-intensive goods and vice versa.

The so-called new international trade models (Helpman, 1981; Krugman, 1979, 1980, 1981) provide a theoretical basis explaining the trade in products belonging to the same industry (intra-industrial trade) instead of different goods. In these models, consumers favour differentiated consumption baskets (love of variety) and economies of scale are assumed to exist, i.e. the firm's average costs fall with increased production, making it optimal to concentrate the production of each variety on a single firm. These two determinants create additional welfare gains on top of those coming from trade based on comparative advantage. By promoting intra-industrial trade, each country can specialise in producing specific varieties in a larger scale and with lower costs, importing the other varieties from countries that have specialised on them and allowing consumers to benefit from a greater product scope.

The empirical evidence showing that the differences between firms are key to understanding world trade led to the proposal of the so-called 'new new' international trade models (Bernard, Eaton, Jenson and Kortum, 2003; Melitz, 2003). Unlike the previous models, which treated the sector as a unit of analysis, these models incorporate differences between firms belonging to the same sector and show the role of heterogeneity in export decisions and in explaining trade flows. This heterogeneity between firms creates a supplementary source of gains from trade given that the openness of the country leads to a reallocation of resources from the least productive to the most productive firms, thus increasing aggregate productivity.

The most recent models reflect the significant change in the nature of international trade over the last few decades, in particular the growing international fragmentation of the production process (Grossman and Rossi-Hansberg, 2008 and Antràs, 2015). In this new paradigm, the stages of the production process are executed sequentially or separately in different locations according to comparative advantages in producing the different parts and components. In turn, the final product is the result of the sequential production, or assembly may take place in a final location. Despite the complexity of these value chains, the fundamental message about the gains from trade does not change and the basic concepts continue to be valid, although at a different analytical scale. In particular, the concept of comparative advantage is applicable to each of the links in the production chain.

Empirical results

The theoretical results that indicate that international trade is an important source of benefits are generally confirmed by the empirical literature that analyses the welfare gains for consumers. The link between international trade and the growth of economic aggregates like gross domestic product (GDP) is less consensual and is

difficult to identify, both in empirical terms and by the general public. According to the European Commission's 2010 Eurobarometer survey on international trade (European Commission, 2010a), those stating that they benefited from trade attributed this to the reduced price of the products and the greater choice for consumers. In contrast, the impact on the European economy was mentioned by only one in four of those surveyed.

The empirical literature acknowledges that the reduction in prices of goods and services due to trade has brought significant gains for consumers through higher real income (e.g. Francois, Manchin and Norberg, 2007). These gains are broad-based across the entire income distribution, but tend to be higher for households with a lower income, as they spend a greater proportion of their income on tradable goods and services, such as food products. In a recent study, Faijgelbaum and Khandelwal (2016) quantify these gains across the income distribution for a set of 40 advanced economies. The authors conclude that, on average, the real income of the population in the bottom decile of the income distribution would be 63% lower if there was no trade, compared to 28% for the top decile of the distribution. For Portugal, the bias in favour of households with lower incomes is slightly higher (67% and 22% respectively).

The literature has also tried to quantify the gains for consumers that result from having a greater variety of goods and services at their disposal. A much-quoted study in this field is that of Broda and Weinstein (2006), which estimates that the number of varieties of imported products at the disposal of the US consumer quadrupled between 1972 and 2001, creating a welfare gain of 2.6% of GDP. Applying this result to the European context, the European Commission (2010b) suggests that these gains benefit the European average consumer by around EUR 600 per year. For Portugal, Cabral and Manteu (2010) estimate that in 2007 consumers were prepared to pay 0.7% of GDP to access the set of varieties of imported goods available in that year instead of the basket available in 1995.

In contrast, one of the questions that has led to intense debate in the literature is the link between international trade and economic growth. Although the two variables seem to be positively correlated (Chart 1), it is extremely difficult to identify a causal relationship and its direction, as there are many factors that are difficult to isolate, which may simultaneously affect external trade and economic growth. Even so, in general, the level of participation in international trade became a relevant dimension for long-term economic growth in most analyses

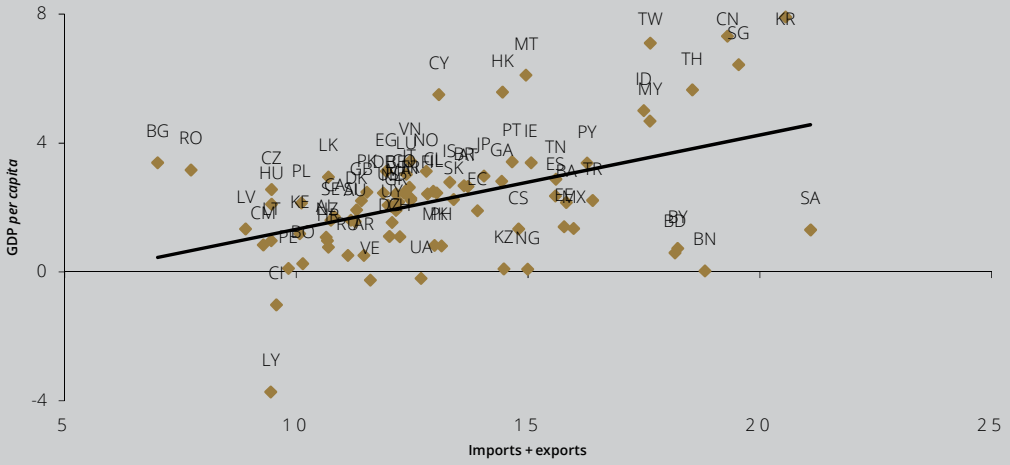


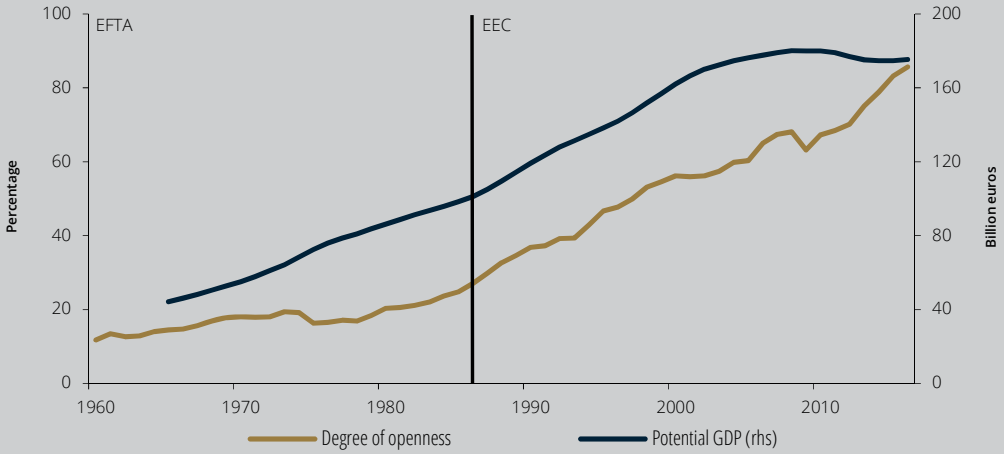
Chart 1 • Annual growth rate of GDP *per capita* and trade of goods and services in 1970-1995 | Percentage

Source: CEPII-CHELEM database (Banco de Portugal calculations).

(e.g. Baldwin, 2003; Feyrer, 2009; Frankel and Romer, 1999; Sala-i-Martin, 1997).

In Portugal, international trade has played an important role in explaining the long-term trajectory of economic growth. Although many factors have contributed to developments in the Portuguese economy and international trade over the last few decades, important turning points include accession to the European Free Trade Association (EFTA) in 1960 and to the European Economic Community (EEC) in 1986 (Chart 2). Following these agreements, exports rose significantly, above all in the labour-intensive sectors in which Portugal had a comparative advantage (Amador, 2017). This industrial development coincided with high economic growth rates, which contributed to a convergence of per-capita GDP to the European average (Chart 3). In the early 2000s, as a member of the European Union, Portugal faced a strong wave of global trade liberalisation. However, this time its performance was less favourable, reflecting difficulties in adjusting to the new features of international trade.

Chart 2 • Degree of openness and potential GDP in Portugal

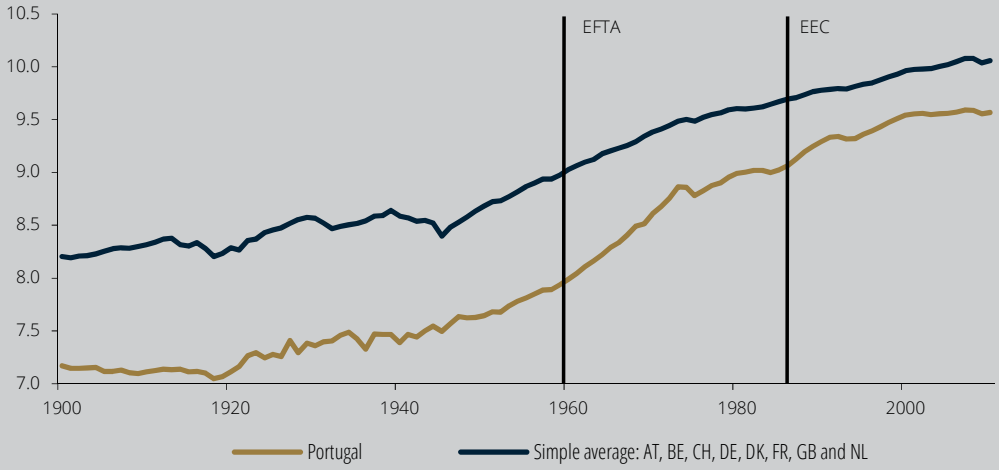


Source: AMECO database (Banco de Portugal calculations).

Note: (a) The degree of openness is calculated as the ratio of the sum of exports plus imports at 2010 prices to GDP at 2010 prices.

Chart 3 • GDP *per capita*

| Geary-Khamis dollars (Int. GK$), logarithmic scale



Source: Maddison Project database (Banco de Portugal calculations).

Challenges to international trade

If international trade is a source of welfare gains, why is it criticised? In particular, what is worrying the general public? When shocks affect the determinants of international trade, workers and other factors of production have to be reallocated between enterprises and sectors in the economy, which normally creates a group of losers. In this context, the most frequent criticisms of trade relate to the impact on the labour market, namely job creation and destruction and wage changes (European Commission, 2010a). International trade's impact on the labour market results from the change in the activity level of the different sectors. The sectors where the country has a comparative advantage are expected to increase their activity and employment, and if there is no excess supply of skills required there, wages may increase. In contrast, in the sectors where there is no comparative advantage, activity and employment will tend to decline, as imports replace domestic production of those goods and services. The jobs lost in these sectors, as well as the reduction in wages linked to these skills, are difficult to recover unless the firms start profound restructuring processes. Transformations such as these involve the development and production of new products or varieties, in which there are comparative advantages.

In the new paradigm of global value chains, the tensions and criticisms surrounding international trade in the advanced economies are closely linked to the relationship between the stages of the production process and the value added in each one of them. Empirical research indicates that the initial and final stages of the production chain normally add more value than the intermediate stages. For example, research and engineering linked to creative and highly qualified labour tend to be responsible for a significant part of the value of the final product. Something similar happens in marketing and distribution. In contrast, the more repetitive tasks or those linked to manufacturing make a lower contribution to the final value of the product. Chart 4 presents a stylised depiction of the asymmetry in value added creation across the different stages of the production process, called the smile curve (Baldwin, Ito and Sato, 2014).

The comparative advantages in each of the production tasks depend on the quantity and quality of the different inputs and the technology available in each country. In particular, the growth of global value chains was based on a model in which the intermediate tasks are predominantly located in a set of countries with relatively low wages and to which the firms transfer the manufacturing technology. The advanced economies, which are better endowed with skilled human resources, have retained a large part of initial and final tasks in the production process. This has allowed average wages in the emerging economies to increase, creating jobs in manufacturing which absorb workers exiting the primary sector to the urban zones. The counterpoint to this has been the loss of certain types of jobs in the advanced economies' manufacturing sector, normally the positions requiring lower qualifications, with the consequent fall in relative wages among these workers. Such developments help explain why attitudes towards trade in the advanced economies are less favourable among workers with less education, as illustrated by the European Commission's Eurobarometer survey (European Commission, 2010a).

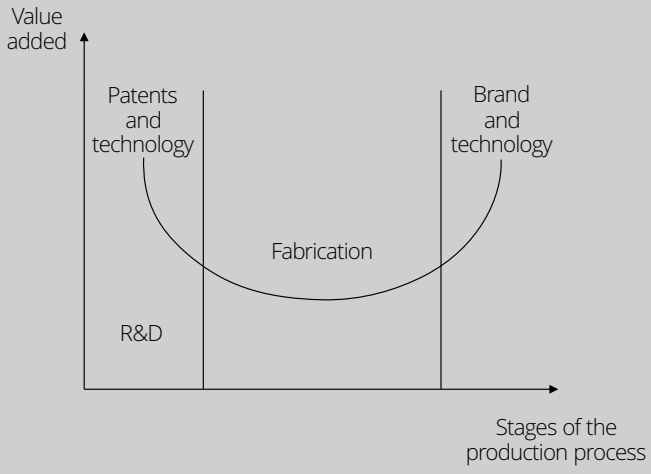
The elements of flexibility in the economy take on great significance in mitigating the adjustment costs arising from international trade. First of all, the capacity of the unemployed to find jobs in the sectors that expand, which is normally correlated with their education level, is a key element in this process. Prolonged unemployment leads to the loss of social skills, which deepens difficulties in returning to employment. In this scenario, individuals permanently leave the working population, with very

high social and economic costs. Thus, policies targeted at educating and re-training the labour force play a key part in responding to the challenges posed by international trade. Secondly, insolvency procedures that recover the capital of firms leaving the market facilitate the adjustment. Finally, there are various costs, including framework costs relating to the functioning of the product's market, and the costs of compliance with legislation and public services operations, which must be reduced in order to promote the creation of firms, as well as their activity and restructuring.

Developments in the Portuguese economy over the last few decades are a good illustration of the challenges posed by the changes in the pattern of comparative advantages linked to technology shocks, the entry or exit of countries in the international trade system or protectionist policies. The comparative advantage pattern was strongly affected by China's integration into international trade and by the restructuring of the economies of Central and Eastern Europe after the fall of the Berlin Wall, along with their subsequent membership of the EU. On the one hand, Asian competition has affected the performance of exports in the traditional sectors, while the new EU Member States have attracted foreign direct investment in the medium-tech sectors. As a result, Portuguese exports lost market share, and the goods and services account deficits increased. Beyond the deterioration of the external accounts due to higher imports linked to buoyant domestic demand, in a low interest rate, expansionary and pro-cyclical fiscal policy environment, the difficulty in adjusting the Portuguese specialisation pattern led to strong macroeconomic imbalances. However, albeit slowly, the Portuguese economy began a process of restructuring and reallocation of resources which continues to the present day, based on notable entrepreneurial buoyancy, both in the traditional sectors and in new sectors.

International trade has also made an important impact on the distribution of income and wealth within each country. Indeed, the fall in employment in the tasks requiring lower qualifications in the advanced economies affects a significant proportion of the population and has increased inequality, leading to social and political tensions. These issues have earned increasing attention from the authorities, as well as from academia. It is generally accepted that greater levels of inequality make it harder to maintain social cohesion, as it not only complicates the approval of the reforms needed, but it also reverts market liberalisation. In parallel with the drive to re-train

Chart 4 • Value added at the different stages of the production process



the labour force, with a view to acquiring the skills valued by the market, mitigation of these problems should be based on redistribution policies that compensate the groups affected. Given that international trade creates net gains for each country, this redistribution of internal gains could make all agents better off. However, there are difficulties in implementing these policies as the right response depends on the specific nature of the shocks and the mechanisms involved, and the mobility of workers between firms, industries and regions. Failure to respond leads to protests and the emergence of different variants of populism (Rodrick, 2017).

There are other criticisms directed at international trade aside from those related to the labour market and the increase in inequality in advanced economies. They relate, for example, to trade's adverse impact on the environment and the abusive practices of transnational firms towards their workers in emerging market economies. In these cases also, the solution must involve the direct correction of market failures and not the introduction of limits on trade. Environmental issues link with the existence of externalities that arise because the final price to the consumer does not incorporate environmental costs and must be corrected with specific policies that a posteriori may or may not reduce international trade. Firm's abusive practices must be controlled by means of international certification or through legislation, along with penalties for non-compliance.

Although in practice it may be difficult to implement the policies needed to address the challenges associated with international trade and mitigate the resulting adjustment costs, this option is nevertheless preferable to imposing barriers to trade that unequivocally reduce overall welfare.

The costs of protectionist policies

Criticism of international trade has contributed to a stronger defence of policies favouring the restriction of flows of goods and the support of domestic producers. This approach is based on the idea that domestic production should replace imports, in order to create jobs and increase wages for domestic workers.

Bastiat (1845) illustrates the problems associated with protectionist policies in a simple and intuitive way, using a satirical example of a petition to prohibit the use of sunlight during the day. The goal would be to protect jobs in the domestic artificial illumination industry from competition by a 'rival' which 'inundates the domestic market with incredibly low prices' – the sun. It is easy to see that while this imposition may favour the artificial illumination industry over the short term, it would also lead to significant welfare losses for society. In particular, consumers would be seriously harmed through not being able to benefit from sunlight and from having to use alternatives with infinitely higher prices. Farmers and other producers that use sunlight as a factor of production would also be harmed, with negative repercussions on employment.

Analogously, when a tariff or quota is set on imports, it creates a distortion that tends to lead to a reduction in society's welfare. For consumers, these policies tend to increase prices, both on imported goods and on internally produced goods, which means a loss of welfare for these agents. One of the studies illustrating the high costs that tariffs pose to the public due to higher prices is the work of Hufbauer and Lowry (2012). According to these authors, the increase in the tariffs imposed by the United States on tire imports from China between 2009 and 2011 helped protect 1200 jobs. However, the cost to consumers to protect each of the jobs through higher prices came to USD 900,000 per year, which is 22 times more than the average annual salary for these workers. The welfare losses linked to the creation of barriers to imports tend

to be relatively sharper for low income households, not only because they spend a higher proportion of their income on tradable goods, but also because products with lower prices tend to have higher tariffs (Furman, Russ and Shambaugh, 2017).

For producers, although the increase in prices driven by protectionist policies may incentivise activity in the protected industries, domestic producers that use those goods as inputs tend to be harmed. The increase in the price of intermediates also tends to make domestic firms less competitive in the international market, which may have an adverse effect on their exports and on employment. This issue is particularly relevant in a world characterised by global value chains, in which goods and services combine factors of production from different countries. In the case of Portugal, Amador and Stehrer (2014) estimate that the imported content of exports in 2011 was around 30%. This suggests that any disruptions to Portuguese imports may have very negative consequences for exports, which have performed a crucial role in the Portuguese economy. These negative effects may also be sharper when protectionist policies lead to retaliation by other countries.

In a world that is changing fast and that is highly competitive, it is relevant to discuss whether public authorities should use protectionist policies towards certain products, firms or sectors over a limited period, with the goal of promoting growth and competitiveness in the medium term. The suggestion is that these policies may be a solution to problems faced by firms that are not competitive internationally but that may become so if they have temporary protection, allowing them to grow and become more efficient.

A first problem with this solution relates to the criteria used by public entities in their choice of products, firms or sectors to be protected. There is some evidence suggesting that these policies tend to be used to protect unproductive sectors or industries, which lead to an incorrect allocation of resources in the economy with adverse consequences for growth (e.g. Beason and Weinstein, 1996; Gawande, Krishna and Olarreaga, 2005).

In addition, there is a risk that protected firms never become competitive, prolonging these policies indefinitely and involving very high costs for consumers. Luzio and Greenstein (1995) show these costs through the example of prohibition on computer imports and the ban on foreign enterprises in Brazil between 1984 and 1988. The authors show that these policies did not reduce the technology gap between the Brazilian firms and those of the rest of the world, and in parallel, the national consumer faced prices between 70% to 100% higher than those of the international markets.

In sum, imposing barriers on imports as a way to respond to the challenges of trade reduces society's welfare and promotes an inefficient allocation of resources. Imports are a key element of trade relations, both as a response to the consumption aspirations of the population, and through the intermediate products incorporated in national production destined for the domestic market or for export. Even so, protectionist policies often prevail, as their costs are difficult to identify and fall mainly on consumers, a large, disparate group, while their benefits tend to be focused on small and well-organised groups. In fact, political economy issues play a key role in explaining the difficulties in overcoming the challenges posed by international trade.

Tariff barriers in Portuguese international trade

The Portuguese economy's international trade that takes place within the EU accounts for about three quarters of the total.[2] As the European space is a leading light in terms of freedom of trade, the impact of trade barriers on Portuguese consumers and firms is relatively limited. Regarding trade with extra-EU countries, the common external tariff adopted by the EU applies, along with a set of barriers to trade imposed by third countries on products originating from EU countries.

In order to illustrate the impact of trade barriers on domestic agents the World Integrated Trade Solution's Tariff database, with information on tariffs in force in international trade, and data on Portuguese goods imports and exports from the UN Comtrade database were used.[3] These data help calculate the effective tariff implicit in extra-EU trade of Portuguese goods.[4] Because of data availability constraints, the most recent years for which this calculation is possible are 2014 for imports and 2015 for exports. Nevertheless, the applicable tariff rules and trade structure tend to be very stable, so comparison between effective tariffs implicit in the 2014 imports and 2015 exports is possible. It should be noted that many barriers to trade are unrelated to tariffs, arising instead from regulations on goods or international operators. However, these non-tariff barriers are difficult to quantify by nature and are not analysed in this Special Issue.

On the imports side, tariffs have a low impact on domestic economic agents, such that consumers and firms do not see large increases in the prices of the main products bought in the extra-EU markets due to the imposition of tariffs by the EU. Chart 5 presents the share of total extra-EU imports held by the ten main products imported

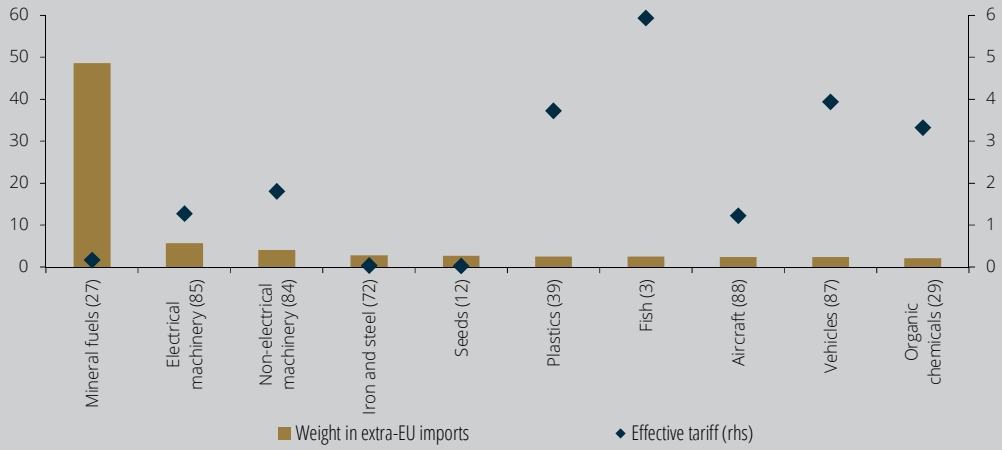


Chart 5 • Main extra-EU Portuguese imports in 2014: weight and effective tariff | Percentage

Sources: UN Comtrade Database and World Integrated Trade Solution's Tariff Dataset (Banco de Portugal calculations).

Note: (a) Numbers in brackets refer to the classification of products according to the 2-digit level decomposition of the 2012 edition of the Harmonized Commodity Description and Coding System. The description of the products was abbreviated.

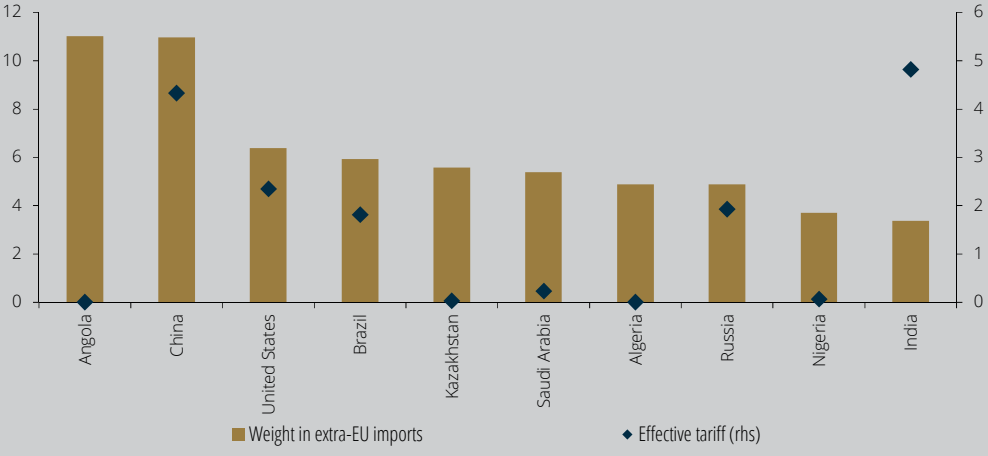


Chart 6 • Main countries of origin of extra-EU Portuguese imports in 2014: weight and effective tariff | Percentage

Sources: *UN Comtrade Database and World Integrated Trade Solution's Tariff Dataset* (Banco de Portugal calculations).

from non-EU countries and their respective average tariffs in 2014. The main imported product was fuel and the tariff on these goods was extremely low. Products like plastic, fish or motor vehicles had higher effective tariffs (between 3% and 6%), but their share of imports is low. The structure of extra-EU trade reflects on the average tariff applied to the countries of origin of Portuguese imports (Chart 6). Naturally, the average tariff on the countries from which Portugal mainly imports fuel was extremely low. Indeed, in the case of Angola, the near-zero average tariff arises from the fact that mineral fuels represent almost all imports from that country and have an effective tariff of virtually zero. For countries like China, in which the import basket is more diverse, tariffs were relatively higher (between 1% and 5%).

The average tariffs imposed on extra-EU exports of products from Portugal (and from other EU countries) tend to be higher, which limits domestic firms' ability to penetrate those markets. The average tariff applied to the main product exported in 2015 – electrical machinery – was 5%, which is 3 percentage points higher than the tariff applied to imports of the same product in 2014 (Chart 7 and Chart 5). Beverages, with a 3% share of extra-EU Portuguese exports, recorded the highest tariff of the set of ten main exported products (21%), compared to a tariff of 3% applied to imports of these products in 2014. Average tariffs adopted by the main destination countries of extra-EU exports are higher than those applied by the EU on their suppliers, although they reflect different trade baskets. For example, Angola and China apply average tariffs on Portuguese exports of 15% and 12% respectively (Chart 8).

Changes to the tariffs in force in international trade, while small, may have a significant impact on the production structure and the external account balance in the short and medium term, even when implemented progressively. Therefore, negotiating reductions in the tariffs imposed on EU products in external markets would be positive, but recent developments seem to be heading in the opposite direction.[5] An obvious example is the exit of the United Kingdom – the fourth largest destination for Portuguese goods exports in 2016 and the sixth largest supplier of goods – from the free trade space of the EU. Furthermore, the uncertainty over this exit process and the trade policy of the United States have clearly negative effects. The instability of the rules increases the frequency of the sectoral readjustments, which are particularly onerous for economies with structural fragilities, like Portugal.

Chart 7 • Main extra-EU Portuguese exports in 2015: weight and effective tariff | Percentage

Sources: UN Comtrade Database and World Integrated Trade Solution's Tariff Dataset (Banco de Portugal calculations).

Note: (a) Numbers in brackets refer to the classification of products according to the 2-digit level decomposition of the 2012 edition of the Harmonized Commodity Description and Coding System. The description of the products was abbreviated.

Conclusion

International trade has made a very positive impact on global welfare over the last few decades. In particular, consumers have benefited from the broader variety and the reduction in price of goods and services.

However, the disruption of international trade arising from the participation of new countries or of technological developments has led to difficult and often prolonged adjustments for specific groups of the population. With low global economic activity growth, as observed over the last few years, these adjustments have led to the resurgence of criticism towards international trade, mainly in the advanced economies.

This criticism arises from real problems, such as the high levels of unemployment, the increase in inequality in wealth distribution or the damage to the environment. However, the solution to these problems involves the creation of mechanisms that ease the adjustment and not the imposition of barriers to trade that unequivocally reduce global welfare. In the specific case of Portugal, an increase in protectionism would seriously harm the domestic economy. The structural weaknesses that persist in the Portuguese economy turn the adjustment of the productive structure to new competitive contexts more difficult. Furthermore, exports have played a key role in output growth and the correction of the external imbalance.

In the future, the challenges to international trade may take on new guises. In particular, there is serious concern that advances in automation might accentuate the challenges in the labour market (Autor, 2015). Following the developments of the last few decades, the adoption of autonomous and smart technologies will tend to intensify the loss of jobs in intermediate tasks of the production chain and to amplify the comparative advantage of workers executing creative and skilled work (Baldwin, 2016). The responses to these challenges are not evident, but it seems clear that, in parallel with the boosting of the policies to educate and re-train workers, there must be a means of redistributing wealth between the affected population groups.

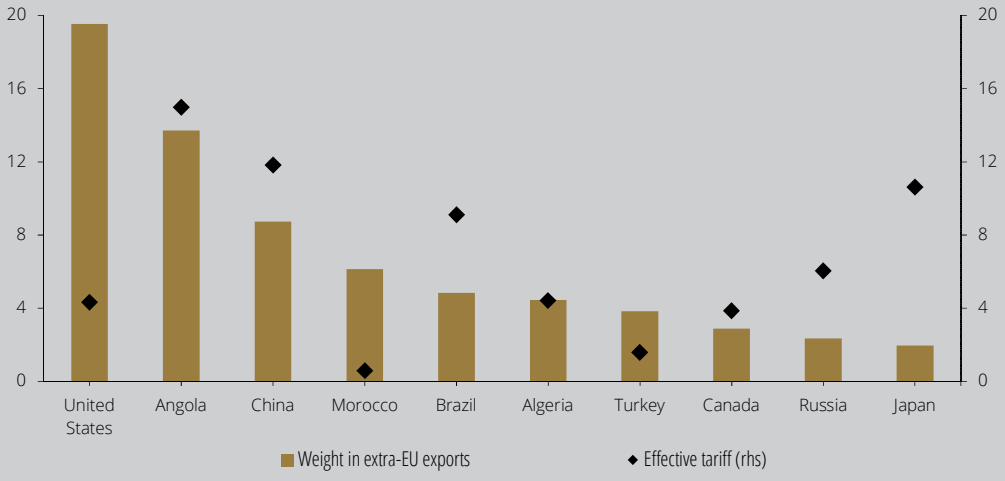


Chart 8 • Main countries of destination of extra-EU Portuguese exports in 2015: weight and effective tariff | Percentage

Sources: UN Comtrade Database and World Integrated Trade Solution's Tariff Dataset (Banco de Portugal calculations).

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Notes

1. For a more detailed analysis of this model, see Krugman, Obstfeld and Melitz, 2012.

2. In 2016, intra-EU imports held a 77.7% share of total Portuguese goods imports. For goods exports, the figure was 75.2%.

3. The World Integrated Trade Solution's Tariff database reports equivalent ad valorem tariffs, following the UNCTAD methodology.

4. The implicit effective tariffs are calculated based on values paid at country/product level (based on disaggregation to six digits of the Harmonised System of 2012) and the total trade flow to the country/product pair. The subsequent aggregations at country and product level were based on shares of trade flows. Although there are some flows for which necessary information for calculating the effective tariff is unavailable, the database's coverage level is high (98% on imports and 88% on exports).

5. There are exceptions to the deceleration of trade liberalisation. Two recent examples are the Comprehensive Economic and Trade Agreement between the European Union and Canada, and the agreement in principle on the EU-Japan Economic Partnership Agreement, both of this year.