

ECONOMIC BULLETIN



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I Projections for the portuguese economy: 2020-2022

Box 1 An assessment of projections for 2019

1 Introduction

The outlook for the Portuguese economy has undergone a sudden, marked deterioration as a result of the COVID-19 pandemic and is surrounded by considerable uncertainty. Considerations on the impact of the pandemic on public health are naturally prevalent and prioritised in the public debate. The pandemic also corresponds to an adverse economic shock, with very substantial – and potentially long-lasting – effects on the well-being of citizens and business activity.

The current situation has no recent historical precedent and is characterised by a serious lack of knowledge as to the economic impact of the pandemic. This context combines various new elements that exacerbate the uncertainty and complexity underlying this projection exercise.

First, the pandemic transmission channels combine effects associated with supply and demand decisions in the economy. These effects are interlinked and mutually reinforcing. On the supply side, most notable is the reduction of hours worked owing to sickness, family care or quarantine, as well as the potential destruction of productive capacity due to the closing down of businesses or the interruption of global value chains. On the demand side, the postponement of consumption and investment expenditure stands out, amid increased uncertainty and heightened risk aversion of economic agents. The high volatility and heightened aversion to risk in financial markets may also translate into tighter financing conditions for households and firms. Finally, the fact that the pandemic is synchronised and broadly based across a great number of countries should tend to intensify the fall in economic activity, due to the collapse in world trade flows, most notably tourism.

Second, the magnitude and duration of the adverse economic shock hinge on the policies adopted by the authorities. These policies aim to ensure the best response of governments in terms of public health while mitigating the economic impact of the spread of the virus and the adoption of measures limiting interaction between individuals. In this context, in addition to greater monetary accommodation as announced by the main central banks, governments in most affected countries have adopted measures to support the economy, including reinforcing social protection, measures to support labour and corporate income, and the increased provision of healthcare goods and services. The impact of these policy measures is difficult to gauge and will depend on its precise specification and the scale of eligible situations, as well as how announcements are interpreted by the markets and economic agents as a whole.

Third, the typical persistence of macroeconomic aggregates in response to exogenous disturbances, as well as the relative predictability of the aggregate behaviour of economic agents – key elements in the econometric models used in projection exercises – are disrupted in the current scenario of pandemic and general domestic confinement. The rapid spread of the pandemic, the changes to its geographical layout and the succession of containment and mitigation measures imply that the assumptions underlying the estimation of the economic impact of the outbreak may change quickly. At the same time, the exercise's technical assumptions, more specifically those related to oil prices, have been affected by the turmoil in this market due to decisions made by large producing countries, with impacts interacting with those of the pandemic crisis.

The heightened uncertainty underlying this projection horizon, due to the combination of the various aspects aforementioned implies that at this stage it is not possible to produce projections

representing a scenario deemed most likely. In this context, two scenarios are presented, to frame the effects arising from the pandemic, on the basis of the quantitative information available up to 12 March and taking into account the latest developments: a baseline scenario and an adverse scenario (Table I.1.1). Both scenarios foresee a recession in the Portuguese economy in 2020, but differ in the magnitude assumed for the economic impact of the pandemic worldwide. It is assumed that the peak of this impact will occur in the second quarter of this year and that the situation will gradually normalise from the second half of 2020 onwards. The profile of economic activity in Portugal is in line with developments worldwide and, in particular, in the euro area. The scenarios take into account the potential impact of the policies already adopted by national and European authorities in response to this shock. The magnitude of the recession and the profile of the subsequent recovery crucially hinge on the policy response, which has been successively reinforced at national and global level.

In the baseline scenario, real GDP is estimated to decrease by 3.7% in 2020 (Table I.1.1). Economic activity is expected to contract in the first half of the year – with a particularly marked fall in the second quarter – and to return to a growth path only in the latter part of the year. The economic impact of the pandemic takes into account the effects stemming from disruptions in global supply chains, persistent high uncertainty and turmoil in international financial markets, as well as the loss of installed capital in the various economies. In this baseline scenario, it is assumed that the measures taken by economic authorities are effective in containing the damage to the economy. For subsequent years, economic growth is still expected to be relatively weak in 2021 (0.7%), but to recover more considerably in 2022 (3.1%). The impact of the crisis is of a very persistent nature, and the return of GDP levels to the path projected in December 2019 is not observed (at the end of the horizon, GDP levels are estimated to stand approximately 4.5% below those projected in the previous Bulletin) (Chart I.1.1). The unemployment rate is expected to interrupt the downward trend seen over the past few years, rising to 10.1% in 2020 and very gradually decreasing in the course of the period 2021-22 (Chart I.1.2). Such developments in unemployment crucially hinge on the configuration and magnitude of measures to support firms and households to be immediately implemented, so as to mitigate the destruction of production capacity in the economy, which will inevitably take place during the pandemic. The current and capital account balance is estimated to remain in surplus over the projection horizon, benefiting from gains in terms of trade arising from oil price decreases. The uncertainty about inflation projections is intensified by the nature of the shock, affecting aggregate demand and supply and involving substantial changes in relative prices. It is assumed that a downward effect on prices will prevail, implying that the inflation rate will remain at low levels over the entire projection horizon.

In the adverse scenario, the worldwide economic impact of the pandemic is presumed to be more substantial. In it, a more prolonged halt in economic activity in several countries is projected, resulting in greater capital destruction and job losses. The increasing number of economies affected by the pandemic generates greater disruptions in global value chains and reinforces already high uncertainty. Consequently, underlying the adverse scenario is greater financial market turmoil, only partially mitigated by economic policy action. Under these circumstances, the Portuguese economy is expected to experience a deeper recession, with GDP dropping by 5.7% in 2020 (Table I.1.1). In subsequent years, economic activity recovers, growing at a rate above that estimated in the previous scenario (Chart I.1.1). Compared with the baseline scenario, the unemployment rate is projected to rise more markedly in 2020, and in spite of the reduction expected for the following years, it

should remain at higher levels (Chart I.1.2). Turning to the current and capital accounts, surpluses of a similar magnitude to those of the previous scenario are projected. In the adverse scenario, the inflation rate is close to zero in 2020 and increases slightly in the following years, standing below the levels discussed in the baseline scenario.

Table I.1.1 • Projections of Banco de Portugal: 2020-22 – Baseline scenario and adverse scenario
| Annual rate of change, per cent (except where stated otherwise)

	In % of GDP 2018	EB march 2020						
		2019	Baseline scenario			Adverse scenario		
			2020 ^(p)	2021 ^(p)	2022 ^(p)	2020 ^(p)	2021 ^(p)	2022 ^(p)
Gross Domestic Product	100	2.2	-3.7	0.7	3.1	-5.7	1.4	3.4
Private consumption	65	2.3	-2.8	1.4	2.9	-4.8	1.8	3.7
Public consumption	17	0.8	2.1	-1.3	1.0	3.0	-2.0	1.1
Gross fixed capital formation	18	6.4	-10.8	2.9	7.9	-14.9	3.4	9.3
Domestic demand	100	2.8	-3.6	1.2	3.4	-5.5	1.4	4.2
Exports	44	3.7	-12.1	4.2	5.5	-19.1	7.4	5.6
Imports	43	5.2	-11.9	5.5	6.2	-18.7	7.5	7.4
Employment ^(a)		0.8	-3.5	0.7	1.8	-5.2	1.2	2.8
Unemployment rate (level, %)		6.5	10.1	9.5	8.0	11.7	10.7	8.3
Current plus capital account (% GDP)		0.9	2.0	2.4	1.3	2.0	2.9	1.4
Trade balance (% GDP)		0.4	1.0	0.6	0.2	1.0	1.0	0.3
Harmonized index of consumer prices (HICP)		0.3	0.2	0.7	1.1	-0.1	0.5	0.7

Sources: Banco de Portugal and INE. | Notes: (p) – projected. (a) Total employment, in number of persons according to the National Accounts concept.

In the two alternative scenarios, projections for GDP growth in 2020 reflect substantial downward revisions from those presented in the December 2019 issue of the *Economic Bulletin* (Chart I.1.1). These downward revisions stem from the inclusion of the estimated impact of the pandemic, which widely exceeds the slightly positive effect arising from the upward revision of activity growth in the fourth quarter of 2019 (Box 1 – An assessment of projections for 2019).¹ Projections for inflation are revised downwards from the December 2019 exercise, while the path projected for the unemployment rate is revised upwards (Chart I.1.2). Turning to the external balance, the scenarios considered here incorporate higher surpluses than those considered in the previous Bulletin, reflecting smaller goods account deficits – largely associated with oil price assumptions. With regard to the services account, surpluses are projected to be lower, against a background where this type of flow is particularly affected by the crisis.

Uncertainty surrounding these scenarios is exacerbated, given the recent developments in the pandemic, the containment measures adopted by most countries, the high degree of financial market turmoil and the policy measures which have been successively reinforced across jurisdictions. It should be noted that, given the starting point and the uncertainty surrounding the crisis under way, even more adverse scenarios cannot be excluded. The pandemic has emerged during a downward phase

1. GDP growth in the fourth quarter of 2019 exceeded that anticipated (by 0.3 p.p.), which entailed a positive carry-over effect of around 0.1 p.p. for the annual growth rate in 2020.

in the business cycle and fragilities associated with high levels of public and private indebtedness still persist in several economies. Furthermore, recessions typically involve a gradual deceleration in activity that is not fully synchronised across sectors and countries, which allows for some mitigation of their effects. In turn, the crisis under way involves a broadly-based, abrupt halt in activity worldwide, which enhances its disruptive potential.

Chart I.1.1 • Real gross domestic product | Index (2018=100) and annual rate of change, per cent

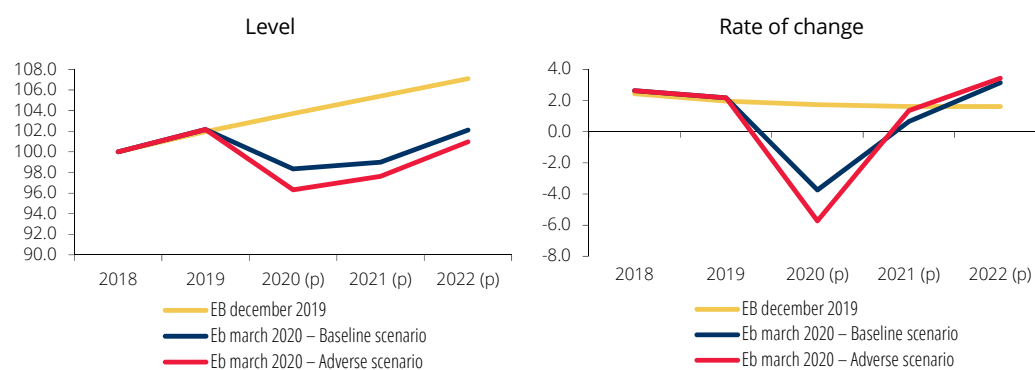
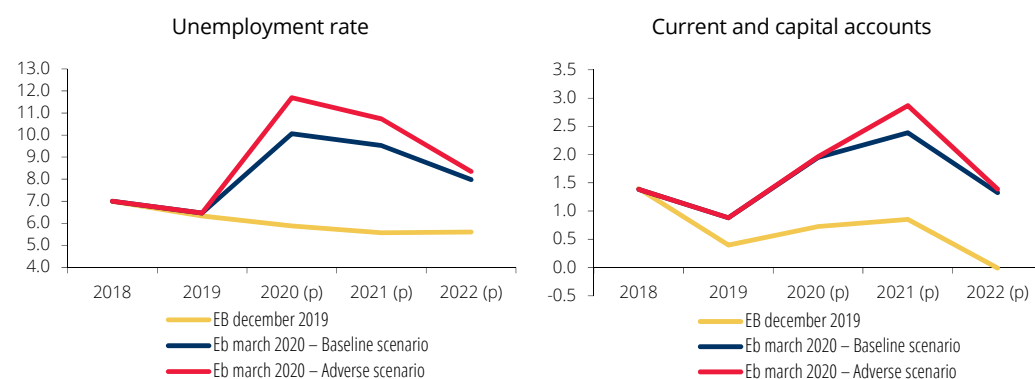


Chart I.1.2 • Unemployment rate and current and capital account balance | As a percentage of the labour force and GDP

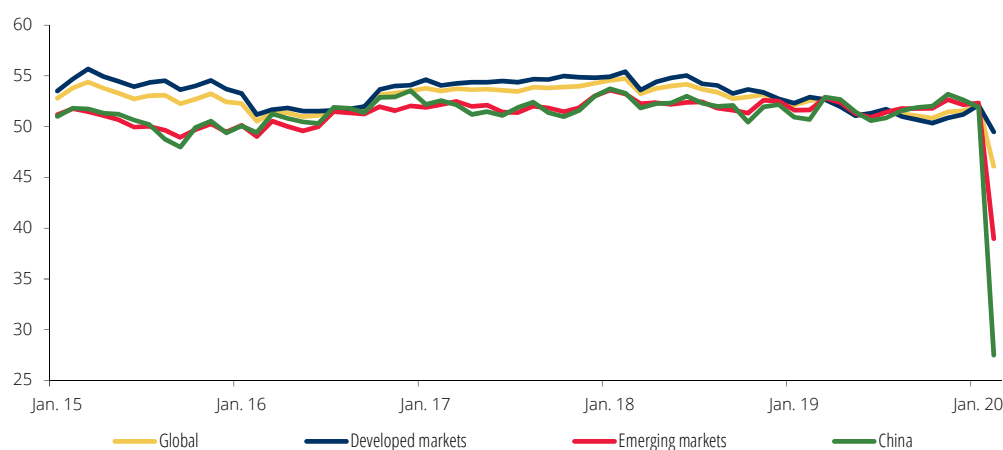


2 External environment and technical assumptions of the projections

The outbreak of the novel coronavirus – which originated in China and soon spread across a growing number of countries – is a major negative shock on the world economy. Given that the pandemic is recent and has unfolded at a rapid pace, not many quantitative data are available to allow for an accurate assessment of its economic impact. On the basis of survey responses, available evidence suggests a substantial slowdown in activity in China and, overall, in other Asian economies. Purchasing Managers' Indices (PMIs) for advanced economies suggest some deterioration in activity both in the services and the manufacturing sectors in February, but these readings have not yet captured

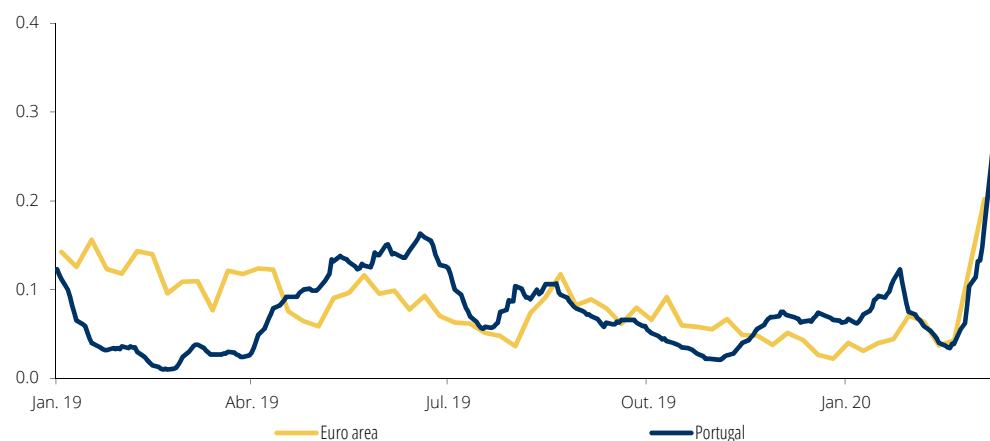
the full impact of the pandemic (Chart I.2.1).² The impact is also noticeable in financial markets, where instability has recently increased (Chart I.2.2). Stock market indices have experienced steep, broadly-based declines, hit by concerns about the effects of the novel coronavirus pandemic and exacerbated by oil market turmoil. Oil prices have been on a downward trend since early 2019, intensified from end-February onwards by the discord between Russia and OPEC regarding production cuts, which were aimed at mitigating the effect on prices of lower demand stemming from the pandemic. On 12 March, oil prices stood at USD 31 per barrel, i.e. over 50% lower than the levels observed at the end of 2019 (Chart I.2.3).

Chart I.2.1 • Composite Purchasing Managers' Index (PMI) – Global and regions | Diffusion index



Source: HIS Markit. | Note: The composite PMI aggregates both manufacturing and services sector indices.

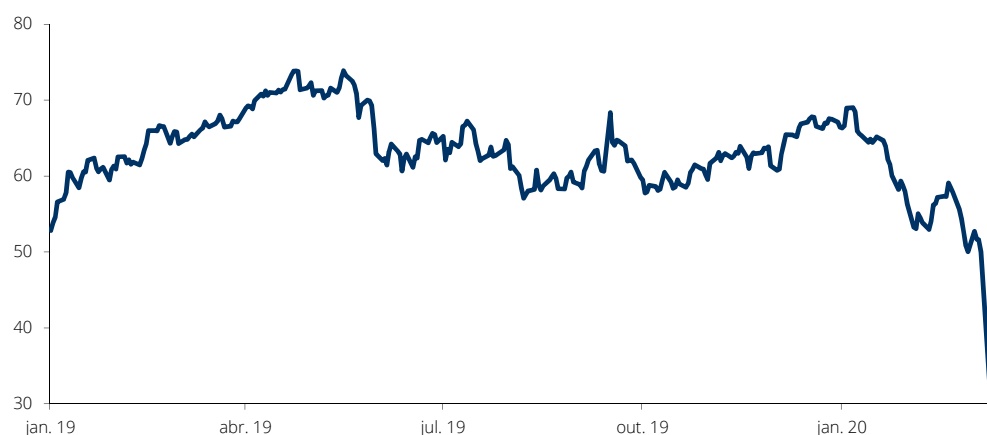
Chart I.2.2 • Composite financial stress indicator – Portugal and euro area | Index (0-1)



Sources: ECB and Banco de Portugal. | Notes: The composite financial stress indicators for Portugal and the euro area are calculated by aggregating stress indicators for five market segments: money market, bond market, equity market, financial intermediaries and foreign exchange market. For more information on these indicators, see Braga, J., Pereira, I. and Reis, T., 2014, "Composite indicator of financial stress for Portugal", *Financial Stability Papers*, No 1, Banco de Portugal, and Holló, D., Kremer, M., and Lo Duca, M., 2012, "CISS - A Composite Indicator of Systemic Stress in the Financial System", *Working Paper Series*, No 1426, ECB. Latest observation: 12 March.

2. However, a negative effect is already emerging from responses referring to new export orders and supplier delivery times, reflecting the repercussions of the shock on economic activity in China.

Chart I.2.3 • Oil prices | In US dollars



Source: Bloomberg. | Note: Latest observation: 12 March.

As usual, the projections released in this Bulletin are based on a range of assumptions for the external framework of the Portuguese economy. Typically, these assumptions correspond to the most recent projection exercise of the European Central Bank (ECB), published approximately two weeks prior to the release of Banco de Portugal's March projections.³ However, the projections recently published by the ECB incorporate a minor, temporary shock caused by the pandemic on the world economy – based on the assumption that the outbreak would essentially be confined to China and have limited global repercussions – and did not reflect recent developments in oil prices. Given the very significant change in the outlook for the world economy and in market conditions in recent weeks, it was decided to update the assumptions for the international environment. These assumptions are based on two scenarios for the world economy – baseline and adverse –resulting from the simulation of a series of shocks associated with the increased intensity and geographical reach of the outbreak of the novel coronavirus.

For that purpose, the NiGEM multi-country macroeconomic model was used,⁴ and a series of shocks was taken into account, more specifically: (i) negative shocks on private consumption in most economies, which capture the effect of the pandemic by means of lower income and greater uncertainty, as well as the direct impact on expenditure in services, in particular, tourism, transport, and recreational and cultural services; (ii) an increase in investment risk premia across all countries, which captures the impact of heightened uncertainty and translates into higher cost of capital; (iii) negative shocks on equity and non-food commodity prices. Compared with the baseline scenario, the adverse scenario assumes more substantial shocks. The baseline scenario incorporates technical assumptions relating to oil prices, interest rates and exchange rates, updated on the basis of information made available up to 12 March (Table I.2.1).⁵ In the case of oil prices, a fall of around 20% was incorporated with regard to the path implied by futures markets, largely reflecting the latest developments in this commodity's prices. In the adverse scenario, a lower path for oil prices was assumed over the entire horizon, reflecting the more negative shock on global activity.

3. See "ECB staff macroeconomic projections for the euro area", March 2020.

4. NiGEM includes a detailed modelling of the trade and financial linkages across the economies, in parallel with the various options in the simulations' design (for a detailed description of the model, see <https://nimodel.niesr.ac.uk/>).

5. In the foreign exchange market, the projection exercise's standard assumptions of maintenance of the exchange rate over the projection exercise translate into a stabilisation of the euro both in nominal effective terms and against the US dollar in 2020 and into an appreciation of approximately 0.3% in 2021.

In the baseline scenario, global GDP drops by 1.8% in 2020, with several economies undergoing a recession, including the euro area (Table I.2.1 and Chart I.2.4). It is assumed that the maximum impact of the shock will be felt in the second quarter of 2020, with a gradual normalisation of global economic activity from the end of the year onwards, supported by the announced economic policy measures and the stabilisation of financial markets. Therefore, global GDP is estimated to grow by 2.5% in 2021 and 4.0% in 2022. World trade is estimated to fall markedly in 2020 (-10.3%) – reflecting a shock disproportionately affecting international flows of goods and services (most notably, tourism and transport) – and to recover in the course of the following years, in line with activity developments.⁶ Developments in external demand for Portuguese goods and services are projected to be similar (10.9% reduction in 2020 and 3.9% and 5.5% increases respectively in 2021 and 2022).

However, the effects of the pandemic may turn out to be more substantial, particularly those arising from disruptions in global value chains and high uncertainty. The greater destruction of installed productive capacity has marked spillovers in the financial situation of households and firms, warranting the recent fiscal and monetary measures announced in many jurisdictions. As such, the adverse scenario assumes a fairly more substantial economic impact of the pandemic, leading to a global economic recession, greatly exceeding that of the 2009 Great Recession (Table I.2.1 and Chart I.2.4). In this scenario, global GDP is estimated to decrease by 4.6% in 2020, while the fall in international trade is projected to amount to almost 17%. In 2021-22, global activity and trade are estimated to recover, with growth rates close to those estimated in the baseline scenario in the first case and slightly higher in the second. Developments in external demand for Portuguese goods and services are projected to be similar to those in world trade over the projection horizon (Table I.2.1 and Chart I.2.4).

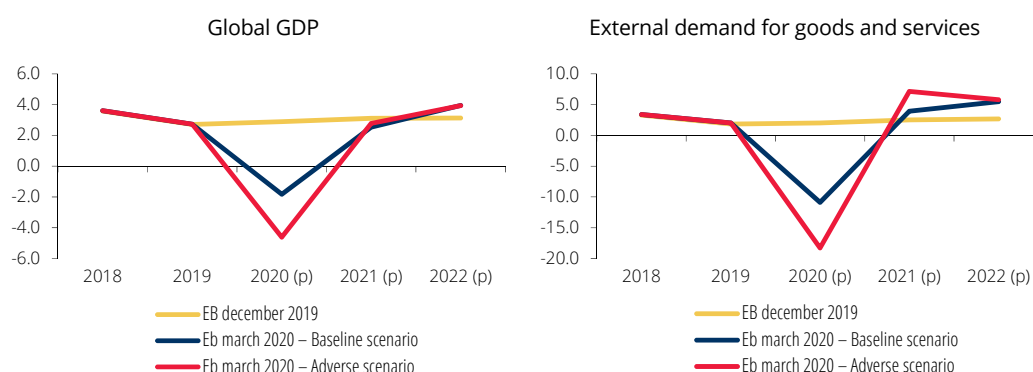
Table I.2.1 • Projection assumptions

		EB march 2020						
		Baseline scenario				Adverse scenario		
		2019	2020	2021	2022	2020	2021	2022
International environment								
World GDP	yoy	2.7	-1.8	2.5	4.0	-4.6	2.8	3.9
World trade	yoy	1.0	-10.3	4.6	5.5	-16.9	7.2	5.7
External demand	yoy	2.0	-10.9	3.9	5.5	-18.3	7.2	5.8
Oil prices in dollars	aav	64.0	40.6	38.8	40.6	37.2	33.9	35.5
Oil prices in euros	aav	57.2	36.3	34.5	36.2	33.3	30.2	31.7
Monetary and financial conditions								
Short-term interest rate (3-month EURIBOR)	%	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Implicit interest rate in public debt	%	2.7	2.6	2.6	2.6	2.6	2.6	2.6
Effective exchange rate index	yoy	-1.6	0.0	0.3	0.0	0.0	0.3	0.0
Euro-dollar exchange rate	aav	1.12	1.12	1.12	1.12	1.12	1.12	1.12

Source: Banco de Portugal. | Notes: arc – annual rate of change; % – per cent; aav – annual average value. An increase in the exchange rate corresponds to an appreciation. The technical assumption for bilateral exchange rates is based on the maintenance throughout the projection horizon of the average levels observed over the two weeks prior to the data cut-off date. 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 (which includes an assumption for the interest rate associated with new issuances) to the simple average of the stock of debt at the end of the same year and at the end of the preceding year.

6. By comparison, and albeit of a very different nature, this baseline scenario is nearing the developments observed in 2009, following the international financial crisis, when global activity contracted (-0.5%) and world trade collapsed (-11%).

Chart I.2.4 • Global GDP and external demand for Portuguese goods and services | Annual rate of change, per cent



Following the escalation of the expected effects of the outbreak of the novel coronavirus on global economy, several economic policy measures have been announced with the purpose of mitigating this impact. Turning to monetary policy, on 12 March the ECB decided to put in place more favourable rules for targeted longer-term refinancing operations and to loosen a number of regulatory requirements for banks, to support bank lending. A temporary envelope of additional net asset purchases was also announced, to the amount of €120 billion until the end of 2020, to ensure favourable financing conditions in the euro area in these times of heightened uncertainty. On 18 March, the ECB announced a new temporary asset purchase programme, the Pandemic Emergency Purchase Programme (PEPP), with an overall envelope of €750 billion, to counter the risks to the monetary policy transmission mechanism and the economic outlook posed by the pandemic. Therefore, in both baseline and adverse scenarios, euro area short-term interest rates are estimated to stand at -0.5% over the projection horizon, a historically low level and below that incorporated in the December 2019 exercise (Table I.2.1). The interest rate implied in the Portuguese government debt is projected to stand at 2.6% in the period 2020-22, in a context where it is assumed that the sovereign risk perception in the euro area will not change markedly. The maintenance of a favourable monetary and financial environment is key to supporting the recovery in investment and consumption after the outbreak has been contained.

In Portugal, in addition to decisions aimed at containing the outbreak,⁷ a series of measures to support the economy and citizens was also announced.⁸ To reduce the negative economic impact on firms and households, the Government announced the possibility of introducing moratoria on loan liabilities and providing access to liquidity with an additional, partial government guarantee, the provision of credit lines (particularly for firms in the tourism sector), the postponement of tax payments and the support to the maintenance of jobs in a regime equivalent to a simplified layoff scheme, among other actions. With regard to social protection, among the most notable measures are: the payment of 66% of wages to employees and exceptional financial support to self-employed persons who have to provide assistance to children aged up to 12, and the treatment of preventive isolation as sick leave for the purpose of social protection measures. Also, measures were taken to guarantee the maintenance of the appropriate human and physical resources in health services, given the current situation.

7. On 18 March, national authorities declared a state of emergency in Portugal. The Government issued a series of guidelines to contain the spread of the virus, notably reinforcing the self-isolation duty for the general population as well as the obligatory quarantine for individuals infected with the virus. With regard to economic activities, the Government enacted the overall closure of establishments open to the public, with the exception of those that provide basic or essential services, but called for the maintenance of business in all other firms.

8. <https://www.portugal.gov.pt/pt/gc22/governo/comunicado-de-conselho-de-ministros?i=330> and <https://www.portugal.gov.pt/pt/gc22/governo/comunicado-de-conselho-de-ministros?i=334> (both, in Portuguese only).

3 Baseline scenario and adverse scenario: economic activity and prices in Portugal in the period 2020-22

The profile underlying projections for the Portuguese economy crucially hinges on the estimated negative impact of the pandemic. The assessment of this impact is surrounded by great uncertainty, in a context where the effects of the outbreak cannot yet be captured in the indicators available for the Portuguese economy for January and February.⁹ The estimates for the impact of the novel coronavirus were derived by taking into account, in addition to the effect of the projection assumptions, shocks on the expenditure aggregates in Portugal of a similar magnitude to those considered for the international scenario. In addition to the direct impacts of the virus and associated mitigation measures, these shocks also capture the effects of increased uncertainty and lower confidence, which involve postponing private consumption and investment expenditure. The results obtained were supplemented by simplified calculations on the supply side for the direct effect of the reduction in the number of days worked and the temporary cessation of activities in several sectors.¹⁰

The Portuguese economy presents vulnerabilities associated with the transmission channels of a shock of this nature. The importance of the tourism sector for economic activity in Portugal entails a high exposure to the expected reduction in global demand for this type of service, which is likely to be very substantial. An economic shock of such a magnitude also results in increased difficulties for the Portuguese corporate sector, which is chiefly composed of small-sized enterprises with a relatively fragile financial situation. Finally, the high percentage of households close to or below the poverty line in Portugal, including households with members that are part of the labour force, means that there is only a small margin to absorb the expected shock on income.

3.1 Baseline scenario

In the baseline scenario, Portuguese economic activity is estimated to contract markedly in the second quarter of the year, and to recover only gradually from the end of the year onwards. The magnitude and breadth of the crisis point to a destruction of productive capacity worldwide and an interruption in the build-up of inputs and technological progress, which implies a slow and incomplete convergence towards the activity levels projected in the December 2019 issue of the *Economic Bulletin*, which proxies a counterfactual no-crisis scenario. Nevertheless, this scenario assumes relatively limited financial market disruptions and a stimulus provided by monetary and fiscal policy decisions.

9. These quantitative and qualitative indicators point to a maintenance of the expansionary path in the first months of the year.

10. These calculations are based on assumptions on the number of employees (directly and indirectly) affected by the disease and the sectors of the economy most exposed to a partial or total halt in activity.

According to the projections based on this scenario, economic activity levels in Portugal drop by 3.7% in 2020 (after a 2.2% increase in 2019) (Table I.1.1). In the subsequent years, a recovery is expected, with GDP growth standing at 0.7% in 2021 and 3.1% in 2022.

Private consumption is projected to decrease by 2.8% in 2020, following a 2.3% increase in 2019. Spending on durable goods is expected to fall markedly and current consumption is projected to decrease. Consumption developments reflect, on the one hand, rising precautionary household savings amid great uncertainty and, on the other hand, a slight reduction in real disposable income. This reduction stems from the decrease in employment and weaker growth in compensation per employee – mainly reflecting the impact of an increase in sick leaves and family leaves – which is only mitigated by support budgetary measures. A substantial increase in government transfers to households is foreseeable in 2020. Private consumption is expected to rise by 1.4% in 2021 and to accelerate in 2022 to growth close to 3%.

Turning to government consumption, 2.1% growth is expected in 2020, which corresponds to a marked acceleration from 2019 (0.8%). These developments stem from the assumption of a substantial hike in health expenditure borne by the general government, assuming that part of the population affected by the disease will require medical treatment and appropriate medication and, in the most serious cases, hospitalisation.

In the baseline scenario, gross fixed capital formation (GFCF) is expected to decrease by 10.8% in 2020 (after 6.4% growth in 2019). Underlying these developments is a marked reduction in corporate investment and, to a lesser extent, residential investment. Capital expenditure of firms is likely to be strongly affected by the heightened uncertainty about the magnitude and duration of the outbreak and its impact on the outlook for domestic and foreign demand. With the gradual normalisation of activity from the end of 2020 onwards, GFCF is expected to grow in the following years, by 2.9% and 7.9% respectively in 2021 and 2022.

In this scenario, exports of goods and services are projected to drop markedly in 2020 (-12.1%), after a 3.7% increase in 2019. This reflects the reduction in external demand for Portuguese goods and services, associated with the weakening global activity resulting from the pandemic. Exports of services, particularly tourism and transport, are strongly affected by limitations to the movement of people and should fall markedly. Over the remaining projection horizon, exports are estimated to recover in line with developments in the external demand indicator, with 4.2% and 5.5% growth respectively in 2021 and 2022.

Real imports are also expected to decrease considerably in 2020 (-11.9%), after a 5.2% increase in the previous year. This reflects the contraction in global demand, compounded by both the fact that it especially affects expenditure components with high import content and the very negative impact of the outbreak on services imports. In the subsequent years, the upturn in global demand and the unwinding of the effects of the outbreak on services flows are projected to result in import growth of around 6%.

The current and capital account balance is estimated to increase to 2.0% of GDP in 2020 (0.9% of GDP in 2019), due to an improvement in the goods account – reflecting the gains in terms of trade associated with the fall in oil prices – and an increase in transfers from the EU, associated with the end of the current financial programming cycle (Chart I.1.2).¹¹ The services account surplus is

11. For a more in-depth analysis, see the box entitled “Impact of EU funds on the current and capital account: Portugal 2020 in perspective”, in the March 2019 issue of the *Economic Bulletin* of Banco de Portugal.

expected to decrease, reflecting the particularly negative impact of the shock on tourism flows. In the subsequent years, the Portuguese economy's net lending capacity is expected to remain unchanged, with the profile of the account balance being largely explained by developments in inflows and outflows with European institutions.¹² The maintenance of current and capital account surpluses is crucial to sustain the downward path of high external indebtedness, which is a greater vulnerability in a more uncertain external environment (see the Special issue: "A look into external account developments in Portugal" in this Bulletin).

The contraction in economic activity in 2020 should translate into job losses, with a reduction in employment of 3.5% (after 0.8% growth in 2019). The unemployment rate is estimated to increase by 6.5% to 10.1% (Chart I.1.2). However, projected developments in unemployment crucially hinge on the configuration and magnitude of policy measures that may be immediately implemented. In the subsequent years, the recovery in activity is expected to be accompanied by gains in employment, with a projected gradual reduction in the unemployment rate. Compensation per employee is expected to decelerate in 2020 – chiefly reflecting the impact of an increase in sick leave and family leave – and recover in 2021-22.

Inflation, as measured by the annual rate of change in the HICP, is projected to remain at very low levels in 2020 (0.2%, compared to 0.3% in 2019). Against the background of a shock on aggregate demand and supply, it is estimated that some downward pressure on prices will prevail. Uncertainty surrounding this projection is exacerbated by expectations of significant changes in relative prices in the short run, being anticipated that prices for a number of services will drop, in particular those related to tourism and recreational activities, while prices for food and other products deemed to be essential are expected to increase. The contribution of energy goods to price changes is expected to remain negative, in line with actual and assumed developments in oil prices. The contribution of inflation excluding energy goods is projected to grow slightly in 2020, reflecting the unwinding of a series of idiosyncratic factors with a negative impact on inflation in the previous year. In 2021 and 2022, inflation is projected to increase somewhat, to around 1%, amid an upturn in economic activity.

3.2 Adverse scenario

In the adverse scenario, the magnitude of the shock on the global and Portuguese economies is substantially amplified by greater disruption to global production chains, the environment of persistent uncertainty and increased turmoil in financial markets. The assumption that the peak impact of the pandemic will occur in the second quarter of 2020 remains, but economic activity levels in that period are assumed to be lower than in the baseline scenario. In this context, a greater volume of productive capacity is expected to be destroyed, implying a higher deviation of the output level from that projected in December 2019 (Chart I.1.1).

According to the projections based on this scenario, GDP is estimated to contract by 5.7% in 2020. Turning to global demand components, particularly noteworthy are the strong declines in exports and investment as well as the magnitude of the reduction in private consumption (Table I.1.1). Economic activity growth is estimated to stand at 1.4% in 2021 and at 3.4% in 2022.

12. In 2021, in addition to higher inflows of funds related to the end of the financial programming cycle, there is also an extraordinary positive effect, associated with the reimbursement by the European Financial Stability Facility of amounts paid by Portugal under the Economic and Financial Assistance Programme.

Private consumption is projected to decrease by 4.8% in 2020. Households are likely to cut consumer spending more substantially in a scenario of heightened uncertainty, where greater job losses, higher unemployment levels and more unfavourable financing conditions are expected compared with the baseline scenario (Chart I.1.2). In subsequent years, consumption growth is expected to recover, more substantially at the end of the horizon.

The adverse scenario incorporates a near 15% fall in GFCF in 2020. The impact of the shock on corporate investment is enhanced by heightened uncertainty, the more marked slowdown in global demand and the deterioration in financing conditions. The recovery in GFCF in 2021-22 is expected to be slightly more buoyant than that projected in the baseline scenario, in a context where greater destruction in productive capacity is anticipated.

Against a background of a global recession and major collapse of world trade, external demand for Portuguese goods and services is projected to decrease more considerably and lead to a fall in exports of goods and services of approximately 19% in 2020 (Chart I.2.4). In line with the external cycle, exports are projected to recover in the subsequent years. Compared to exports, imports are expected to decrease in the same proportion in 2020 and to grow at a similar rate in 2021 and more swiftly at the end of the horizon. In the period 2020-22, external accounts are expected to post a surplus close to that projected in the baseline scenario (Chart I.1.2).

4 Final considerations

The current crisis triggered by the impact of the coronavirus poses an unprecedented, serious challenge to the various economic policies. These policies should prioritise a short-term response to the impact brought on by the pandemic, but medium-term considerations should also be taken into account.

In terms of monetary policy, the key concern is securing an adequate provision of liquidity to the economy and an accommodative monetary policy to all jurisdictions, thereby contributing to the stabilisation of economic agents' confidence and expectations.

Turning to fiscal policy, expenditure incurred in response to the pandemic and support to households' and businesses' incomes is pivotal at this stage. These extraordinary increases in expenditure, combined with the operation of the so-called automatic stabilisers, imply a reduction in the budget balance and an increase in government debt. In this context, it should be noted that European fiscal rules provide for greater flexibility in situations like these. Nevertheless, concerns about the sustainability of the debt may emerge in several jurisdictions, despite the exceptional nature of the outbreak, leading to a potential fragmentation in euro area securities markets. The recent announcement of the expanded asset purchase programme by the ECB should prove decisive to ensure the integrity of monetary transmission in the euro area.

Over the past few years, the need to break the link between sovereign debt risk and the solvency of credit institutions led to the approval of crisis resolution and cross-country risk-sharing mechanisms, in addition to efforts to improve the resilience of credit institutions' balance sheets. However, the Banking Union was not fully implemented and therefore, weaknesses in the European banking system were not fully overcome, which is a source of concern in the current context.

The present conjuncture once again underlines the need to strengthen international leadership, coordination and cooperation in several domains, notably in economic terms. In this context, the

deepening of the Monetary Union, including the implementation and reinforcement of European budgetary mechanisms for economic stabilisation and for the promotion of convergence, is especially important. In the presence of a common shock, like the coronavirus outbreak, solidarity and the adoption of shared policies at European level is paramount. Furthermore, international cooperation aimed at preventing the build-up of macroeconomic imbalances and the adoption of protectionist policies should be intensified.

This pandemic crisis shows that, as in the issue of climate change, a number of challenges arise globally. The strong interrelation created by the intensification of flows of trade in goods and services, capital and people, largely stemming from technological progress, has brought about very substantial welfare gains. However, the complexity of these links means that shocks are swiftly passed through and that their effects may be severe. This situation illustrates the need to address market failures resulting from the disregard of all economic and social costs involved in the production process and to reshape global value chains in order to lower dependence on given countries or regions. Opting for policies limiting international economic links is not an efficient solution for the existing challenges.

In Portugal, as in past crises, economic agents and society in general will know how to overcome the current emergency situation in a spirit of solidarity, and lessons should be drawn to make it possible to do better in the future, in a European and international cooperation environment.

Box 1 • An assessment of projections for 2019

This Box provides an analysis of the main factors behind the deviation between the figures observed and those projected by Banco de Portugal in the March 2019 issue of the *Economic Bulletin*, an exercise which incorporated the Quarterly National Accounts until the end of 2018 for the first time.¹³ The deviations between actual and projected growth rates or levels are referred to as ‘projection errors’.

In drawing up the projections published by Banco de Portugal in the *Economic Bulletin*, a number of macroeconomic models and assumptions for the variables of the external environment are used. The external environment assumptions result from the Eurosystem projection exercise, and the following are particularly important: external demand for Portuguese firms, oil prices in international markets, the 3-month Euribor rate and Portugal’s main competitors’ prices in external markets.¹⁴ The projections for the Portuguese economy also incorporate a range of budget variables. The inclusion of budget information follows the rules adopted under the Eurosystem projection exercises, i.e. the incorporation of specific measures with sufficient detail included in the State Budget for this year. In this context, the projection errors result not only from the fact that the assumptions incorporated in the exercise may not materialise, but also from factors related to the models themselves, judgemental elements incorporated in the projection and the revision of statistical series.

Economic activity growth for 2019 was higher than anticipated in the March 2019 issue of the *Economic Bulletin*, with the projection error standing at 0.5 p.p. (Table C1.1 and Chart C1.1). In terms of the main components of aggregated demand, there was an overestimation of private consumption, i.e. growth was estimated to be higher than actual, which was related to an error in the same direction for the projected real disposable income.¹⁵ In contrast, there was an underestimation of public consumption by 0.5 p.p. The component that contributed the most to the underestimation of GDP was imports, with a projection error of 1.1 p.p. This error is in part directly related to the overestimation of private consumption, particularly the durable goods component, which has a high import content. However, it is also partly due to the assumption adopted in the March 2019 projection of an elasticity of imports against weighted global demand higher than the actual one.¹⁶

The revisions in the external framework assumptions for the exercise do not help to explain the underestimation of GDP. The estimated impact of these revisions is 0.5 p.p. on the GDP growth rate and reflects, in particular, the downward revision of growth in external demand for Portuguese firms and external competitors’ prices. These factors were expected to result in a larger downward revision of goods and services export growth, which did not occur given the more favourable than previously projected behaviour of exporters’ market shares.

13. Available at https://www.bportugal.pt/sites/default/files/anexos/pdf-boletim/proj_mar2019_p.pdf

14. In the case of the March issue of the *Economic Bulletin*, the external environment assumptions are those implicit in the document published by the ECB in March and entitled “ECB staff macroeconomic projections for the euro area”, available at https://www.ecb.europa.eu/pub/projections/html/ecb.projections201903_ecbstaff-14271a62b5.en.html.

15. The sector accounts for 2019 had not yet been published by the cut-off date of this *Economic Bulletin*; therefore, the inference on the projection error for disposable income results from information available for this variable up to the third quarter of 2019

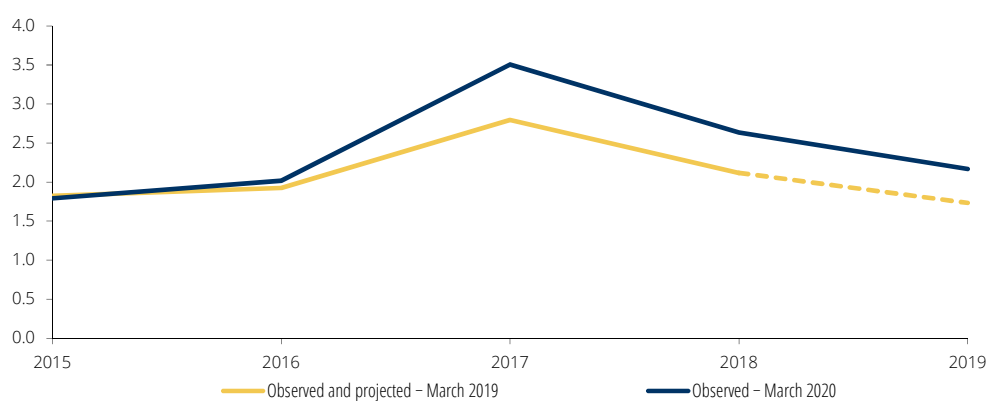
16. For more details on the calculation of global demand weighted by import content, see the Box entitled “Update of the import content of global demand for the Portuguese economy”, *Economic Bulletin*, March 2019.

Table C1.1 • Projection errors in 2019 | Observed – projected in March 2019, in p.p.

	Weights in GDP (2018)	Observed	EB March 2019 projection	Projection error
GDP	100.0	2.2	1.7	0.5
Private consumption	64.6	2.3	2.7	-0.4
Public consumption	16.9	0.8	0.3	0.5
Investment	18.1	6.5	6.7	-0.2
Exports	43.7	3.7	3.8	-0.1
Imports	43.3	5.2	6.3	-1.1
Current plus capital account (%GDP)	–	0.9	0.6	0.3
Harmonized index of consumer prices (HICP)	–	0.3	0.8	-0.5

Sources: Statistics Portugal and Banco de Portugal.

The assessment exercise of the March 2019 projection for economic activity is greatly hindered by the significant revisions to the national accounts series published by Statistics Portugal (INE). These revisions have resulted from methodological changes related to a change in the national accounts benchmark year and mainly from the incorporation of new information.¹⁷ According to the Quarterly National Accounts released on 28 February, the annual GDP growth rate was 3.5% in 2017 and 2.6% in 2018, compared to figures of 2.8% and 2.1% respectively, which were available when the March 2019 projections were prepared (Chart C1.1). These revisions point to a stronger underlying momentum of the Portuguese economy in recent years, which ultimately had an important impact on the GDP projection error in 2019. In the projection included in the March 2019 issue of the *Economic Bulletin*, the implicit deceleration of GDP from 2018 to 2019 was 0.4 p.p. (from 2.1 to 1.7%), being very close to the actual deceleration (from 2.6 to 2.2%), according to recently disclosed data (Chart C1.1).

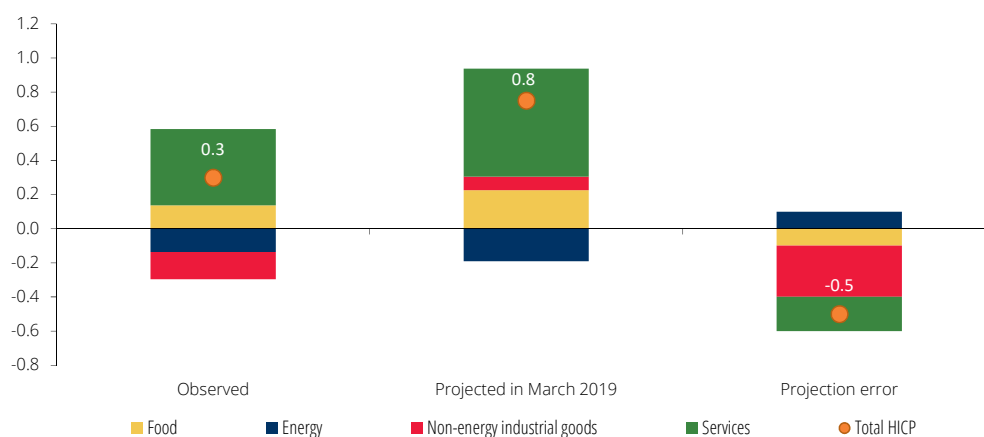
Chart C1.1 • Real GDP | Annual rate of change, as a percentage

Sources: Statistics Portugal and Banco de Portugal.

17. These revisions particularly affected the years 2017-18, as well as the 2019 available quarters, and occurred in September 2019 (see the Box entitled “Revision of the national accounts and balance of payments statistics” in the October 2019 *Economic Bulletin* of Banco de Portugal) and in February 2020 (https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_destaques&DESTAQUESdest_boui=353902247&DESTAQUESmodo=2&lang=en). Contrary to what has been customary in previous publications of the Box on projection errors, we do not to present the contributions of each component to the GDP projection error since the change in the national accounts benchmark from 2011 to 2016 does not allow this calculation.

Observed inflation in 2019 stood 0.5 p.p. below that estimated in March 2019 (Table C1.1). This overestimation of inflation was mainly due to projection errors in the components of non-energy industrial goods and services (Chart C1.2). After an extended period of consecutive drops in the prices of non-energy industrial goods (in particular, clothing and footwear), marginal growth was anticipated for 2019, which did not materialise. With regard to services prices, the deceleration projected in the March 2019 issue of the *Economic Bulletin* – after rises of more than 2% in 2017 and 2018 – was lower than the actual one. A number of specific factors have contributed to a stronger decline in 2019 inflation than previously projected. In 2019, in addition to a significant slowdown in prices of tourism-related services, the rate of change in the headline HICP was affected by the impact of administrative changes that led to significant drops in the prices of a number of goods and services.¹⁸

Chart C1.2 • HICP rate of change and contributions of the main aggregates in 2019 | As a percentage and p.p.



Sources: Statistics Portugal and Banco de Portugal.

Finally, in the current and capital account as a percentage of GDP, the projection error was 0.3 p.p., which was mainly due to more favourable developments than anticipated in March 2019 for the primary and secondary income accounts (Table C1.1).¹⁹

18. Mention should be made to the increase in the general government contribution to public transportation (a drop in the prices of travel cards), the decline in higher education tuition fees, the reduction in the price of school textbooks (with the entitlement to free textbooks being extended to all years of secondary education), and the drop in prices of mobile phone services (associated with the entry into force of price limits for communications within the European Union).

19. As in the case of the National Accounts, when comparing the projection for the account with the actual figures, the significant revisions made to the series of balance of payments statistics, which took place in September 2019 and February 2020, must be taken into account.



II Special issue

A look into external account
developments in Portugal

A look into external account developments in Portugal

Introduction

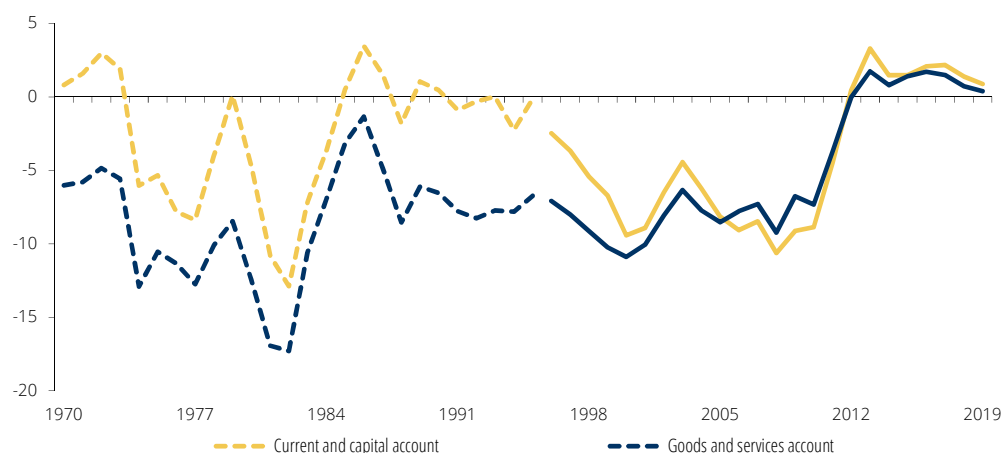
The analysis of a country's foreign trade and financial relations is central to the economic analysis, particularly when assessing imbalances and vulnerability to shocks. The evolution of the external balance may pinpoint unsustainable macroeconomic developments, such as consumption overgrowth or changes in competitiveness, as well as the need to adopt corrective actions. High and persistent current and capital account deficits entail increases in external indebtedness and may raise doubts in international investors about the country's ability to repay, triggering sudden disruptions in external financing. Often, this would lead to the need for emergency assistance from international institutions, subject to conditionality. Empirical evidence suggests that strong external account adjustments are associated with negative developments in economic activity.

This Special issue, besides reviewing key concepts of the analysis of the balance of payments statistics, outlines recent developments in Portuguese external accounts from both a historical and international perspective. Against this background, some stylised facts about the evolution of external imbalances and the dynamics of adjustments at a global level are presented, with particular emphasis on the Portuguese experience. A more detailed assessment of the current situation in Portuguese external accounts is also carried out, highlighting possible fragilities. At present, the existence of a globally benign scenario regarding the current and capital account balance represents an opportunity to consistently pursue a downward path for external debt.

The issue of external imbalances is of particular interest to the Portuguese economy, as the effects of the sovereign debt crisis in the euro area and the economic and financial assistance programme, in force between 2011 and 2014, are still present. This crisis combined the macroeconomic imbalances in the Portuguese economy with a sharp deterioration in the access conditions to international financing markets, which led to a strong adjustment, with significant costs in terms of product and employment. In contrast, the Portuguese economy has recorded, since 2013, moderate current and capital account surpluses, to which have contributed the positive balances in the goods and services account, an unparalleled situation over the past 50 years (Chart 1). However, the highly negative international investment position in historical and international comparison implies, on the one hand, the need to maintain these surpluses for an extended period of time and, on the other hand, a vulnerability to changes in sentiment from international investors.

This Special issue is organised as follows: In the next section, worldwide developments of external account imbalances since 1970 are reviewed. Episodes of external deficit reversals are identified and characterised in a sample of advanced economies, positioning the Portuguese economy in this context. In the third section, the current situation of external accounts in Portugal is detailed, emphasising any elements of vulnerability. Finally, some final considerations are presented. This Special Issue includes 3 boxes. The first box presents the basic concepts of external statistics and their relevance for economic analysis, the second estimates the impact of the cyclical evolution of the Portuguese economy and the main trading partners on the external balance, and the third one presents scenarios for external indebtedness developments.

Chart 1 • Current and capital account and goods and services account | In percentage of GDP



Sources: Statistics Portugal and Banco de Portugal. | Notes: For the period prior to 1996, the “Historical series about portuguese economy after World War II” were used, assuming that the current and capital account corresponds to the current transactions account and that the goods and services account corresponds to the merchandise and services account. There are methodological differences between the current balance of payments series and the estimates in the Long Series, which imply that the retropolation presented is a proxy of the current and capital account main balances.

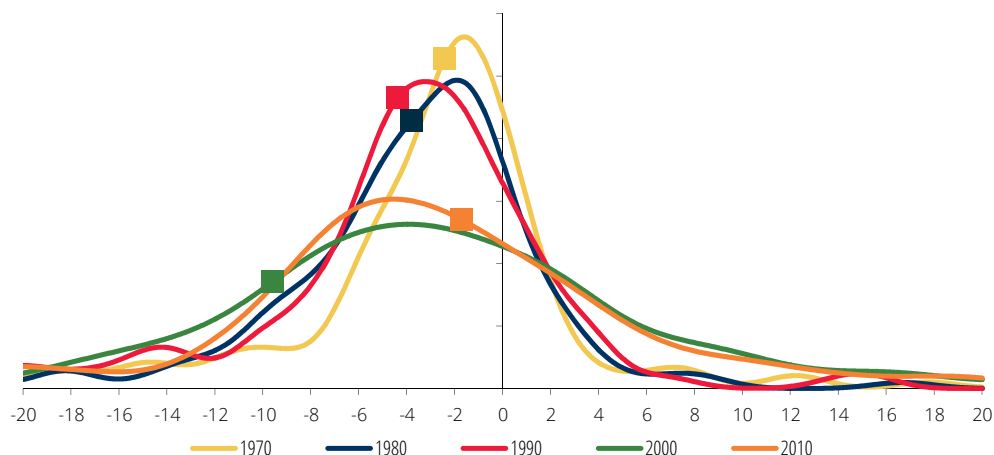
External accounts in Portugal and in the world: imbalances and adjustments.

Current account balances as a percentage of GDP are highly diverse across the world and can change significantly over time.¹ Such changes in countries’ external accounts are, in general, natural and desirable, as they reflect the adjustment to shocks and structural transformations. Nevertheless, in case high and persistent deficits are recorded, sudden and significant corrections can occur, entailing high costs. In this context, it is important to understand how the number of countries with significant external imbalances has evolved over time, as this may be indicative of the likelihood of these reversal episodes.

Chart 2 presents the distribution of average current account balances as a percentage of GDP in each decade for a group of 195 countries. A quite visible stylised fact is the greater dispersion of distributions in post-1990 decades, i.e., there is a higher prevalence of large imbalances in external accounts (deficits and surpluses) in more recent periods. The most discussed cases relate to USA deficits and China surpluses, as well as the continued surpluses of euro area countries, such as Germany or the Netherlands. Global imbalances reached a peak in the years that preceded the international financial crisis, and declined somewhat thereafter, but they remain at historically high levels. These imbalances have also become more concentrated in advanced economies (IMF, 2019).

1. In this section, given the availability of data, international comparisons are based on current account balances (and not on the current and capital account combined balance). For most countries, the capital account has a residual weight compared to that of the current account.

Chart 2 • Current account distributions of in the world by decade | Average balance in percentage of GDP



Source: Chelem (Banco de Portugal calculations). | Notes: The squares indicate Portugal's position in the respective distribution. The most recent period corresponds to the average of the years 2010-2017. A set of 195 countries is considered. Kernel density estimation is a non-parametric way of estimating the probability density function of a variable. In the literature, these density estimates are considered preferable to those of histograms for continuous variables, namely because they smooth the distribution.

It can be argued that the deficits and surpluses observed at the world level are, to a certain extent, economically justified (Box 1 – External accounts: concepts and relevance). For instance, countries with a rapidly ageing population may benefit from the accumulation of assets abroad (i.e., resulting from current account surpluses) that they may use in the future, while for economies with a young and rapidly growing population or with investment opportunities but scarce domestic savings it may be justified to turn to external financing (i.e., by running deficits) to be repaid in the future. In this context, the increase in global imbalances may be associated with the opportunities created by an acceleration in the globalisation process, i.e., by a significant increase in trade in goods and services and financial flows resulting from progress made in the liberalisation of these transactions and a greater opening of the emerging market economies. However, these larger imbalances in external accounts may also result from poor economic policies and other distortions. In any case, the persistence of high deficits entails a greater risk of external financing crises and sudden and disruptive adjustments.

Internal and external factors may trigger reversals in current account deficits. In addition to a sudden stop in financial flows from abroad, the adjustment of the external deficit may also result from internal shocks, such as the implementation of a fiscal consolidation programme resulting in an increase in public sector savings. In general, these factors tend to translate into a reduction in the external deficit but also in economic growth.

Against this backdrop, it is useful to analyse the episodes of reversals in current account deficits observed in a sample of 36 advanced economies² over the past 5 decades. To identify those episodes, the following cumulative criteria were applied:³

- The current account deficit before the adjustment started was over 3% of GDP;
- The adjustment in the following three years was, at least, 3 p.p. of GDP;

2. The IMF's advanced economies classification applied.

3. These criteria are similar to those used in the related literature. See, for example, Milesi-Ferreti and Razin (2000) and Freund (2005).

- The correction was at least one third of the maximum deficit recorded; and
- The largest deficit observed in the five years following the start of the adjustment was lower than the deficits in the preceding three years.

The first requirement is that only significant deficit reversals be considered, while the following two ensure that the adjustment is of considerable magnitude and takes place in a relatively short period. Finally, the last criterion ensures that the improvement is not short-lived. 36 episodes of current account deficit reversals were identified in the advanced economies sample, between 1970 and 2017, which represents an average of one reversal per economy. There are, however, considerable differences in the frequency of this type of adjustment across the countries. A group of countries, where Portugal is included, presented more than one episode of significant correction of the external deficit in the period under review.⁴ To characterise a typical reversal, Chart 3 shows the average and median trajectory of the current account balance and the real GDP growth in the 5 years before and after the deficit reached its maximum. The years leading up to the current account reversal are characterised by an increase in the external deficit - on average, from about 4% to 11% of GDP - and by high GDP growth (around 5%, on average). The external accounts' adjustment tends to be significant. Three years having elapsed, the balance improves on average, around 9 p.p. of GDP, with about half of this adjustment taking place in the first year. There is a slowdown in the economic activity in the years around the deficit reversal. Growth reaches a minimum in the second year of the current account improvement - on average, the real GDP growth rate declines by about 2.5 p.p. in the two years that follow the start of the adjustment - and recovers later, but at a relatively slow pace. However, there are considerable differences between the identified episodes in the behaviour of economic activity.

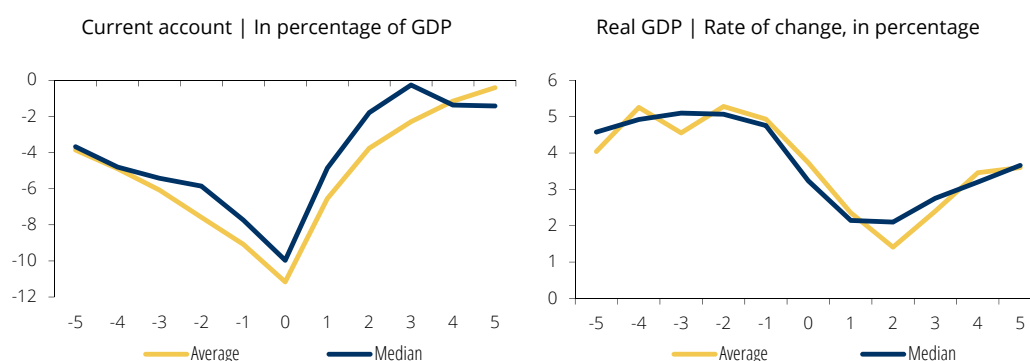
These results are in line with those presented in Freund (2005), one of the first studies to systematically analyse current account reversals in industrialised economies.⁵ According to this study, such episodes are usually accompanied by a decline in growth rates of GDP, investment and imports and an increase in exports, as well as a depreciation of the real exchange rate. Furthermore, large current account deficits and, to a lesser extent, weaker growth are significant predictors of reversals, although it is not possible to establish a precise threshold for the level of the deficit that triggers the adjustment.

It is important to note that although current account reversals tend to coincide with reductions in GDP growth, most studies do not find evidence of a causal relationship between the reversal itself and the slowdown in economic activity, independently of the factors that caused the correction (Croke et al., 2006; Debelle and Galati, 2007). The correction of the external deficit and the reduction in growth may only reflect the adjustment necessary to tackle the macroeconomic imbalances present in the economy.

4. The identified episodes occurred in 24 advanced economies, with more than a significant external deficit reversal in the following countries, during the period under review: Cyprus, Hong Kong, Iceland, Ireland, Lithuania, Luxembourg, New Zealand, Singapore, Slovakia, Spain and Portugal. It should be noted that, according to established criteria, the correction of Portugal's deficit in 1977-79 is not identified, since the deficit increased again in the following years to levels above those recorded before the start of the adjustment.

5. In contrast, Milesi-Ferretti and Razin (1998, 2000) – pioneers in studying the determinants and patterns of current account reversals – used a wide panel of developing countries and found no evidence of a systematic relationship between significant deficit corrections and the economic performance over the period 1970-1996.

Chart 3 • Trajectory during a typical episode of current account reversal in advanced economies



Sources: Chelem, Statistics Portugal and Banco de Portugal. | Notes: $t=0$ is the year in which the current account balance reaches its trough. The charts are based on 36 current account reversals in a sample of 36 advanced economies over the period 1970-2017.

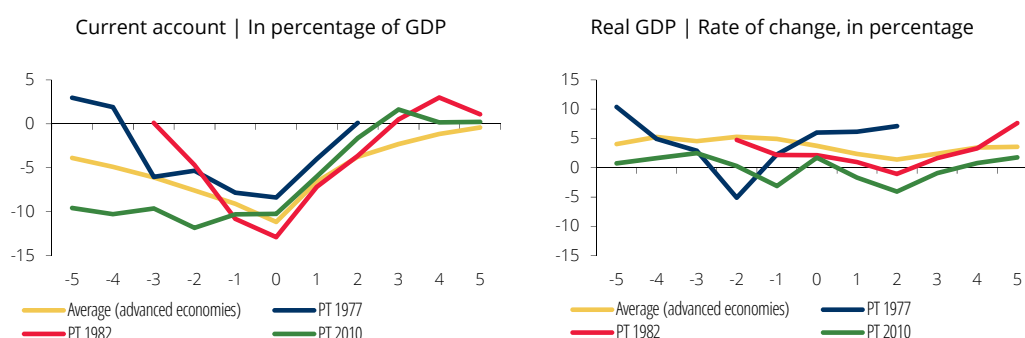
Over the decades under review, the frequency of episodes of significant external deficit reversals has not changed significantly, even if there has been a slight increase in the number of episodes in the first decade of the millennium.⁶ Despite the fact that the characteristics of the current account adjustment have not changed significantly over the period (in terms of the starting deficit and the subsequent magnitude of the adjustment), there is evidence of more adverse developments in economic activity during the episodes that occurred in the new millennium. On average, in these episodes, the rate of change in real GDP fell more significantly in the two years that followed the start of the adjustment (almost 7 p.p.), averaging in negative territory. The context of the international financial crisis of 2009 and the ensuing sovereign debt crisis in the euro area helps to explain the increase in severity and duration, as well as the greater synchrony, of the recessions observed in several advanced economies over this period.

In the Portuguese case, the three current account adjustment periods considered were related to external financing crises and involved economic stabilisation agreements/assistance programmes with international institutions⁷ Comparing these episodes with the average adjustment in advanced economies, it appears that the current account balance followed a similar pattern (Chart 4). However, the most recent adjustment episode in Portugal was preceded by a period of high deficits that were more persistent than those observed, on average, in advanced economies. As regards developments in the activity, the most recent adjustment stands out for coinciding with a more marked slowdown in GDP growth than that observed on average in advanced economies.

6. The evolution of the number of episodes identified, per decade, is as follows: 7 in the 70s, 9 in the 80s, 6 in the 90s, 11 in the 2000-2009 period and 3 in the 2010-2017 period.

7. For a comparative analysis of these episodes, see Box "A comparison between the adjustment of the Portuguese economy and previous domestic and international experiences", 2012 *Annual Report*.

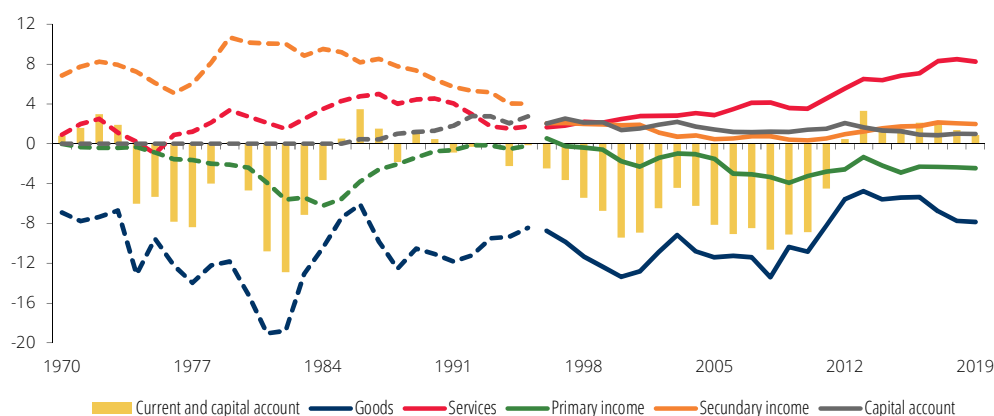
Chart 4 • Trajectory during episodes of current account reversal – Portugal vs. average in advanced economies



Sources: Chelem, Statistics Portugal and Banco de Portugal.

The high current and capital account deficits recorded in the periods leading up to adjustment episodes were largely determined by the balance of goods account (Chart 5).⁸ In the period preceding the latest adjustment, reference should also be made to the deteriorating trend in the primary income balance deficit during the first decade of the century, determined by a rising external debt position. In turn, the reversals reflected a significant reduction of the goods account deficit – particularly in the adjustments post-1982 and 2010 – and, to a lesser extent, an increase in the services account surplus. In the most recent adjustment, the contribution of the income accounts to the external deficit reversal should also be mentioned.

Chart 5 • Current and capital account and main components over the period 1970-2019 | In percentage of GDP

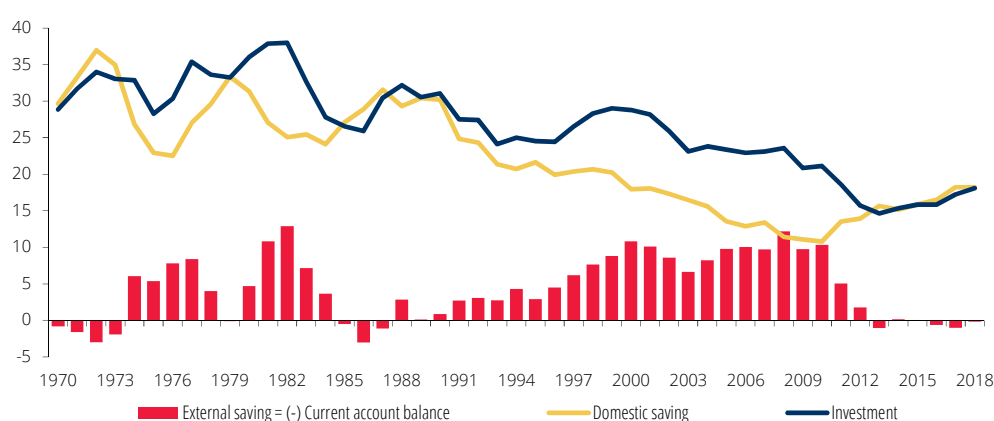


Sources: Statistics Portugal and Banco de Portugal. | Notes: For the period prior to 1996, the “Historical series about portuguese economy after World War II” were used, assuming the following simplifying assumptions: the current and capital account corresponds to the current transactions account, the primary income account corresponds to the income account, the secondary income account corresponds to unilateral transfers excluding EU capital transfers and the capital account corresponds to EU capital transfers. There are methodological differences between the current balance of payments series and the estimates in the Historical series, which imply that the retropolation presented is a proxy of the current and capital account main balances.

8. In the period leading up to the 1977 adjustment, the increase in the external deficit also reflected reduced surpluses in services and secondary income accounts, associated with the drop in tourism income and the interruption of migrants’ remittance flows amid uncertainty and political and social instability.

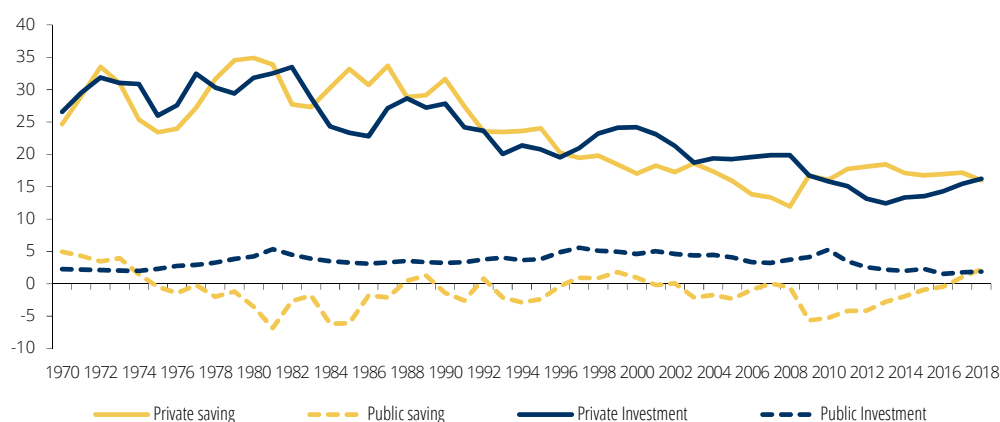
The increase in the economy's financing needs *vis-à-vis* other countries in the periods leading up to the reversals has always reflected a reduction in the domestic savings rate. (Chart 6). In general, this reduction resulted from the behaviour of the private sector (firms and households) and the public sector (Chart 7). In contrast, investment in the GDP ratio increased in the periods leading up to the 1977 and 1982 adjustment episodes. In the most recent episode, the increase in investment as a percentage of GDP took place in late 1990s, leading to an increase in the external deficit, which remained at high levels throughout the first decade of the century. In the three identified episodes, the adjustment of the external accounts reflected a reduction in the investment rate and, to a lesser extent, a pick-up in domestic savings (Chart 6). In the most recent adjustment, it is important to highlight the contribution of the fiscal consolidation effort. The financing needs of public administrations decreased by around 6 p.p. of GDP between 2010 and 2013, explaining about half of the reduction in the external deficit observed in the period.

Chart 6 • Current account, investment and domestic savings over the period 1970-2018 | In percentage of GDP



Sources: Statistics Portugal and Banco de Portugal. | Notes: For the period prior to 1996, the "Historical series about portuguese economy after World War II" were used, assuming that the current account corresponds to the current account balance excluding capital transfers from the EU. There are methodological differences in the calculation of the current series of balance of payments and the estimates in the Historical series, so the retropolation presented is a proxy of the current account balance.

Chart 7 • Investment and domestic saving by institutional sector over the period 1970-2018 | In percentage of GDP



Sources: Statistics Portugal and Banco de Portugal. | Note: For the period prior to 1996, the "Historical series about portuguese economy after World War II" were used.

Current situation of external accounts in Portugal

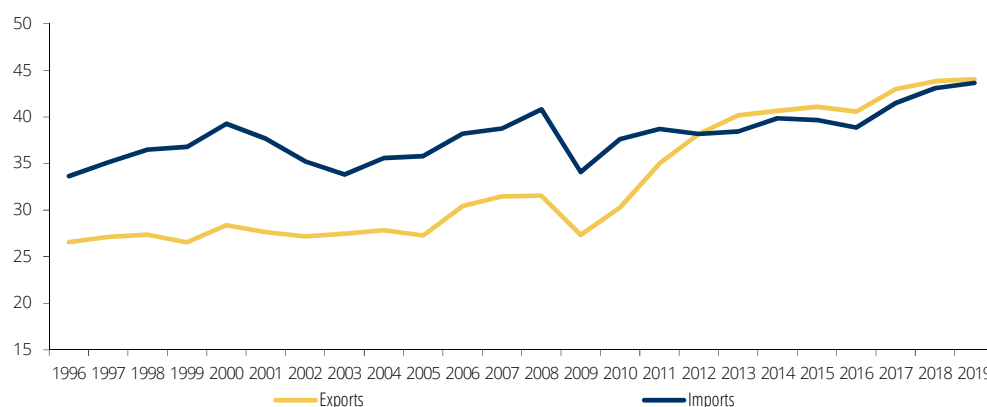
The current and capital account has been in surplus in recent years, with the average balance in the period 2014-2019 standing at 1.6% of GDP, which contrasts with the high deficits observed in the 15 years before the adjustment (Chart 5). In this period, the ongoing upward trend in domestic savings, in particular of the public administrations and of firms, allowed for greater investment dynamics without jeopardising the maintenance of external surpluses (Charts 6 and 7). However, investment as a percentage of GDP remains at low levels, in historical terms and compared to other economies, which constrains potential growth dynamics.

As for current and capital account components, the prevalence of surpluses in the recent period has been supported by a positive balance in the goods and services account, which is a milestone for the Portuguese economy.⁹ Over the past six years, the balance of this account has fluctuated around 1% of GDP, which compares with deficits exceeding 8% of GDP on average in the 1995-2010 period. The magnitude of the adjustment in trade flows for goods and services corresponds to a structural change in the economy. An exercise to adjust the goods and services account from the effect of changes in domestic and foreign economic activity allows to conclude that most of the adjustment was not due to the effect of such cyclical fluctuations (Box 2 – Cyclical adjustment of exports and imports of goods and services). It should be noted, however, that the goods and services account recorded a smaller surplus in the past two years.

The reversal of the goods and services account deficit resulted mostly from exports behaviour. In nominal terms, the weight of exports in GDP increased from an average of 28% in the 1996-2010 period to around 40% in 2013 (Chart 8). In contrast, the weight of imports of goods and services in GDP has hardly changed over the same period.¹⁰ In the recent years of economic recovery, the weight of exports has continued to increase, but at a slightly lower rate than that of imports.

In the adjustment period, exports real growth was well above the real change in imports, leading to a positive and significant volume effect for the change in the goods and services balance (Chart 9). By contrast, this volume effect has been negative in the recent period. The maintenance of surpluses in this account has benefited from a favourable evolution of the terms of trade, in particular, the gains in the years 2013 to 2016 associated, to a large extent, with the fall in oil prices.

Chart 8 • Exports and imports of goods and services | In percentage of GDP

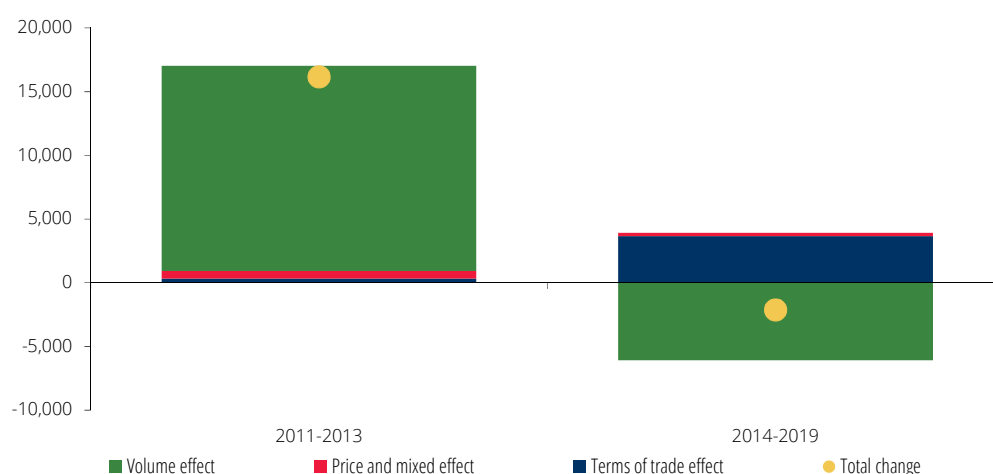


Sources: Statistics Portugal and Banco de Portugal.

9. The goods and services account was always in deficit in the period 1953-2011.

10. The weight of imports in GDP remained around 37% in the 1996-2010 period, standing at 38% in 2013.

Chart 9 • Breakdown of cummulative change in the goods and services account balance | Million euro



Sources: Statistics Portugal and Banco de Portugal | Notes: The change in the overall balance can be decomposed in three effects: 1) volume effect – effect of the change in quantities imported and exported, $[X_{t-1}.vxt] - [M_{t-1}.vmt]$; 2) price and mixed effect – effect of the average price growth of external trade, $[X_{t-1}.p]t - [M_{t-1}.pt]$ and effect of the interaction between the change in quantities and in prices of exports and imports, $[X_{t-1}.vxt.pxt] - [M_{t-1}.vmt.pmt]$; 3) terms of trade effect – effect of the relative change in exports and imports prices, $[X_{t-1}.(pxt-pt)] - [M_{t-1}.(pmt-pt)]$. The following notation applies: X_{t-1} and M_{t-1} are the exports and imports in year $t-1$ at current prices; vxt and vmt are the change rates in volume of exports and imports in t ; pxt and pmt are the change rates of exports and imports prices in t ; pt is the average change rate of the prices of external trade in year t $((pxt+pmt)/2)$.

The strong dynamism of real exports during the adjustment period and in recent years occurred against a backdrop of moderate growth of the external demand directed to the Portuguese economy, thus resulting in gains in market share in international markets (Chart 10). Those gains – in contrast to losses observed on average in the 1996-2010 period – were larger than those observed in other euro area countries.¹¹ Recently, tourism exports have largely outperformed those of other countries that are Portugal's close competitors in this type of services.¹² Export share developments show that Portuguese firms are increasingly oriented towards international markets and have risen in the value chain.¹³ The real exchange rate indicators point towards moderate gains in price competitiveness over the adjustment period.¹⁴ Non-price competitiveness factors, such as greater product differentiation and quality and the participation in global value chains, are likely to have played a more important role in the materialisation of export share gains. It should be noted, however, that in the past two years, market share gains were smaller and more concentrated in terms of sectors, with particular emphasis on the contribution of the automotive sector and tourism.

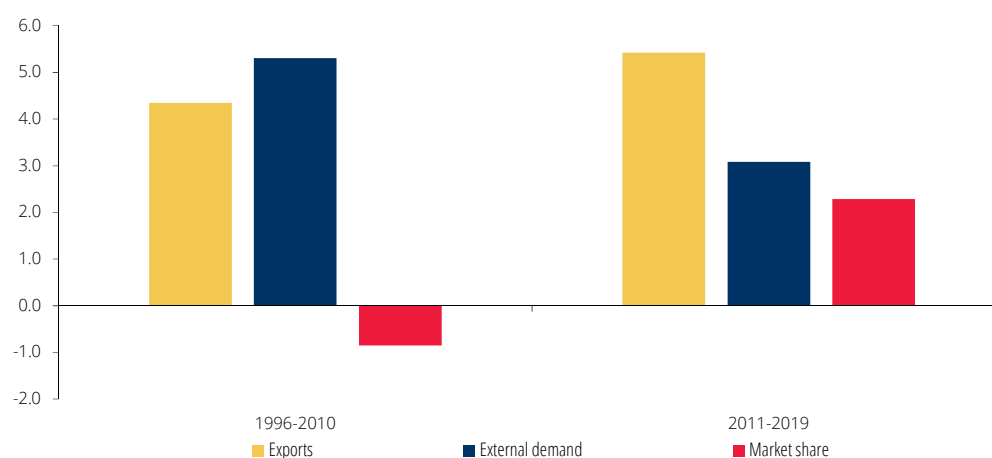
11. See Box "Recent developments in the market share of Portuguese exports", *Economic Bulletin*, June 2018.

12. See Special issue "Tourism exports: recent developments and future prospects", Banco de Portugal *Economic Bulletin*, December 2018.

13. These export dynamics started before the adjustment and reflected a process of adjustment to the pattern of comparative advantage resulting from the shocks of Asian competition and the enlargement of the EU and associated with the development of global value chains. This process deepened during the crisis, in the context of a strong contraction in domestic demand. Esteves and Rua (2015) and Esteves et al. (2018) show that, in view of adverse conditions in the domestic market, Portuguese firms redirected their sales to the foreign market.

14. According to the real exchange rate based on relative unit costs, the variation was around 7% between 2010 and 2013, while the measure based on consumer prices varied by 1%.

Chart 10 • Goods and services exports, external demand and export market share | Average annual rate of change in percentage and percentage points



Sources: ECB and Statistics Portugal (Banco de Portugal calculations).

Real imports of goods and services have returned to strong growth, after a sharp contraction in the adjustment period. This led to an increase in import penetration in recent years at a much faster pace than in the pre-crisis period.¹⁵ This behaviour is partly related to changes in the composition of the final demand, with particular emphasis on the buoyancy exports and GFCF in equipment and transport material, which have an imported content above average.¹⁶

The surplus that currently characterises the current and capital account also reflects the positive impact of net transfers with the EU and of private transfers.¹⁷ In the period 2014-2019, transfers with the EU resulted in an inflow of funds in the economy equivalent to 1.1% of GDP (compared to an average value of 1.8% of GDP in 1996-2010). Private transfers (which include migrants' remittances and social benefits and are recorded in the secondary income balance) have been gaining momentum due to the strong growth in social benefits received from abroad.¹⁸ In the 2014-2019 period, private transfers averaged 2.4% of GDP (1.6% of GDP in 1996-2010).

The primary income account, which records receipts and expenses relating to holding assets and liabilities abroad¹⁹, posted an average deficit of 2.4% of GDP, in the period 2014-2019 (Chart 5). This deficit results from the large international investment debtor position, which implies that income payments to third countries are higher than receipts. The deficit in the investment income account has been quite stable, in a context where increases in the implicit rate of return have offset the impact of the reduction in net external liabilities. This evolution shows that it is important to ensure a more significant reduction in the international investment debtor position, in particular

15. The penetration rate is measured as the ratio between the growth of imports and the growth of overall demand. On average, this rate increased by 2 p.p. per year in the 1996-2010 period, and by 3.2 p.p. in 2014-2019.

16. See the box "Update of the import content of global demand for the Portuguese economy", *Economic Bulletin* of Banco de Portugal, March 2019.

17. These transfers are recorded in the primary income account (subsidy component), the secondary income account (other current transfers) and the capital account (the capital transfers component). For a detailed analysis of the impact of EU funds received, see Box 2 entitled "Impact of EU funds on the current and capital account: Portugal 2020 in perspective", *Economic Bulletin* of Banco de Portugal, March 2019.

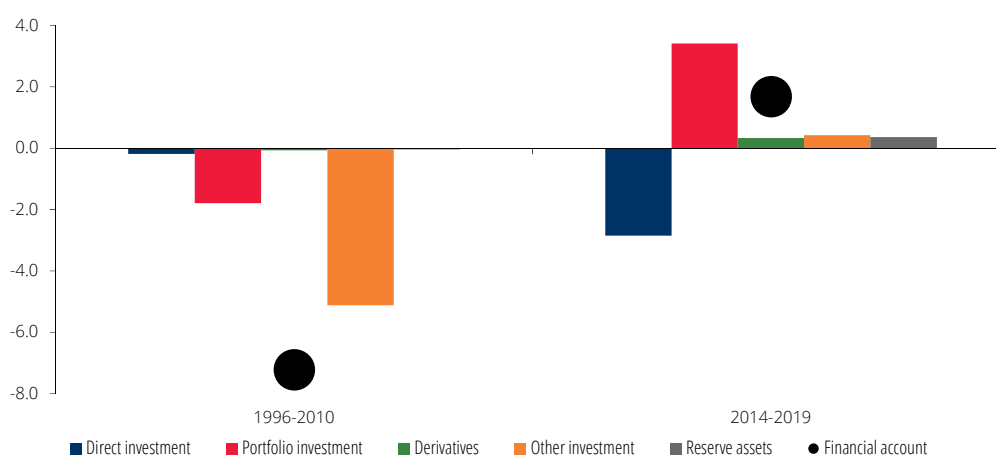
18. These benefits are received by Portuguese who have worked abroad and receive a retirement pension from abroad and by foreign retired persons who have chosen to reside in Portugal.

19. This investment income is the most important component of the primary income account. This account also records labour income and other primary income.

the debt component, so as to prevent a possible cycle of interest rate hikes from translating into a destabilising dynamics of the primary income account.

The counterpart of current and capital account surpluses in the recent period has been an outflow of funds in the financial account (Chart 11). This outflow of funds has been associated with the process of debt reduction of resident sectors (accounted for in the portfolio investment). This profile of financial operations with the rest of the world contrasts with that observed in the period of accumulation of imbalances, which was characterised by inflows of funds into the economy intermediated by the banking system and, to a lesser extent, by the sale of debt securities to non-residents (accounted for in other investment and portfolio investment, respectively). A positive element in recent financial account developments concerns the increase of net direct investment flows to the Portuguese economy, which amounted to an inflow of funds of 2.9% of GDP, on average, in the period 2014-19. It should be noted that this item includes purchases of real estate by non-residents, which increased significantly over the period.

Chart 11 • Financial account by functional category | Annual averages in percentage of GDP



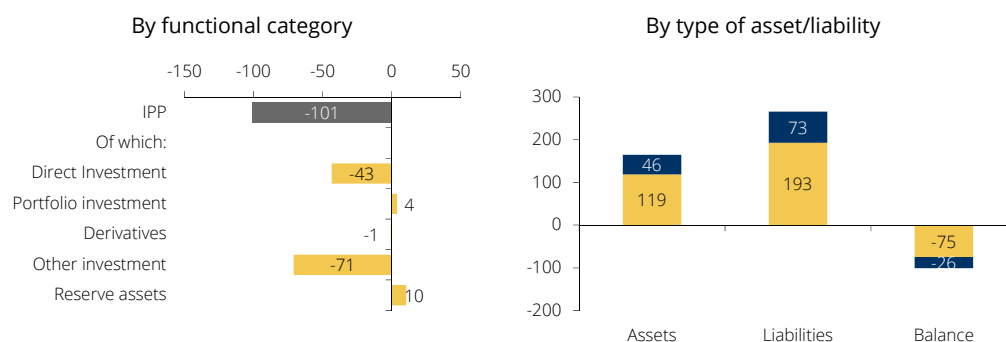
Sources: Statistics Portugal and Banco de Portugal. | Note: A positive (negative) value represents a net outflow (inflow) of funds from the economy, which can be materialised by investing (divesting) in foreign assets or by amortising (increasing) external liabilities (see the 6th edition of the IMF's Balance of Payments and International Investment Position Manual).

Despite the current account and capital surpluses recorded in the recent period, the international investment position (IIP) continued to deteriorate - further extending a trend that started in 1996²⁰ - and reached a minimum of -124% of GDP in 2014. In more recent years, the maintenance of current and capital account surpluses and, mainly, the nominal growth of GDP, resulted in a slight reduction in the Portuguese economy's debtor position (to -101% of GDP in 2019). The increase in the valuation of the economy's external liabilities, partly related to the improvement in the Portuguese debt rating in this period, prevented a more significant IIP improvement. Portugal maintains one of the most negative IIP-to-GDP ratios in the group of advanced economies, thus remaining particularly exposed to any abrupt change in international financial flows. Moreover, net liabilities in equity instruments weigh relatively little, with the debt portion being the most significant (85% of GDP) (Chart 12). This IIP composition has implications in terms of refinancing risk and vulnerability of the debt service to

20. Statistics are available since 1996, the year in which the IIP. was equivalent to -12% of GDP.

interest rate shocks. The reduction in the IIP ratio as a percentage of GDP to more prudent levels requires the maintenance of more significant current and capital account surpluses for an extended period (Box 3 – Scenarios for the evolution of the International Investment Position).

Chart 12 • International Investment Position in 2019 | In percentage of GDP



Sources: Statistics Portugal and Banco de Portugal.

Final considerations

The analysis of the balance of payments plays a key role in identifying the situation of an economy, directly impacting on its degree of exposure to shocks from abroad. In turn, the empirical evidence confirms that episodes of abrupt correction of current account deficits are associated with reductions in output growth.

The Portuguese economy presents a record of three external account crises in the past half century, which resulted from different combinations of external and internal factors. On two of these occasions, the economic and social effects were relevant. In particular, the external financing crisis associated with tensions in the sovereign debt markets in the euro area and the macroeconomic imbalances evidenced by the Portuguese economy – namely, the high levels of external indebtedness, of the public sector and the private sector, alongside a weak trend in GDP growth – led to large activity losses, job destruction and a strong decline in investment.

In the last adjustment period, which coincided with the economic and financial assistance programme, the improvement in the current and capital account balance was very significant and, in essence, was due to non-cyclical factors. In more recent years, the assessment of balance of payments developments has remained globally benign.

The evaluation of the outlook for the external accounts of the Portuguese economy should consider a number of risks. Firstly, the period leading up to the last crisis showed that the discipline imposed by international financial markets on the macroeconomic developments of euro area countries tends to be late and probably disproportionate. High external deficits persisting for such a long period should, like in previous crises, have led to progressive difficulties in external financing and consequently to an incentive to correct the imbalance. However, the perception that the Portuguese economy was economically and financially integrated in the European Union/Euro area and therefore would generate, in the future, the resources required to repay the liabilities incurred, did not trigger this reaction. On the other hand, with the sovereign debt crisis in the euro area, the existence of a country risk became evident even in a strongly integrated economic area

such as Europe, which led to the fragmentation of financial markets. However, the reinforcement of macroeconomic surveillance mechanisms in the EU, notably under the Macroeconomic Imbalances Procedure, and the revision of the risk models of financial rating agencies, have likely contributed to strengthen the external scrutiny. Secondly, the low inflation regime currently characterising the euro area translates into lower nominal interest rates but also into more subdued growth of nominal GDP, a variable that hinders the dynamics of debt indicators. Thirdly, downside risks related to the external environment have materialised. In cyclical terms, the crisis triggered by the spread of the Covid-19 virus impacts directly on tourism and disrupts trade in goods, based on global value chains. In addition, the losses recorded in financial markets and the global recession may hinder external financing, especially in the case of highly indebted countries. In structural terms, the risks associated with the intensification of protectionism prevail and may have adverse consequences as regards the growth of world activity and trade, with an impact on the performance of Portuguese exports. The oil price evolution, which has remained at very low levels, is also a risk with an impact on the external accounts of the Portuguese economy. Fourthly, transfers associated with EU funds and migrants' remittances and social benefits still contribute to the external balance, but there is uncertainty about their future developments. With respect to EU funds, negotiations are running on the European support cycle for the period 2021-2027, but the declining trend for the amounts received by Portugal, observed in the last programming periods, is expected to continue.

The sustainability of external accounts depends on savings and investment plans of domestic economic agents and on their intertemporal consistency. Against this background, it is important to properly assess economic growth prospects and, in particular, the future return on investment to avoid an excessive increase in the external indebtedness. The fiscal policy stance and its consequences for the financing needs of public administrations has also an impact on the current and capital account balance dynamics. Thus, the role of domestic policies should consider and potentially mitigate the effects of shocks on the external accounts balance. A repetition of the external financing crisis episodes of the Portuguese economy would tend to entail renewed social costs and reductions in investment efforts, delaying the real convergence process towards the EU average income levels.

The assessment of risks inherent to external account developments in Portugal cannot fail to consider the existing external debt stock, which is very high in historical terms and in terms of international comparisons. The dynamics of this indebtedness interacts with some of the risk factors listed above and is a signal for international markets of the vulnerability underlying the financing of the Portuguese economy.

The maintenance of a healthy situation of the Portuguese economy, where citizens' consumption needs are met and, concomitantly, a level of internal savings is compatible with the financing of private and public investment needs, without excessive and continued recourse to external financing, involves, inevitably, an increase in productivity levels. Only through a sound economic growth process, to which a coherent, sustained and socially shared structural reform agenda should contribute, can this type of result be obtained.

Box 1 • External accounts: concepts and relevance

A country's external accounts record its residents' creditor and debtor transactions and positions *vis-à-vis* non-residents. Balance of payments statistics follow international standards established by the International Monetary Fund.²¹

The current account of an economy comprises the goods and services account and the primary and secondary income accounts. The former account records the transactions of goods and services abroad. The primary income account registers payments related to external productive factors used in Portugal and receipts for national productive factors used abroad, including wages, interest and dividends. For example, the payment of interest associated with debts contracted abroad is recorded in this account with a negative sign. The secondary income account registers current transfers, which include migrants' remittances and current transfers from the European Union. In turn, the capital account records capital transfers, with particular emphasis on structural funds received from the EU. In short:

$$\text{Current and Capital Account} = X - M + R + BK$$

where X and M correspond to exports and imports of goods and services, respectively, R designates the primary and secondary income accounts and BK the capital account. The balance of goods and services is the main component of the current and capital account in Portugal and in most countries.

It should be noted that the external accounts balance can also be seen as resulting from a divergence between domestic savings and investment. Considering the basic identities of domestic accounting for income (Y) and savings (S) of the economy, we have:

$$Y = C + I + G + X - M$$

$$S = Y - C - G + R$$

where C represents private consumption, I represents investment and G represents public consumption. It is possible to rearrange the expressions to obtain:

$$S - I = (Y - C - G + R) - I = X - M + R = \text{Current account}$$

$$\text{Current and capital account} = S - I + BK = \text{Net lending/Net borrowing}$$

Thus, the current and capital account balance corresponds to the net lending (+) or net borrowing (-) of an economy *vis-à-vis* the rest of the world and equals the difference between residents' savings and investment, plus capital transfers. This formulation makes it clear that, unlike what happens in a closed economy, where investment always equals savings, in open economies part of the domestic investment can be financed by means of external savings, that is, by incurring a current and capital account deficit. This perspective shows how the current and capital account balance reflects the intertemporal savings and investment decisions of domestic economic agents. Such decisions are essentially determined by economic growth expectations. Conceptually, if the country expects an increase in income in the future, it may reduce current savings, which is reflected in a current account deficit. On the contrary, when a reduction in income is expected, the country should generate a current account surplus (that is, increase savings compared to investment), in order to maintain the level of consumption in the future.

21. The current version of these standards corresponds to the 6th edition of the IMF's Balance of Payments and International Investment Position Manual.

A current and capital account deficit is not necessarily a problem (just as a surplus is not always benign). For an economy, it can be optimal to use external financing as long as domestic investment opportunities justify so. In this case, the country incurs in external debt to finance investment, and that investment should translate into higher economic growth in the future, ensuring resources for debt repayment to the rest of the world. However, foreign borrowing may be excessive if the agents' decisions are affected by incorrect perceptions of the reality, in particular, an overestimation of growth prospects for the economy or an underestimation of the probability and magnitude of adverse shocks. For example, external deficits may reflect excessive (private or public) consumption expenditures (and low savings rates) that do not generate higher production and productivity in the future. This implies that the economy will not be able to generate external surpluses in the future to meet its obligations, which means that the deficits on the current and capital account are not sustainable. In these circumstances, the adjustment required will occur at some point in time, with repercussions on growth and employment. From this point of view, it is important to complement the analysis of external accounts with an assessment of developments in domestic savings and investment, broken down by institutional sector.

How a current and capital account deficit is financed (or how a surplus is applied) is also relevant information that is detailed in the financial account. This account records transactions on financial assets and liabilities *vis-à-vis* the rest of the world. These transactions result from offsetting current and capital accounts operations. A current and capital account deficit implies a net inflow of funds, which is recorded in the financial account as an increase in the economy's net liabilities. In contrast, a current and capital account surplus implies a net outflow of financial funds and corresponds to a reduction in net external liabilities. The basic identity of the balance of payments implies that, apart from any statistical discrepancies (errors and omissions), the financial account balance is equal to the current and capital account balance:

$$\text{Current and capital account} = \text{Financial account} + \text{errors and omissions}$$

$$\text{Financial account} = \text{net change in assets} - \text{net change in liabilities}$$

Financial transactions are classified in categories such as direct investment, portfolio investment, other investment (loans and deposits) and reserve assets. The structure of the financial account, in terms of its composition by type of assets, maturities and currency, unveils relevant information on the vulnerability of the economy to a change in external financing conditions. For example, foreign borrowing based on foreign direct investment flows is more stable than financing associated with the accumulation of liabilities of the domestic banking system *vis-à-vis* the rest of the world, particularly if they are of short-term maturity. Foreign currency borrowing also involves greater risk-taking.

The change in the International Investment Position (IIP) in a given year corresponds to the financial account balance – which equals the current and capital account balance, less errors and omissions – plus the effects of changes in the exchange rate or in asset and liabilities prices. The IIP registers the stocks of assets and liabilities of the economy *vis-à-vis* the rest of the world, with the balance being usually assessed as a percentage of the gross domestic product level. The persistence of current and capital account deficits leads to a downward trend in the international investment position. The level, composition and trajectory of the international investment position are relevant elements in assessing the sustainability of external accounts and the vulnerability of the economy to external shocks.

Box 2 • Cyclical adjustment of exports and imports of goods and services

There was a large decrease in the Portuguese foreign borrowing needs post-2010. However, it is important to assess the contribution of cyclical developments to this correction. In this box, such a contribution is assessed using the methodology proposed by Fabiani et al. (2016) and applied to Portugal by Amador and Silva (2019). This methodology focuses on the goods and services component and is based on external trade elasticities *vis-à-vis* the internal and external cycle.²² According to this methodology, the cyclical adjustment to exports-to-GDP ratio depends negatively on the output gap abroad. If the product of Portuguese trading partners exceeds their potential, those countries will import more and, therefore, domestic exports will benefit from external cyclical developments. With respect to imports as a percentage of nominal GDP, a cyclically-adjusted correction is achieved by using the ratio between potential and observed imports, in real terms. Potential imports are those that would prevail if domestic and external activity were jointly considered at their potential level, with (domestic) exports and domestic demand determined simultaneously. The import elasticity reflects the import content from the different components of domestic expenditure and exports, with the domestic output gap being the major element.

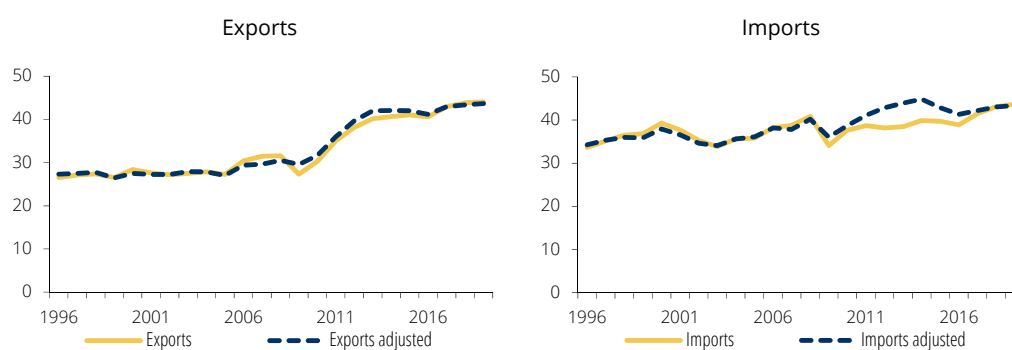
The caveats to this approach are related to the uncertainty in determining output gaps (and associated revisions) and in trade elasticities. Moreover, it should be noted that adjustments stemming from the methodology are solely related to output gaps in Portugal and abroad, that is, all the remaining change in exports and imports is considered in the unadjusted-cycle component, even though it may be partially attributable to temporary aspects.

Chart C2.1 shows the observed and economic cycle adjusted series of exports and imports of goods and services as a percentage of GDP. On the exports side, an element that stands out is the strong increase in its weight in GDP since the beginning of the century. The comparison of the two series points to a rather small contribution of cyclical developments in foreign markets to the trajectory of Portuguese exports. In the years preceding the 2008 crisis, positive output gaps abroad led Portuguese exports to levels above the cyclically-adjusted figure. In contrast, the sovereign debt crisis in the euro area brought the export ratio to below the cyclically adjusted level. In the recent period, the differences between the two series are irrelevant. On the imports side, the results show that, from 1996 to 2008, the behaviour of imports of goods and services is largely explained by non-cyclical factors. However, in the adjustment period and in subsequent years, the fact that the weight of imports in GDP is systematically below the cyclically adjusted level means that the negative output gap – associated with a contraction in domestic demand – contributed to sharply reduce imports.

The combined cyclical adjustment of exports and imports points to the fact that most of the observed evolution of the goods and services account balance, in the adjustment period and in subsequent years, has been of a non-cyclical nature (Chart C2.2).

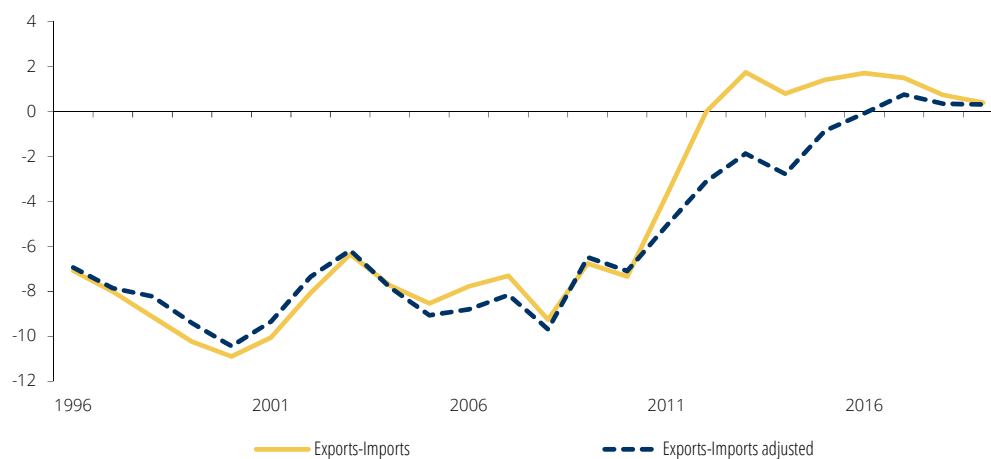
22. An alternative methodology is based on estimating regressions where the current account balance is correlated with a set of demographics, macroeconomic, financial and institutional variables. The structural current account is obtained by applying the estimated coefficients to the trend values of the explanatory variables. This approach generally considers a panel of countries and a long period of time. For applications of this methodology to euro area countries, see Coutinho et al., 2018 and IMF, 2014.

Chart C2.1 • Exports and imports – observed and cyclically adjusted, 1996-2019 | In percentage of GDP



Sources: Statistics Portugal and Banco de Portugal.

Chart C2.2 • Goods and services account – observed and cyclically adjusted balance, 1996-2019 | In percentage of GDP



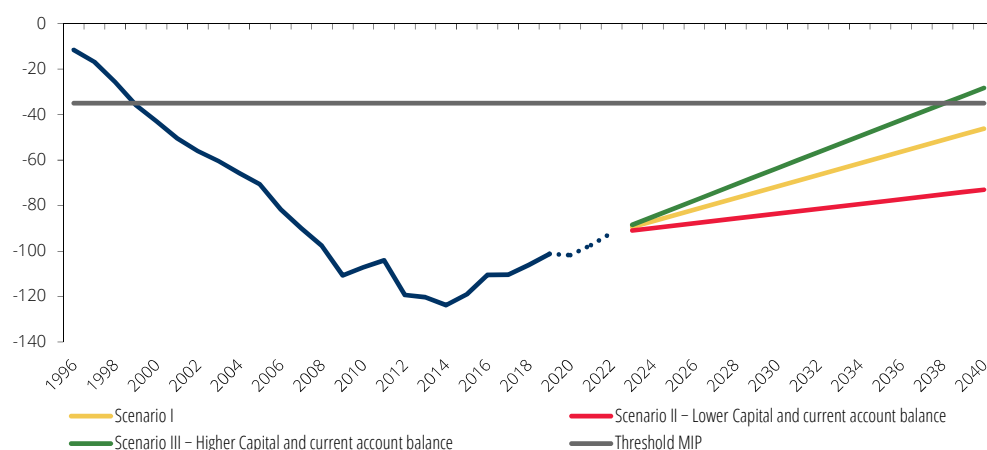
Sources: Statistics Portugal and Banco de Portugal.

Box 3 • Scenarios for the evolution of the International Investment Position

The evolution of the IIP ratio as a percentage of GDP depends on the financial account balance, the nominal GDP growth, the valuation of financial assets and liabilities, as well as the exchange rate changes and other adjustments. Using some simplifying assumptions, it is possible to assess the sensitivity of the IIP trajectory to different scenarios for the current and capital account balance.

Chart C3.1 presents the results of these simulations. In a conservative scenario of maintenance of external balances close to zero, the debtor position is reduced very gradually due to the nominal GDP growth, reaching levels close to 70% of GDP in 2030. A more pessimistic scenario, with regular external deficits of around 1.8% of GDP, would imply the IIP to be around -85% of GDP, at the end of the next decade. Alternatively, should the external balance sustain a surplus of around 1% of GDP, the indebtedness of the Portuguese economy would drop to 65% of GDP, in 2030. These results are only illustrative and surrounded by a high degree of uncertainty. It should be noted that the paths presented for the current and capital account are sensitive to shocks to the external environment. In particular, negative shocks to the external demand directed to the Portuguese economy or an increase in interest rates may postpone or undermine the IIP convergence process to more prudent levels.

Chart C3.1 • Scenarios for the evolution of the International Investment Position | In percentage of GDP



Sources: Statistics Portugal and Banco de Portugal. | Notes: Until 2022, the projections presented in this bulletin for GDP and for the current and capital account (baseline scenario, dashed line) were considered. The post-2022 scenarios consider a nominal GDP growth rate of 3.5% and an implicit return on the international investment position close to that observed in the recent period. The current and capital account is divided into two components: the income account and the balance. The evolution of the income account is determined by the IIP stock and the implicit rate of return. The remaining account is the variable upon which the scenarios are formulated. Three scenarios are assumed for this balance: in scenario I, this balance is 2.5% of GDP, similar to the last projection year figures; in scenario II, a lower balance (around 1% of GDP) is assumed and in scenario III, a higher balance (3.5% of GDP) is considered. The evolution of the IIP as a percentage of GDP results from the accumulation of current and capital account balances, assuming that changes in price, exchange rates and other adjustments are nil. The chart also shows the -35% of GDP threshold for the IIP, considered in the macroeconomic imbalances procedure to which EU countries are subject in the context of the European semester. This threshold corresponds to the lower quartile of the distribution of the IIP ratio in EU member states' GDP.

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