

ECONOMIC BULLETIN

DECEMBER 2024



BANCO DE
PORTUGAL
EUROSYSTEM

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I The Portuguese economy in 2024-27

1 Projections for the Portuguese economy: 2024-27

Box 1 External environment, financing conditions and policies

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1 Projections for the Portuguese economy: 2024-27

Growth in the Portuguese economy is expected to stand at 1.7% in 2024, to increase to 2.2% in 2025 and 2026, and to edge down to 1.7% in 2027 (Table I.1.1). The greater momentum in activity over the next two years reflects a more favourable environment, with improved financial conditions, an expected acceleration in external demand and larger inflows of EU funds (Box 1 – External environment, financing conditions and policies). However, the external environment is subject to significant economic and geopolitical downside risks. The labour market will remain robust, with increases in employment and real wages combined with low unemployment. The expansionary and pro-cyclical fiscal policy stance will also contribute to a greater momentum in activity. In 2027, the deceleration of GDP will largely stem from the impact of the end of the implementation of the Recovery and Resilience Plan (RRP). Over the period 2024-27, the growth differential in relation to the euro area will average 0.8 p.p. Compared to the October issue of the *Economic Bulletin*, growth in 2024-25 was revised upwards by 0.1 p.p., mainly reflecting the greater fiscal expansion, associated with the inclusion of new tax measures and an increase in government spending, as well as the rescheduling of expenditure within the scope of the RRP.

Table I.1.1 • Projections of the Banco de Portugal: 2024-27 | Annual percentage change (except where stated otherwise)

	Weights 2023	EB December 2024					EB October 2024			
		2023	2024 ^(p)	2025 ^(p)	2026 ^(p)	2027 ^(p)	2023	2024 ^(p)	2025 ^(p)	2026 ^(p)
Gross domestic product (GDP)	100.0	2.5	1.7	2.2	2.2	1.7	2.5	1.6	2.1	2.2
Private consumption	61.8	2.0	3.0	2.7	1.9	1.8	2.0	2.5	2.3	1.9
Public consumption	16.8	0.6	1.1	1.1	0.8	0.3	0.6	1.0	0.9	0.8
Gross fixed capital formation	20.1	3.6	0.5	5.4	4.6	0.1	3.6	0.8	5.4	5.1
Domestic demand	99.1	1.7	2.2	2.9	2.3	1.2	1.7	1.9	2.6	2.3
Exports	47.3	3.5	3.9	3.2	3.3	3.2	3.5	3.8	3.3	3.4
Imports	46.4	1.7	5.2	4.7	3.4	2.1	1.7	4.5	4.4	3.7
Employment ^(a)		1.0	1.3	0.8	0.7	0.4	1.0	1.1	0.6	0.9
Unemployment rate ^(b)		6.5	6.4	6.4	6.4	6.4	6.5	6.4	6.4	6.4
Current and capital account (% of GDP)		1.9	3.6	4.0	3.9	3.3	1.9	4.2	4.1	4.0
Trade balance (% of GDP)		1.2	2.4	2.0	2.0	2.6	1.2	2.5	2.1	2.1
Harmonised index of consumer prices (HICP)		5.3	2.6	2.1	2.0	2.0	5.3	2.6	2.0	2.0
Excluding energy and food		5.4	2.7	2.4	2.2	2.1	5.4	2.6	2.3	2.3
GDP deflator		6.9	4.9	3.3	2.5	2.2	6.9	4.5	2.9	2.7
Fiscal balance (% of GDP)		1.2	0.6	-0.1	-1.0	-0.9	–	–	–	–
Public debt (% of GDP)		97.9	91.2	86.5	83.5	81.3	–	–	–	–

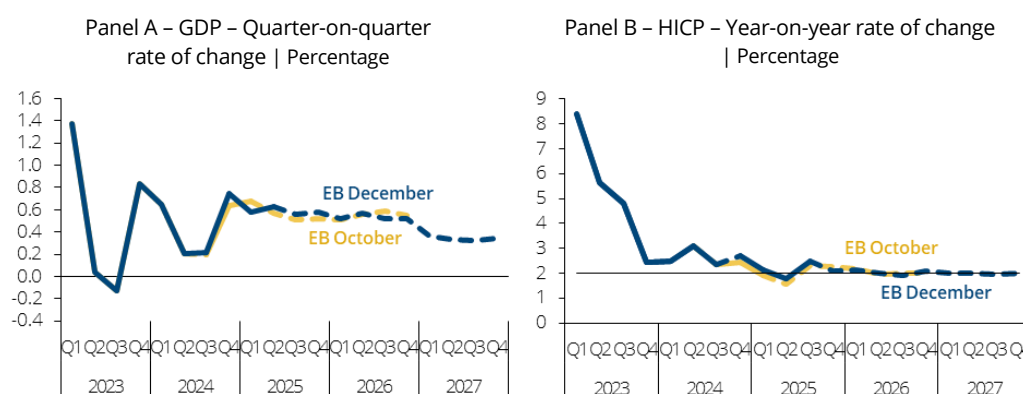
Sources: Banco de Portugal and Statistics Portugal. | Notes: (p) – projected, % – percentage. The cut-off date for the projections was 25 November. For each aggregate, this table shows the projection corresponding to the most likely value, conditional on the set of assumptions. Weights at current prices. (a) According to the national accounts concept. (b) As a percentage of the labour force.

Inflation is expected to fall from 5.3% in 2023 to 2.6% in 2024 and 2.1% in 2025, stabilising at 2% in 2026-27. These developments reflect the gradual moderation in wage costs and the maintenance of contained external inflationary pressures. The inflation differential in relation to the euro area is approximately zero over the projection horizon.

Fiscal projections point to a return to a deficit, although the public debt ratio will remain on a downward path. Estimates indicate that this year's budget surplus could reach 0.6% of GDP, above the 0.4% projected in the State Budget for 2025 (Table I.1.1). The current projection points to a balance of -0.1% of GDP in 2025, below the 0.3% estimated in the State Budget for 2025. Over subsequent years, the continued fiscal deficit will be explained by the effects of the permanent measures already adopted – with an impact on both public expenditure and tax revenue –, the RRP loans planned for 2026 and, as of 2027, the increase in national expenditure needed to ensure the continuity of RRP-funded projects. Over the horizon, the fiscal policy stance will be expansionary and pro-cyclical, as reflected in a cumulative deterioration in the structural primary balance by more than 2 p.p. of GDP between 2024 and 2027, against a background where GDP remains above potential. In the absence of further expenditure-reducing or revenue-increasing measures, compliance with the new European fiscal rules may be compromised (Box 2 – The reference trajectory in the new European fiscal rules and Box 3 – Projections for net government expenditure in Portugal). Public debt as a share of GDP will continue to decrease, down from 97.9% in 2023 to 81.3% in 2027. However, this decline will slow down over the projection period, reflecting deteriorating fiscal conditions and a lower contribution of nominal economic growth. In view of the estimates included in the State Budget for 2025 and the mid-term budgetary plan, the debt ratio is projected to decline more sharply, mainly on account of zero deficit-debt adjustments.

Quarterly projections point to an acceleration in activity at the end of 2024 and a temporary increase in inflation in the fourth quarter (Chart I.1.1). GDP is expected to accelerate to 0.7% quarter-on-quarter growth at the end of the year, following 0.2% growth in the second and third quarters of 2024 (Chart I.1.1 – Panel A). In the third quarter, domestic demand accelerated, while exports declined, reflecting a slowdown in goods and a decline in tourism in the summer. The projected acceleration in the fourth quarter is due to stronger private consumption and the expected pick-up in exports, reflecting rising disposable income and external demand behaviour. Inflation dropped to 2.3% in the third quarter, after increasing in the second quarter, and stood at 2.7% in November. The recent volatility in inflation has been mainly the result of one-off effects on accommodation service prices. In the fourth quarter, inflation is expected to stand at 2.7%, partly reflecting base effects in energy prices, and to remain at around 2% throughout 2025 (Chart I.1.1 – Panel B).

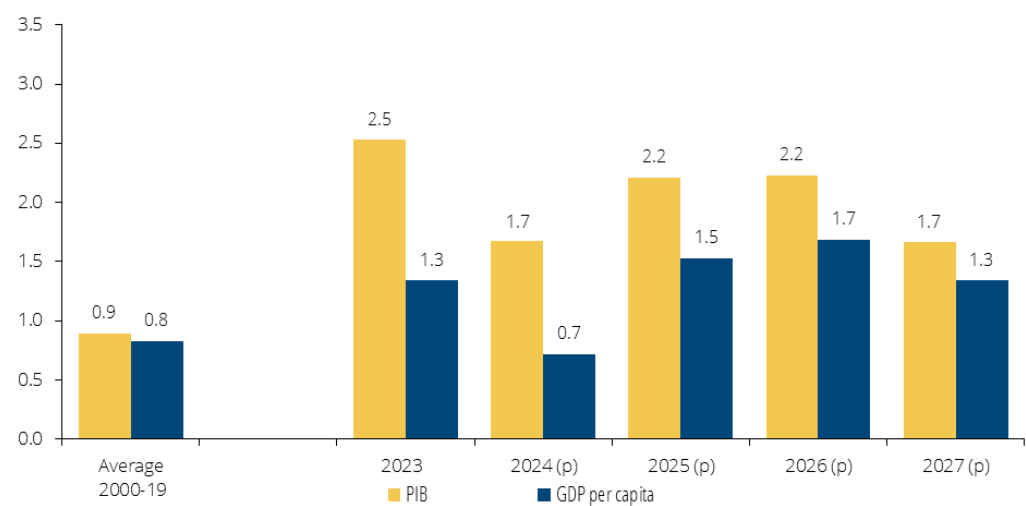
Chart I.1.1 • Quarterly GDP and inflation projections



Sources: Banco de Portugal and Statistics Portugal. | Note: The dashed lines correspond to the projected values in the EB of October and December 2024.

Per capita income will grow at a slower pace than GDP, reflecting the increase in population (Chart I.1.2). This population increase is the result of significant positive net migration that more than offsets the negative natural balance. Immigrants have had a positive effect on the economy, particularly by mitigating labour shortages in some sectors. Between 2019 and 2023, while GDP rose by 6.3%, GDP per capita grew by 3.7%, a trend that will continue over the projection horizon. In 2027, GDP is expected to be 15% higher than in 2019 and GDP per capita 9%.

Chart I.1.2 • GDP and GDP per capita | Annual percentage change

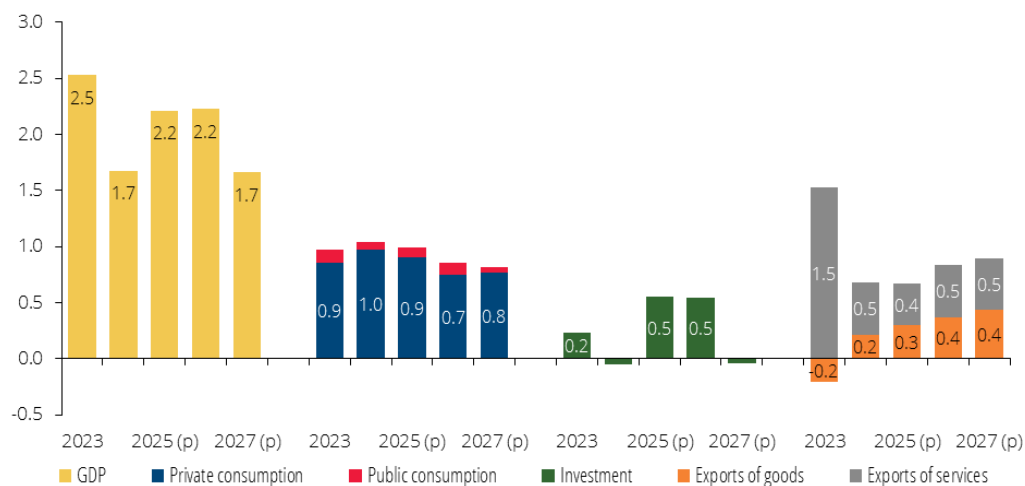


Sources: Banco de Portugal and Statistics Portugal. | Note: (p) – projected.

The composition of economic growth will change over the projection horizon, reflecting high investment volatility (Chart I.1.3). In 2024, economic growth was mainly supported by consumption, with a contribution (net of import content) of 1 p.p. in 1.7%. The contribution of investment is expected to be nil in 2024, turning positive in 2025-26 and back to zero in 2027, reflecting the drop in the public component this year. The contribution of exports of goods and services will decrease in 2024 – following the high figures posted in 2023, still influenced by the post-pandemic recovery in services – but will gradually recover over the horizon, in line with the expected behaviour of external demand.

In 2024, real disposable income hit a record high, translating into accelerating private consumption and a marked increase in savings (Chart I.1.4). Real disposable income will increase by 7.1% (2.7% in 2023) compared with 3% growth in private consumption (2% in 2023). The acceleration in disposable income is explained by the higher contribution of transfers received by households (notably pensions) and from corporate and property income (encompassing compensation for self-employment, net interest earnings, dividends, rents, among others), as well as the contribution of tax cuts (Chart I.1.5). The measures on personal income tax benefit higher-income households proportionally more (Box 4 – The impact of changes to personal income tax and social benefits on income distribution in 2024 and 2025). Evidence suggests that higher-income and older-aged households have higher saving rates (Box 5 – The distribution of household saving in Portugal). For 2025-27 private consumption is projected to grow more in line with real disposable income, which will decelerate, reflecting lower wage and employment growth and the fading effects of fiscal measures (Charts I.1.4 and I.1.5). The saving rate will stabilise at just above 11%.

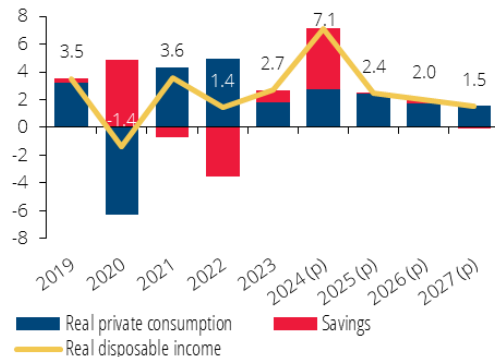
Chart I.1.3 • GDP rate of change and contributions from expenditure components (net of import content) | Percentage and percentage points



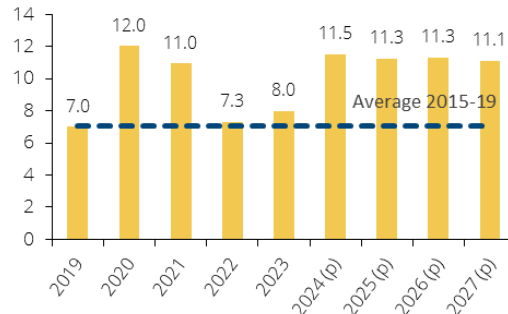
Sources: Banco de Portugal and Statistics Portugal. | Notes: (p) – projected. For further information on the methodology for calculating contributions net of import content, see Cardoso and Rua (2021), “Unveiling the real contribution of final demand to GDP growth”, *Banco de Portugal Economic Studies*, Volume VII, No 3.

Chart I.1.4 • Real disposable income, consumption and savings

Panel A – Uses of real disposable income | Annual percentage change and contributions in percentage points



Panel B – Saving rate | Percentage

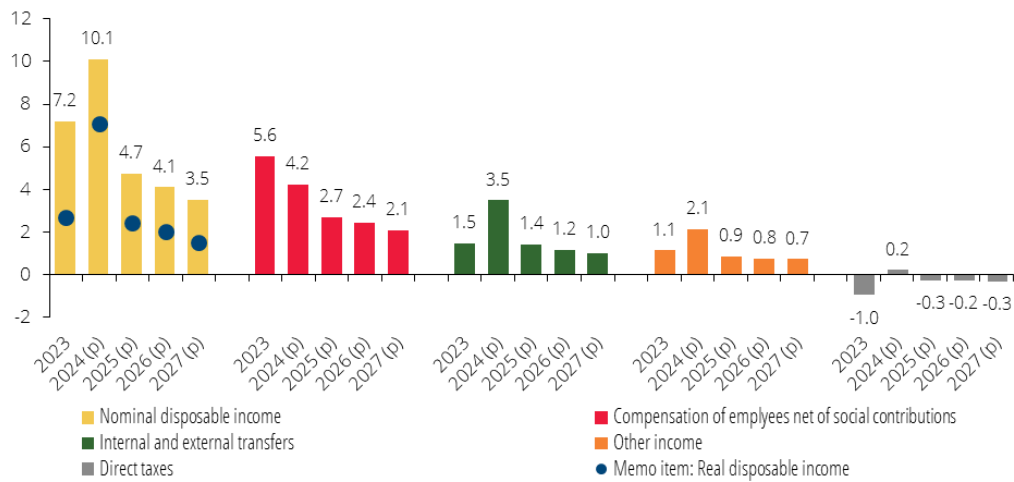


Sources: Banco de Portugal and Statistics Portugal. | Note: (p) – projected.

The rise in savings in 2024 reflects the impact of high interest rates, precautionary motives and the restoring of the real value of financial wealth, in addition to the composition effect of the increase in income favourable to savings. Higher interest rates (compared to those observed in the decade prior to the inflationary outbreak) seem to be inducing households to delay consumption, cut back on loans and save more. Households may also be saving to cope with future real income shocks. Increased consumer caution is suggested by developments in confidence, which, despite having improved, remain low given the momentum in real disposable income (Chart I.1.6). Finally, the inflationary outbreak implied a reduction in the purchasing power of net financial assets held by households, particularly among the wealthiest households, which may also have stimulated savings in the recent period to increase the real value of these assets (Box 6 – Recent evolution of wealth for different groups of households). The relative importance of these factors is difficult to

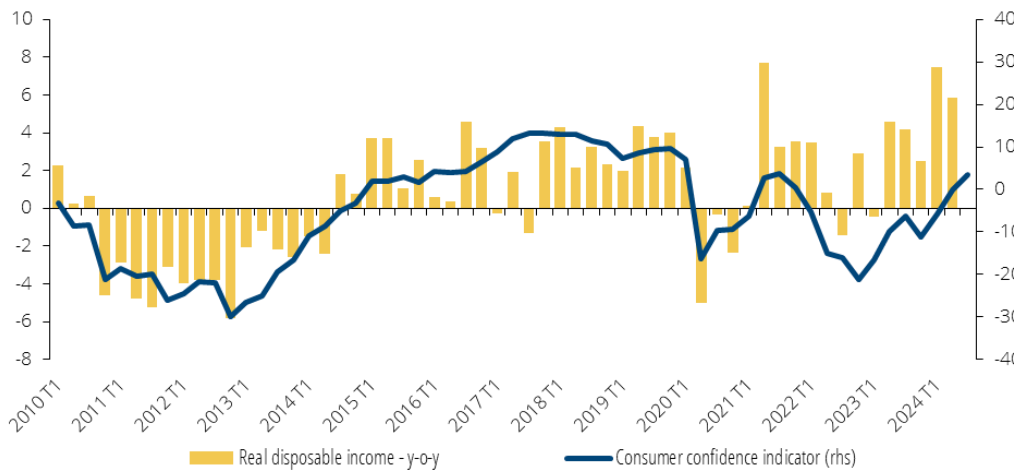
gauge, and their impact may ease over the remainder of the projection horizon, implying upside risks to the projection for private consumption in those years.

Chart I.1.5 • Rate of change in nominal disposable income and contribution of components | Percentage and percentage points



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

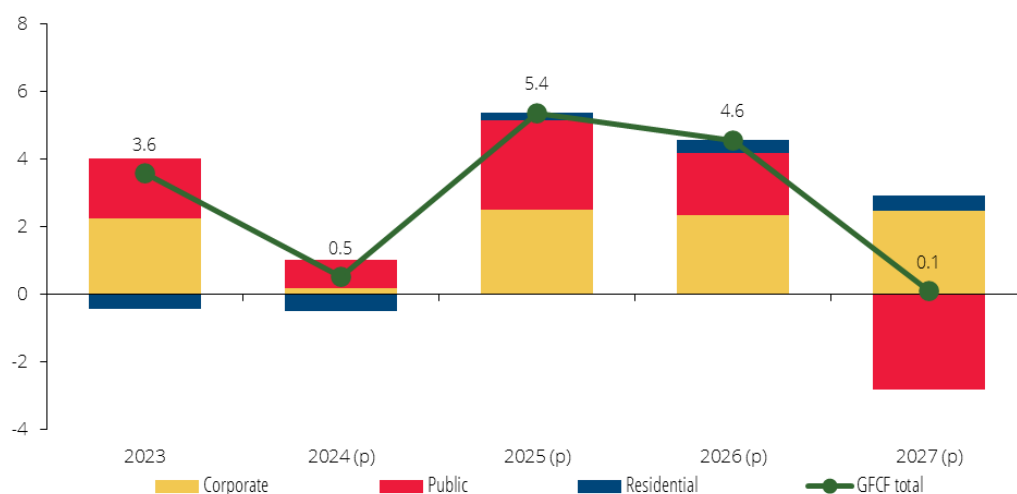
Chart I.1.6 • Real disposable income and consumer confidence | Year-on-year percentage change and balance of respondents



Sources: Statistics Portugal and European Commission (Consumer Survey).

Investment is expected to regain momentum in 2025-26 due to improved financial conditions, a better global outlook and the stimulus provided by EU funds (Chart I.1.7). In 2024, the 0.5% growth in GFCF mainly stems from the public component, with corporate investment and household investment in housing continuing to be hindered by tight financial conditions and low confidence. The situation will improve in 2025-27, reflecting a further reduction in interest rates. Public investment will accelerate in 2025-26 due to the expected increase in the implementation of EU funds, only to decrease in 2027 following the end of the RRP.

Chart I.1.7 • Gross fixed capital formation and components | Annual percentage change and contributions in percentage points



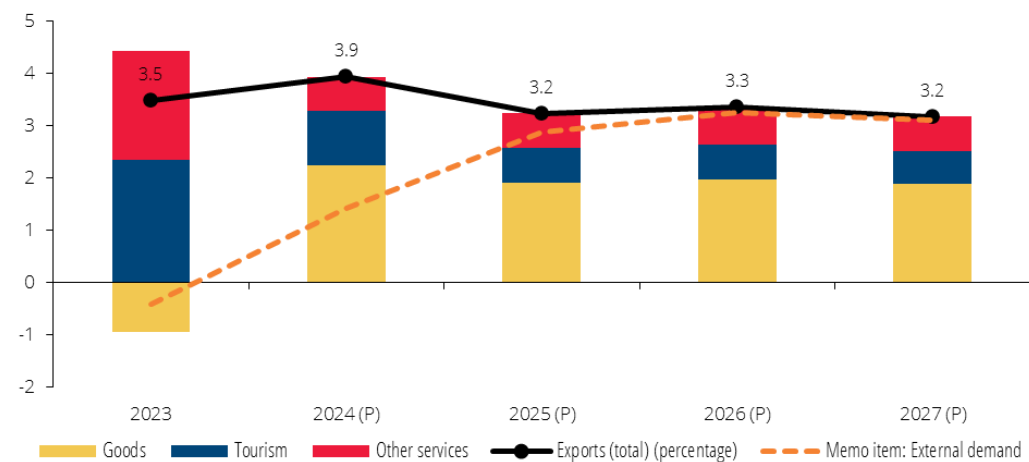
Sources: Banco de Portugal and Statistics Portugal. | Note: (p) – projected.

Exports are expected to grow by 3.9% in 2024 and 3.2% on average in 2025-27, against a background of accelerating external demand, less buoyant tourism and progressively smaller share gains (Chart I.1.8). Goods exports recovered in 2024, more markedly than in other euro area countries, where the export sector has been affected by competitiveness problems. In the first half of 2024, Portuguese goods exporters continued to gain market share in the EU in nominal terms, with positive contributions from most product groups. Goods exports are expected to grow by 3.8% in 2024 (after contracting by 1.5% in 2023) and 3.3% on average in 2025-27. The deceleration in tourism exports reflects the normalisation of global consumption patterns following the strong post-pandemic recovery in demand for these services. This component is still expected to grow at a faster pace than total exports in 2024 (5.5%) and at a relatively close pace thereafter (3.4% on average). Other services exports are expected to grow by 3% on average in 2024-27, which is a deceleration from the high growth recorded in the post-pandemic period. The increased fragmentation of the global economy poses downside risks to projections for exports (Special issue – Portuguese international trade and the fragmentation of the global economy).

Imports are expected to grow over the projection horizon at a faster pace than in 2023, as a result of the increase in the import content of global demand, associated with a greater momentum in exports of goods and GFCF (Table I.1.1).

The external surplus will increase from 1.9% of GDP in 2023 to 3.8% on average in 2024-26, only to decrease to 3.3% in 2027, constrained by the profile of transfers with the EU (Chart I.1.9). EU net transfers will increase to 1.7% of GDP in 2024 and 2.7% in 2025 and 2026, decreasing to 1.4% of GDP in 2027 following the end of the RRP. The goods and services account balance is expected to average 2.2% of GDP over the projection horizon, reflecting a deficit of 9% of GDP in goods and a 11.2% surplus in services. The economy's high net lending in 2024-27 reflects the private sector saving-investment balance, in particular of households, with the general government balance making a slightly negative contribution on average.

Chart I.1.8 • Exports of goods and services | Annual percentage change and contributions in percentage points



Sources: Banco de Portugal, Statistics Portugal and ECB. | Notes: (p) – projected. The external demand indicator for Portuguese goods and services consists of an average of imports of trading partners, weighted by their share in Portuguese exports.

Chart I.1.9 • Current and capital account and components | Percentage of GDP



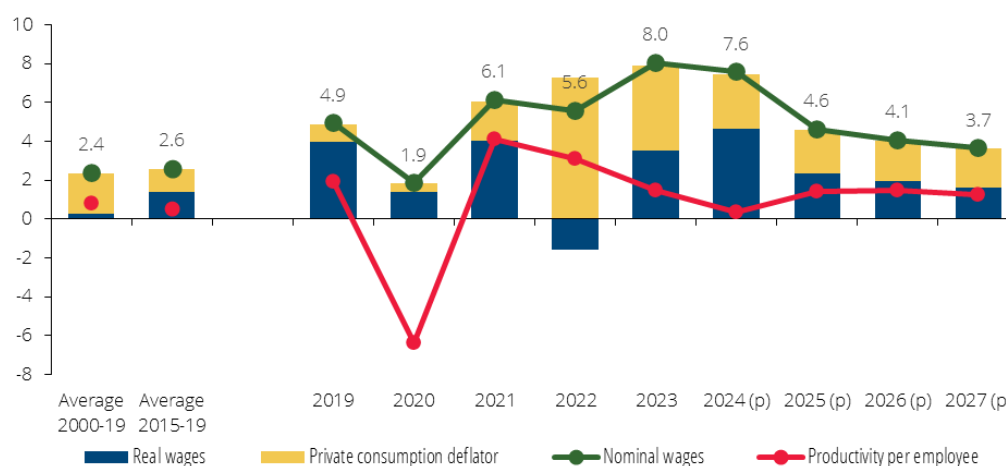
Sources: Banco de Portugal and Statistics Portugal. | Note: (p) – projected.

Employment is expected to continue to grow despite its decelerating profile. In the post-pandemic period, employment growth largely stemmed from hired foreign labour, which made it possible to sustain the momentum of economic activity. These workers have offset the impact of an ageing Portuguese population, reflected in a lower entry of young people into the labour market (Box 7 – An analysis of hiring and separation flows in the Portuguese labour market). Over the projection horizon, employment is expected to increase by 1.3% in 2024 and to gradually decelerate to 0.4% in 2027. This deceleration is in tandem with more contained developments in the working-age population – with positive net migration, but lower than the peaks recorded in the recent past, and the maintenance of a negative natural balance – as well as marginal increases in the participation rate. The unemployment rate is expected to remain historically low (Table I.1.1).

Wages per worker are expected to decelerate over the projection period, in line with lower inflation expectations (Chart I.1.10). After a 7.6% increase in 2024, nominal wage growth is

expected to stand 4.6% in 2025 and to decelerate to 3.7% in 2027, also reflecting lower minimum wage increases. In the public sector, a greater momentum in wages is expected, reflecting the impact of revising careers in some sectors and the new rules for assessing performance and for career progression announced in 2024. Real wages will increase by 4.6% in 2024 (after 3.5% in 2023), with growth projected to slightly outpace productivity in 2025-27 (Chart I.1.10). Productivity per worker is expected to grow by 1.4% on average in 2025-27, exceeding the 2000-19 average (0.8%). Higher productivity growth reflects structural changes in the Portuguese economy, such as improvements in the skills of the population, the increase in the capital stock and employment gains in more technology-intensive and knowledge-intensive sectors.

Chart I.1.10 • Nominal and real wages per worker and productivity | Annual percentage change

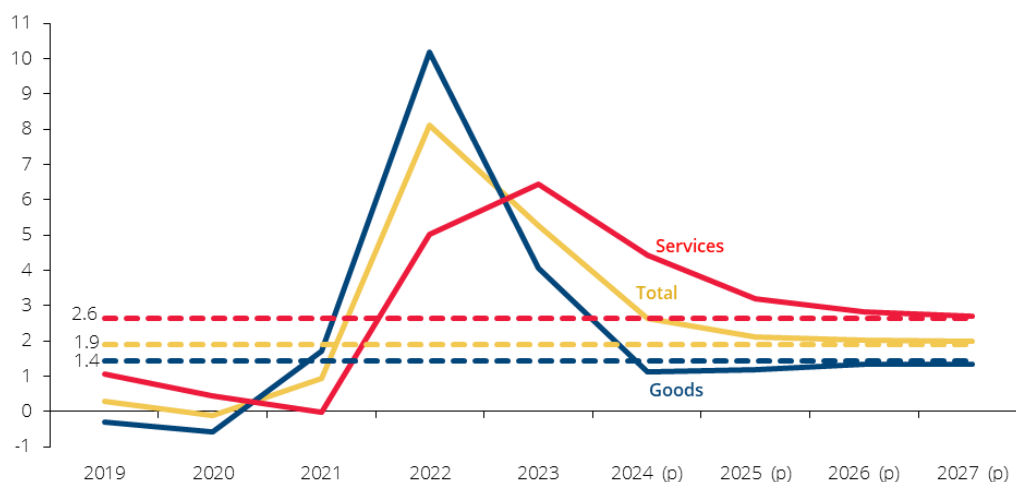


Sources: Banco de Portugal and Statistics Portugal. | Notes: (p) – projected. The private consumption deflator was used to calculate real wages.

Inflation is expected to decline further and to be close to 2% in 2025-27, with pressure on services prices remaining above that of goods (Chart I.1.11). The decline in inflation in 2024 stems mainly from lower external pressures on the goods component, as reflected in the reduction in the import deflator. Consumer good prices will decelerate to 1.1% (4.1% in 2023), with the component excluding food and energy declining slightly (-0.6%). Services prices will also grow more slowly than in the previous year, but still markedly (4.4%), reflecting their greater dependence on domestic market conditions, in particular on labour cost developments. Growth in the HICP for services is expected to decline further in the coming years, moving closer to its historical average, as wage pressures normalise. By contrast, the HICP for goods is expected to accelerate, converging towards the average rate of change over the period 2000-19.

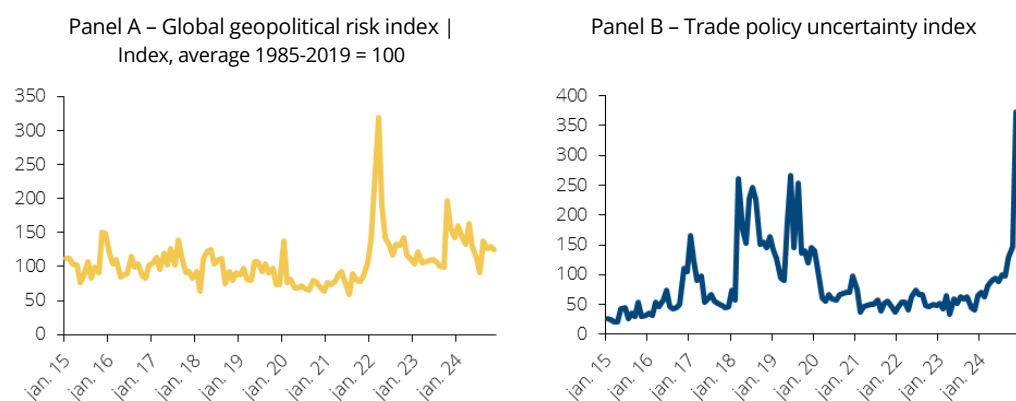
The balance of risks surrounding the projection for activity is skewed downwards, as prevailing external risks increase, while risks to inflation are balanced. Geopolitical tensions continue to pose a significant adverse risk, especially if ongoing armed conflicts worsen or disrupt global commodity markets (Chart I.1.12). Greater protectionism involving the world's largest economies – in particular the imposition of US tariffs and retaliatory measures by the targeted countries – could also jeopardise projections for global activity, reducing international trade growth. This scenario of increased protectionism renders the outlook for the export sector more unpredictable, with heightened uncertainty also being detrimental to the acceleration in corporate investment. In terms of domestic risks, there are difficulties in implementing EU funds, which may also imply less buoyant investment. However, there is still an upside risk associated with a stronger reaction of private consumption to the increase in disposable income.

Chart I.1.11 • HICP | Annual percentage change



Sources: Banco de Portugal and Statistics Portugal. | Notes: (p) – projected. The dashed lines correspond to the 2000-19 period average.

Chart I.1.12 • Geopolitical risk and trade policy uncertainty indicators



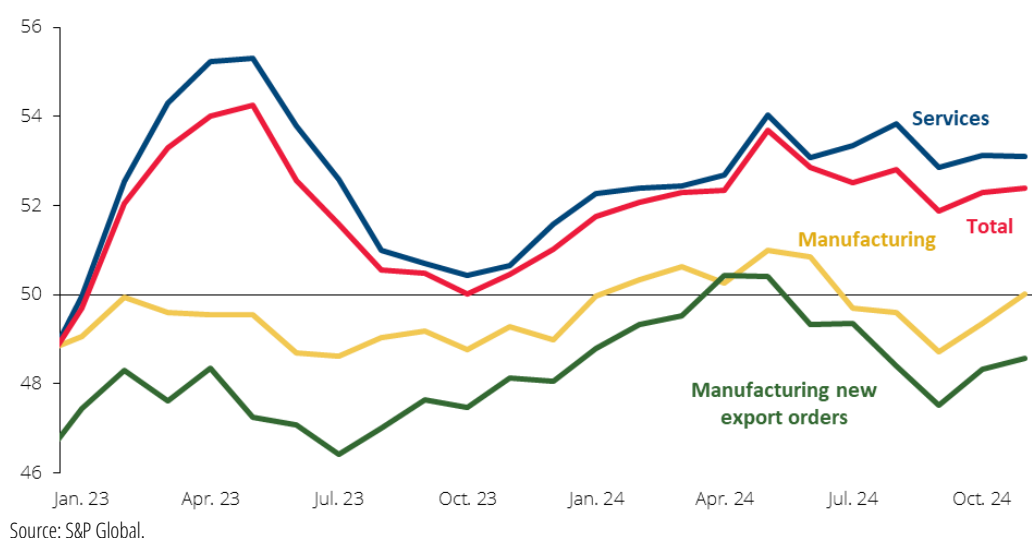
Sources: Caldara and Iacoviello (2022), and Caldara, Iacoviello, Molligo, Prestipino and Raffo (2019). | Notes: The global geopolitical risk index is calculated using automated text search in ten newspapers (Chicago Tribune, Daily Telegraph, Financial Times, The Globe and Mail, The Guardian, Los Angeles Times, The New York Times, USA Today, The Wall Street Journal, and The Washington Post). When counting the proportion of articles discussing geopolitically adverse events, eight subcategories are covered: war threats, peace threats, military buildups, nuclear threats, terror threats, beginning of war, escalation of war and terror acts. The trade policy uncertainty index measures the monthly frequency of news related to trade policy uncertainty, obtained from automated text search in the electronic archives of seven newspapers (The Boston Globe, Chicago Tribune, The Guardian, Los Angeles Times, The New York Times, The Wall Street Journal and The Washington Post). The index is calculated in such a way that 100 indicates that 1% of the articles contain references to trade policy uncertainty. Latest observation: November 2024.

Inflation can exceed projections if the scenarios of worsening conflicts – with an impact on commodity and shipping prices – or increased restrictions on international trade materialise, leading to a hike in import prices. In addition, lower-than-anticipated deceleration in wages, in a context of labour supply constraints, also poses upside risks to inflation. By contrast, the materialisation of downside risks to activity would result in lower price pressures.

The persistence of major geopolitical downside risks, the materialisation of which would have a marked impact on the global economy, reinforces the need for a reorientation of fiscal policy to ensure the appropriate room for response.

Box 1 • External environment, financing conditions and policies

Eurosystem projections point to moderate global economic activity growth in 2024-27, although economic and geopolitical tensions imply high uncertainty. Recent developments in the global economy have been characterised by substantial growth differences across regions and sectors. The momentum in the US and emerging economies (excluding China) contrasts with the weakness of major European economies and the slowdown in China. The momentum in services continues to support activity, in contrast to weakening industry (Chart B.1.1). Global economic dynamics remain fragile, with significant risks from escalating geopolitical conflicts or from protectionism. Global GDP is projected to grow by 3.1% in 2024, 3.2% in 2025 and slightly less in the following years, reflecting the gradual slowdown in China's activity (Table B1.1).

Chart B1.1 • Global Purchasing Managers' Index (PMI) | Diffusion index

Euro area activity is expected to accelerate gradually, benefiting from lower interest rates, a recovery in households' purchasing power and the strength of the labour market. In the third quarter of 2024, euro area GDP increased by 0.4% quarter on quarter, largely reflecting slight growth in activity in Germany and higher growth in the French economy associated with the impact of the Olympic Games. In the first three quarters of 2024, Germany and Italy performed well below the euro area average economy, in contrast to the dynamics of the Spanish economy. Projections for euro area activity have been revised slightly downwards compared to October, pointing to growth of 0.7% in 2024, 1.1% in 2025, 1.4% in 2026 and 1.3% in 2027.

Global trade will accelerate in 2024 and is expected to keep growing in tandem with that in global activity in the following years. International trade flows recovered more than expected in the first half of the year, partly reflecting the stimulus from the frontloading of goods imports in the second quarter. The quantitative indicators available for the third quarter – on container or air cargo and the number of airline passengers – indicate that these flows continued to grow, although PMIs for new export orders suggest some easing (Chart B.1.1). External demand for Portuguese goods and services will recover in 2024 (1.4% change, after -0.4% in 2023) and accelerate to 2.9% in 2025, due to the strong recovery in intra-EU trade. In 2026-27, external demand growth will stabilise at around 3.2%, in line with that in global trade. The materialisation of protectionist policies pre-announced by the newly elected

US President poses an adverse risk for euro area exports. The US market accounts for 17% of extra-euro area exports, 10% of exports from Germany, France and Italy, 6% of exports from Spain and Portugal and over 20% of exports from Ireland.

Euro area inflation will decline further in 2025, stabilising at around 2.0% by 2027 (Table B1.1). Oil prices are expected to decline over the projection horizon, particularly in 2025, amid slowing demand in China. Non-energy commodity prices will also slow down. Import prices will accelerate in 2024 but will maintain contained rates of change of around 2% over the projection horizon. Developments in Chinese import prices have contributed to limiting price pressures in the euro area, especially for non-energy goods. Inflation in the euro area is projected to decline from 2.4% in 2024 to 2.1% in 2025, stabilising at around 2.0% thereafter. Inflation excluding food and energy shows a similar profile, standing at 2.9% in 2024, 2.3% in 2025 and 1.9% in 2026 and 2027.

Short-term interest rates are expected to continue to decline faster and by a greater magnitude than assumed in the October Bulletin (Table B1.1). Three-month EURIBOR futures point to a 1.4 p.p. decrease in 2025 to 2.1%, with a relative stabilisation in the following years. Over the projection horizon, the interest rate implied in Portuguese government debt will gradually increase from 2% in 2023 to 2.6% in 2027. This reflects the replacement of debt issued in the past at lower interest rates than current issuances, as well as rising net borrowing due to the deterioration of the fiscal situation.

Table B1.1 • Eurosystem staff projection assumptions

							Revisions from EB October 2024		
EB December 2024									
		2023	2024	2025	2026	2027	2024	2025	2026
International environment									
World GDP	yoy	3.2	3.1	3.2	3.1	3.0	0.0	0.1	0.0
Euro area GDP	yoy	0.5	0.7	1.1	1.4	1.3	-0.1	-0.2	-0.1
World trade	yoy	0.5	3.0	3.3	3.3	3.2	0.7	0.0	0.0
External demand	yoy	-0.4	1.4	2.9	3.3	3.1	0.3	0.1	0.0
International prices									
Oil prices	aav	77.5	75.5	67.6	66.0	65.2	-1.0	-1.9	-0.9
Gas prices (MWh)	aav	40.6	34.3	42.9	34.9	29.3	0.1	1.8	-0.4
Non-oil commodity prices	yoy	-14.5	8.7	7.8	-0.4	-1.7	1.9	7.3	-2.9
Competitors' import prices	yoy	-1.3	0.3	2.2	2.3	2.1	-0.2	0.2	0.1
Monetary and financial conditions									
Short-term interest rate (3-month EURIBOR)	%	3.4	3.6	2.1	2.0	2.2	0.0	-0.4	-0.2
Implicit interest rate in public debt	%	2.0	2.2	2.4	2.5	2.6	0.0	0.1	0.1
Effective exchange rate index	yoy	4.9	1.9	-0.6	0.0	0.0	-0.2	-1.1	0.0
Euro-US dollar exchange rate	aav	1.08	1.08	1.06	1.06	1.06	-0.3	-3.0	-3.0

Sources: Banco de Portugal and ECB (Banco de Portugal calculations). | Notes: yoy – year-on-year rate of change, % – in percentage, aav – annual average value, MWh – megawatt-hour. Technical and external environment assumptions, as well as projections for euro area GDP and inflation, coincide with the “Eurosystem staff macroeconomic projections for the euro area”, released on 12 December 2024, including information available up to 25 November. International prices are in euros. The technical assumptions for the price of oil, gas and non-energy commodities is based on futures markets. The import price of competitors corresponds to a weighted average of the export deflators of the countries from which Portugal imports, weighted by their share on total Portuguese imports (for more information, see “Trade consistency in the context of the Eurosystem projection exercises: an overview”, *ECB Occasional Paper* No 108, March 2010). Developments in the three-month Euribor rate are based on expectations implied in futures contracts. The implicit interest rate on public debt is computed as the ratio of interest expenditure for the year to the simple average of the stock of debt at the end of the same year and at the end of the preceding year. An increase in the exchange rate corresponds to an appreciation. The effective exchange rate of the euro is computed against 41 trading partner countries. The revision of the EUR/USD exchange rate is shown as a percentage. 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.

Box 2 • The reference trajectory in the new European fiscal rules

Under the new European fiscal rules,¹ approved in April, the European Commission introduced specific guidance for Member States to draw up medium-term fiscal-structural plans. The guidance includes the definition of reference trajectories for net expenditure. This concept refers to primary government expenditure adjusted to exclude the impact of discretionary revenue measures, the cyclical component of unemployment benefits, temporary measures, revenue from EU funds matched by expenditure, as well as the minimum national co-financing of projects funded by the EU.²

Reference trajectories apply to countries with a public debt greater than 60% of GDP or a general government deficit higher than 3% of GDP. They cover the medium-term plans' period, ranging from four to seven years. For the other Member States, the European Commission provides technical information upon request on the structural primary balance needed to ensure compliance with the ceilings set in the rules.

The starting point for the reference trajectory is potential GDP growth in nominal terms, which can become more demanding if a Member State has to comply with certain requirements. The situations that may lead to this adjustment include the following (Figure B2.1):

- The country has an excessive deficit and must achieve a structural balance adjustment of 0.5 p.p. of GDP per year. As a transitory measure, interest expenditure is not considered until 2027 (i.e. the adjustment may occur in the structural primary balance, if more favourable).
- The country does not have an excessive deficit, but net expenditure dynamics will be more demanding to comply with the two safeguard clauses:
 - Deficit resilience: requires the Member State to achieve an adjustment of 0.4 p.p. of GDP per year (0.25 p.p. for a seven-year medium-term plan) in the structural primary balance until it reaches a structural balance of -1.5% of GDP;
 - Debt sustainability: requires the debt ratio to decline on average by 1 p.p. of GDP per year when the ratio exceeds 90% and 0.5 p.p. of GDP per year when it stands between 60% and 90%.
- The country does not meet debt sustainability requirements, assessed over a ten-year horizon beyond the end of the medium-term plan. In this case, different adjustments to the structural primary balance as a percentage of GDP are tested for a reference trajectory that ensures that:
 - The debt ratio is on a downward trajectory under the four deterministic scenarios projected (adjustment, financial stress, lower structural primary balance, and more adverse differential between the average interest rate on public debt and economic growth);
 - Debt is very likely to decline, based on a stochastic simulation capturing the impact of macroeconomic uncertainty. This criterion is met when the debt ratio at the 70th percentile of the projected distribution decreases over the simulated ten-year period;
 - The deficit is below 3% of GDP in the simulated adjustment scenario.

¹ For more details on the new European rules, see Box 4, "The reform of European fiscal rules", and Box 5, "The expenditure benchmark used in European fiscal rules and the budgetary policy measures for the coming years", in the June 2024 issue of the *Economic Bulletin*.

² Compared to the previous definition, the deduction of expenditure with the minimum national co-financing of projects funded by the EU is novel. This element replaces the adjustment applied to nationally financed public investment, which was smoothed using a four-year average.

If a smaller adjustment than that foreseen by the first two criteria is sufficient to ensure that debt is brought (and/or remains) below 60% of GDP under the four deterministic scenarios while ensuring that the third criterion is met, then that smaller adjustment is chosen.

Figure B2.1 • Criteria for determining the reference value for net expenditure

Nominal potential GDP growth					
Additional criteria aimed at greater stringency in the dynamics of net expenditure					
Excessive deficit and safeguard clauses			Debt sustainability		
In excessive deficit	Not in excessive deficit		DR decreasing in the deterministic scenarios: • Adjustment • Financial stress • Lower SPB • Adverse (r-g)	DR decreasing with sufficient probability (based on stochastic simulation)	Deficit < 3% GDP in the adjustment scenario
	Deficit resilience	Debt sustainability			
Δ SB = 0.5 p.p. GDP per year (or SPB, if more favourable until 2027)	Δ SPB = 0.4 p.p. GDP per year (0.25 p.p. if 7 years plan), until a SB of -1,5% GDP	Δ DR ≤ -1 p.p. GDP per year when DR > 90% and -0,5 p.p. GDP when 60% < DR < 90%.			DR < 60% GDP in T+4 (7)+10 in the four deterministic scenarios (applicable only if more favourable)

Source: Schematics by the Banco de Portugal. | Notes: SB – Structural balance; SPB – Structural primary balance; DR – Debt ratio. Brief description of the deterministic scenarios: Adjustment – By 2028, SPB equal to 2024 minus the required adjustment and, after 2028, change in line with the cost of ageing; Financial stress – Equal to the adjustment scenario but with a temporary shock of 100 basis points to short-term and long-term interest rates in 2029 (shock increased if DR is higher than 90%); Lower SPB – Equal to the adjustment scenario but with a permanent reduction in the SPB of 0.25 p.p. of GDP in 2028 and 0.5 p.p. of GDP after 2029; Adverse (r-g) – Equal to the adjustment scenario but with a permanent shock of 50 basis points to short-term and long-term interest rates and a 0.5% year-on-year reduction in GDP growth from 2029 onwards.

In June, the European Commission communicated to each Member State the reference trajectory for net expenditure to be considered in the elaboration of their medium-term fiscal-structural plans. A process of technical dialogue, which culminated in the submission of the plans by the Member States, took place between July and October. In the Autumn Package, the Commission issued opinions on the plans submitted. The formal approval of these plans should take place in the Ecofin Council meetings scheduled for January and February 2025.

Box 3 • Projections for net government expenditure in Portugal

In June, the European Commission informed Portugal of the reference trajectory for net expenditure, determined in accordance with agreed procedures (Box 2 – The reference trajectory in the new European fiscal rules). This trajectory sets an average annual growth in net expenditure of 3.6% between 2025 and 2028 – as the country opted for a four-year plan – with slightly higher growth in the earlier years (Table B3.1). In the adjustments to nominal potential GDP growth, only the debt sustainability criteria proved relevant. These criteria implied an adjustment of 0.08 p.p. of GDP per year, equivalent to 0.2% in net expenditure growth. None of the safeguard clauses required additional effort in the Portuguese case.

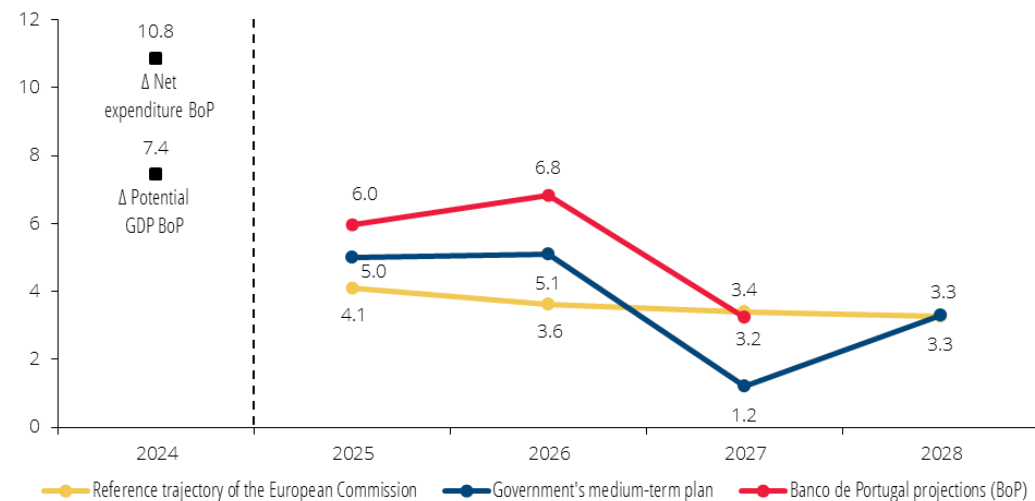
Table B3.1 • Reference trajectory for net expenditure^(a) as communicated by the European Commission for the preparation of Portugal's medium-term plan for 2025-2028

	Unit	2025	2026	2027	2028	Average 2025- 2028 ^(b)
1. Nominal potential GDP growth	%	4.3	3.8	3.6	3.5	3.8
Real potential GDP	%	2.2	1.6	1.4	1.2	
GDP deflator	%	2.1	2.2	2.2	2.3	
2. Adjustment due to:						
Excessive deficit and safeguard clauses	% of GDP	0	0	0	0	
Debt sustainability	% of GDP	0.08	0.08	0.08	0.08	
3. Conversion of the adjustment into net expenditure growth ^(c)	%	0.2	0.2	0.2	0.2	
4. Reference trajectory for net expenditure growth (1. - 3.)	%	4.1	3.6	3.4	3.3	3.6

Sources: European Commission and Banco de Portugal (schematisation). | Notes: a) Defined as primary government expenditure excluding the impact of discretionary revenue measures, the cyclical component of unemployment benefits, temporary measures, revenue from EU funds matched by expenditure, as well as the minimum national contribution to EU-funded projects. b) Simple average, according to the European Commission. c) The conversion of the required adjustment, as a percentage of GDP, into percentage points of net expenditure growth is calculated by dividing the adjustment as a percentage of GDP by the primary expenditure-to-GDP ratio for 2024 and multiplying by 100. The value considered by the European Commission was 41.2% of GDP.

The government's medium-term fiscal-structural plan projects net expenditure growth to be higher than the reference trajectory in 2025 and 2026, followed by a more moderate increase in 2027 (Chart B3.1). Nevertheless, the average for the entire period remains aligned with the 3.6% proposed by the Commission. The discrepancy in the profile is explained in the plan by RRP loans.

According to the Banco de Portugal's projections presented in this Bulletin, net expenditure is projected to grow strongly in 2024, estimated at 10.8%, well above a nominal potential GDP growth of 7.4%. Between 2025 and 2027, average net expenditure growth reaches 5.3%, exceeding the reference trajectory and that projected in the medium-term plan by 1.6 p.p., resulting in average annual deviations of 0.7 p.p. of GDP. After the budgetary execution of each year, deviations from the approved plan will be recorded in the Member State's control account and may not exceed 0.3 p.p. of GDP per year or 0.6 p.p. of GDP cumulatively. Therefore, the Banco de Portugal's projections signal a risk of non-compliance, both in annual and cumulative terms.

Chart B3.1 • Reference trajectory and net expenditure changes in the medium-term plan and Banco de Portugal projections | In percentage

Sources: European Commission, Ministry of Finance and Banco de Portugal.

The change in net expenditure underlying the Banco de Portugal's projections may be broken down into its different components (Table B3.2). For 2025, the change in net expenditure is estimated to reach around €6,669 million, distributed between €5,738 million related to the overall dynamics of the primary expenditure categories – including regular developments and the effects of adopted measures – and €932 million associated with the impact of discretionary revenue-reducing measures.

This change exceeds that implied by the European Commission's reference trajectory (€4,576 million) and the Government's medium-term plan (€5,594 million). Thus, the Banco de Portugal's projections suggest that, in the absence of further measures to contain expenditure or increase revenue, it will be difficult to achieve the net expenditure growth target set out in the medium-term plan, putting compliance with European rules at risk.

Table B3.2 • Breakdown of Banco de Portugal projections for net expenditure change in 2024 and 2025 | In million euros

	2024	2025
Change in expenditure components	9,531	5,738
Compensation of employees	2,586	2,119
of which:		
Revisions of public sector careers	194	473
Pensions and other social payments	5,128	2,339
of which:		
Expansion of the Solidarity Supplement for the Elderly (includes 2025 State Budget)	90	120
Pension supplement of October 2024	400	-400
Additional 1.25% increase in pensions (2025 State Budget)		265
Intermediate consumption	961	868
National investment excluding EU projects co-financing and RRP loans	198	-167
Other current and capital expenditure (excluding RRP loans)	393	-143
RRP loans	265	722
Discretionary revenue change	-1,558	-932
Personal income ^(a)	-2,584	-840
Corporate income tax and other taxes on firms ^(b)	75	-130
VAT ^(c)	481	-110
Tax on oil products	346	315
Other indirect taxes ^(d)	196	-60
Other current revenue ^(e)	-72	-108
1. Change in net expenditure in Banco de Portugal projections	11,089	6,669
2. Change in net expenditure consistent with potential GDP ^(f)	7,602	
Deviation (2. - 1.)	-3,487	
3. Change in net expenditure consistent with the European Commission reference trajectory ^(g)		4,576
Deviation (3. - 1.)		-2,093
4. Change in net expenditure consistent with the government medium-term plan ^(g)		5,594
Deviation (4. - 1.)		-1,075

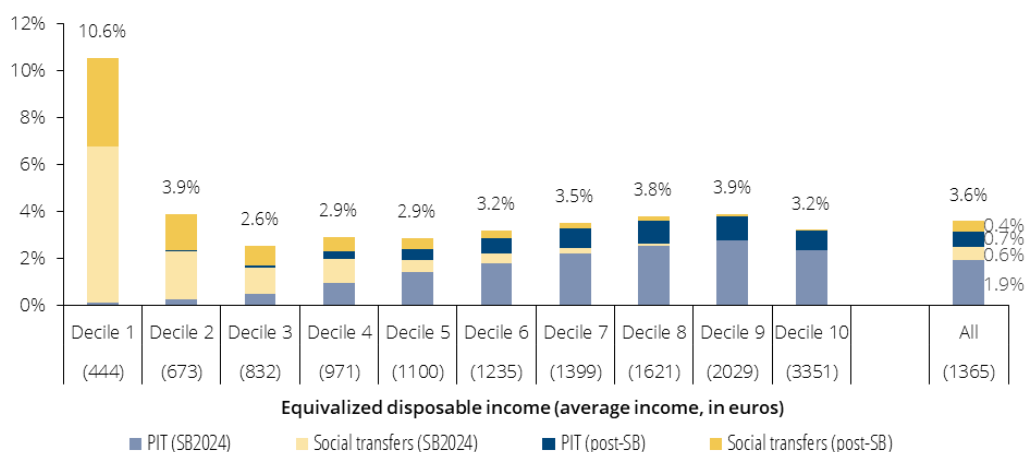
Source: Banco de Portugal. | Notes: a) Measures from the 2024 State Budget and previous ones, reduction of rates in August 2024, increase in Personal Income Tax (PIT) earmarking, youth PIT in the 2025 State Budget, and updates to the specific deduction (2024 and 2025), the minimum income threshold (2025), and tax brackets (2025). b) Tax credits in the 2024 State Budget and previous ones, 1 percentage point reduction in the normal rate in the 2025 State Budget (25% of the effect considered), and the end of the extraordinary contribution on the energy and food sectors. c) End of the zero VAT on essential goods, VAT reduction on restaurant beverages in the 2024 State Budget and on electricity for low power consumption and large families. d) Increase in excise duties in the 2024 State Budget and exemption from stamp duty and property transfer tax for young people. e) Elimination of tolls on some SCUT motorways. f) Banco de Portugal estimate for nominal potential GDP. g) Calculated by applying the net expenditure growth rates from the reference trajectory and medium-term plan to the net expenditure base projected by Banco de Portugal for 2024.

Box 4 • The effect of changes to personal income tax and social benefits on income distribution in 2024 and 2025

In the 2024 State Budget and throughout this year, measures have been approved to boost household disposable income by reducing taxes and enhancing benefits. The microsimulation model EUROMOD allows simulating the direct impact of changes to tax and social benefit rules on disposable income and their distribution by income decile.³

Following the 2024 State Budget,⁴ the following measures impacting 2024 incomes were approved: the reinforcement of and changes to the eligibility criteria for the Solidarity Supplement for the Elderly (CSI) in May; the reduction in personal income tax (PIT) rates and the increase in the specific allowance for income from employment and pensions, backdated to the beginning of the year and reflected in the withholding tables as of September; and the extraordinary pension supplement paid in October. The overall impact of the measures in 2024, including those approved in the 2024 State Budget, amounts to 3.6% of disposable income. The increase in income is especially significant for poorer households, through social benefits (Chart B4.1).

Chart B4.1 • Impact of measures on PIT and social transfers by income decile in 2024 |
In percentage of the equivalized disposable income



Source: Banco de Portugal calculations based on EUROMOD simulations and EU-SILC 2022 data. | Notes: The quantification of the direct effects of the measures on the disposable income distribution is made against a no-policy change baseline scenario, where temporary measures are, by their nature, absent. Households are distributed by deciles according to their equivalized disposable income in the baseline scenario. The calculation of the equivalized disposable income uses the OECD modified scale.

The main tax relief measure of the 2025 State Budget is the reinforcement of the Youth PIT, while certain tax parameters have also been updated, namely a 4.6% increase in the bracket limits.⁵ A further increase in the reference value of the Solidarity Supplement for the Elderly is also expected, in addition

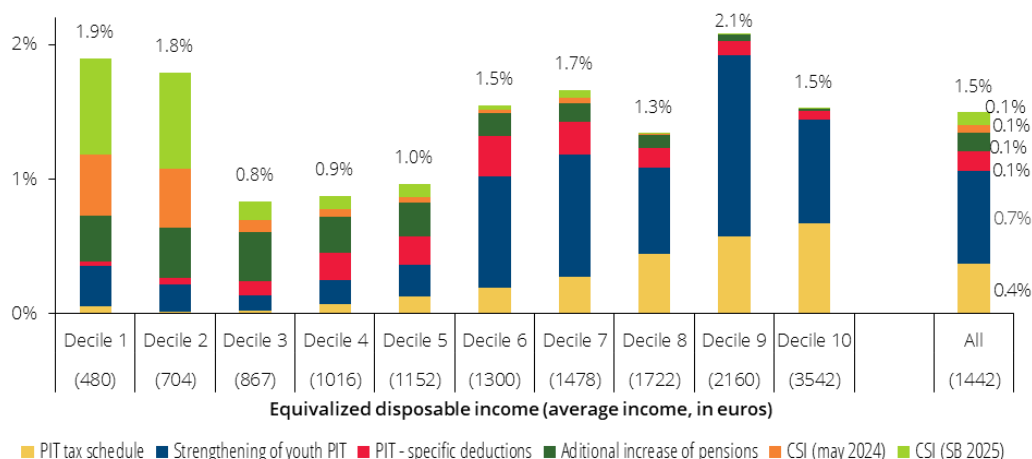
³ For more details on EUROMOD, see Sutherland, H. and Figari, F. (2013), "EUROMOD: the European Union tax benefit microsimulation model", *International Journal of Microsimulation*, International Microsimulation Association, 1(6), 4–26 and visit <https://euromod-web.jrc.ec.europa.eu/>. The 2022 EU-SILC data were used, and the monetary variables of this survey have been updated according to the Banco de Portugal's projections.

⁴ The 2024 State Budget measures included cuts in tax rates, the updating of tax brackets and of the net income guarantee ("mínimo de existência"), an increase in the reference values of the Social Integration Income and the Solidarity Supplement for the Elderly, as well as an increase in the child benefit. For more details, see Box 3 entitled "The impact of changes to personal income tax and social benefits in the 2024 State Budget on the income distribution in Portugal" in the December 2023 issue of the *Economic Bulletin*.

⁵ This increase was established in line with the nominal year-on-year change in GDP per employee in the second quarter of 2024, based on data released by Statistics Portugal on 30 August 2024.

to the base effect of its reinforcement approved in May 2024, and a further 1.25% increase in pensions up to three times the social support index. These measures have a 1.5% impact on the population's disposable income, less than half the impact of those implemented in 2024 with greater relevance at the extremes of the income distribution (Chart B4.2).

Chart B4.2 • Impact of measures on PIT and social transfers by income decile in 2025
| In percentage of the equivalized disposable income



Source: Banco de Portugal calculations based on EUROMOD simulations and EU-SILC 2022 data. | Notes: The quantification of the direct effects of the measures on the disposable income distribution is made against a no-policy change baseline scenario, where temporary measures are, by their nature, absent. Households are distributed by deciles according to their equivalized disposable income in the baseline scenario. The calculation of the equivalized disposable income uses the OECD modified scale.

The changes to the Youth PIT to be introduced in 2025 reinforce the scheme in place in 2024. The simulation of the combined impact of these measures on the tax to be paid by single, childless workers with different wage levels illustrates how the Youth PIT operates. In their first year of employment, these young individuals pay PIT only on wages equivalent to 1.6 times the average wage. At this wage level, the difference from the rate applied to individuals over 35 years old is 20 p.p., gradually phasing out across the distribution (by 18 p.p. for wages equivalent to three times the average wage) (Chart B4 – Panel A). The tax gap narrows as years pass from entering the labour market, especially in the 8th year of employment. For a young person earning the average wage, this benefit is initially €235 per month and decreases to €106 between the 8th and 10th year of employment. For those earning three times the average wage, this benefit starts at €980 and drops to €625 (Chart B4 – Panel B). Note that as the exemption limit does not vary with the number of years in the labour market, but the percentage of exempt income decreases, this limit only applies to successively higher incomes. Especially for young people in their 8th and 10th years of employment, the limit applies to those earning more than five times the average wage.

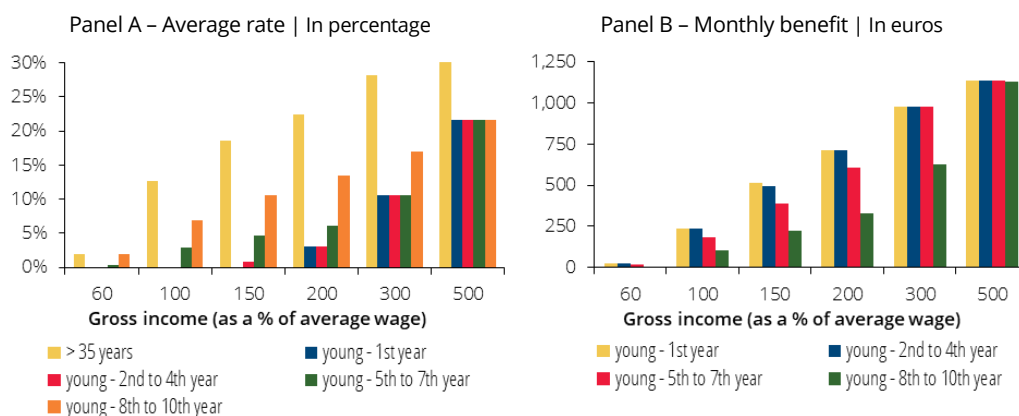
Considering the composition of young households up to the age of 35, the Youth PIT allows these individuals to benefit from an average tax rate of 5.6%, 4.3 p.p. lower than it would be without this mechanism, meaning an increase of around 5.6% in their disposable income (Table B4.1).

While the Youth PIT makes taxation more progressive, this effect is not sufficient to offset the reduction in the average tax rate, thus decreasing the redistributive power of PIT by lowering its revenue.⁶ This loss of redistributive capacity translates into greater inequality in the post-tax income distribution, as

⁶ Note that the redistribution capacity of the tax can be approximated by the product between the progressivity index and the average net PIT rate (total tax over income after tax).

reflected in the increase in the Gini coefficient. The Youth PIT leads to a 0.8% increase in disposable income for the general population, with the greatest impact on the last quintile of the income distribution.

Chart B4.3 • 2025 Youth PIT simulations for a single without children



Source: Banco de Portugal calculations based on EUROMOD simulations and EU-SILC 2022 data using the EUROMOD hypothetical household tool. | Notes: The simulations consider, apart from the specific deduction and the net income guarantee, the tax deduction for general family expenses. The monthly wage was set at 1853€ (equivalent in 14 months to 1588€). The rates for those above 35 years old and those below but already working for between 8 to 10 years with low wages is the same due to the functioning of the net income guarantee.

Table B4.1 • Impacts from youth PIT | In percentage

Panel A – Average rate, inequality indicators and tax progressivity		
	Without youth PIT	With youth PIT
Average tax rate	9.9%	5.6%
<=35 years	13.5%	12.9%
All the population		
Progressivity	0.358	0.367
Gini coefficient		
Pre-PIT	37.49	37.49
Post-PIT	32.01	32.20
Redistributive capacity	5.49	5.29

Panel B – Disposable Income	
	Change
<=35 years	5.6%
All the population	0.8%
Quintile 1	0.3%
Quintile 2	0.2%
Quintile 3	0.6%
Quintile 4	1.0%
Quintile 5	1.2%

Source: Banco de Portugal calculations based on EUROMOD simulations and EU-SILC 2022 data. | Notes: The quantification of the direct effects of the youth PIT considers the rules as included in the SB 2025 and is done vis-à-vis a baseline scenario with no special provisions for young workers, all the rest constant. Households are distributed by deciles according to their equivalized disposable income in the baseline scenario. The calculation of the equivalized disposable income uses the OECD modified scale. The average tax rate is the ratio between simulated values for the tax and gross income including social transfers in cash. The GINI coefficient measures the deviation of the actual income distribution from a perfectly equal distribution, ranging from 0 to 100. The redistributive capacity is measured by the Reynolds-Smolensky index, which is equal to the difference between the Gini before and after PIT. Progressivity is measured by the Kakwani index, which is calculated as the difference between the concentration index of the tax and the Gini coefficient before PIT.

Box 5 • The distribution of household saving in Portugal

Household saving has played a major role in the last two episodes of economic turmoil: the pandemic and the inflationary surge. This box analyses the distribution of savings in Portugal based on microdata from the Household Budget Survey 2022–23 (hereafter referred to as HBS 2022), the results of which were published by Statistics Portugal in June 2024. This survey includes detailed expenditure and income data for 11,700 households.⁷

Savings are calculated as the difference between each household's total income and total consumer expenditure. Income comprises all monetary, labour and property income, pensions and social benefits and is net of taxes and social contributions. Income and expenditure also include non-monetary components, in particular self-consumption (food and other self-produced goods), self-supply (goods and services obtained without payment in households' firms), owner-occupied imputed rents (self-assessment of the hypothetical value of the house rent by owner-occupiers) and wages received in kind.

Note that this type of survey involves significant measurement errors, as shown in numerous studies.⁸ In the case of HBS 2022, the extrapolated values⁹ for expenditure and income are understated when compared to macroeconomic values in the national accounts, with the most significant undervaluation being observed in the case of expenditure. Therefore, savings in euro and the saving rate implied in the HBS 2022 are overstated compared to those in the national accounts.¹⁰ When analysing the distribution of savings, it is implicitly assumed that these errors affect different groups of households relatively uniformly.

The distribution of savings in Portugal, when households are organised by saving decile and by income decile, is quite uneven. Households in the two upper deciles of the saving distribution account for around two-thirds of the savings (Chart B5.1 – Panel A). On the other hand, the first two deciles show negative average savings, corresponding, for instance, to situations where expenditure is financed through credit or from accumulated wealth. The analysis by income deciles documents high inequality in the distribution of savings (Chart B5.1 – Panel B). The 20% of households with higher incomes generate 55% of savings. In turn, in the lowest income decile, expenditure is higher than income.

⁷ The data were collected over an extended period of 26 fortnights, between February 2022 and February 2023. Expenditure information corresponds roughly to 2022, and income data refer to 2021. Income data have been adjusted to 2022 prices, based on developments in the national accounts' private consumption deflator.

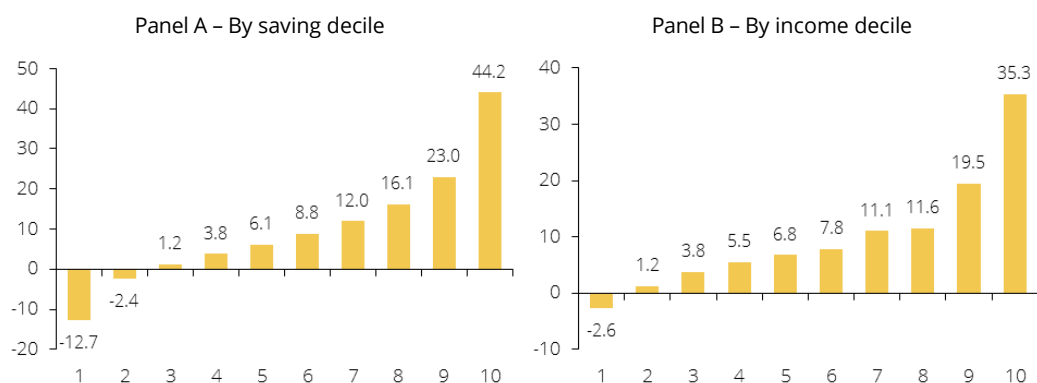
⁸ See, for instance, Alves, N. and Cardoso F. (2010). "Household saving in Portugal: micro and macroeconomic evidence". *Winter Economic Bulletin* of the Banco de Portugal, for Portugal; Törmälehto, V., and Soinne, K. (2024). "Comparative Analysis of Macro and Micro Saving Rates of Finnish Households". *Working Paper 37, Statistics Finland*, for Finland.

⁹ The survey includes household weights that allow the results to be extrapolated to the population as a whole. These weights were used in all the results described in this box.

¹⁰ The extrapolated income level for 2021 is about 20% below disposable income in the national accounts. In the case of expenditure, the undervaluation is more significant, at around 35% compared to the level of household consumption in the national accounts in 2022. In addition to measurement errors, there are conceptual and methodological differences that may explain these discrepancies, such as the treatment of financial services, the estimation of the imputed value of owner-occupied housing rents and the inclusion of estimates of the non-observed economy using a broader range of statistical data in the context of national accounts.

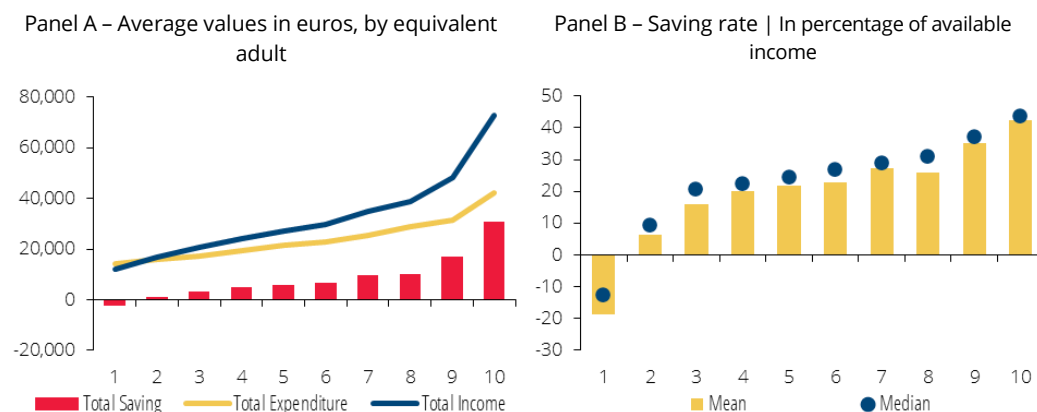
The increase in savings across the income distribution is the result, on the one hand, of the existence of basic spending patterns for life in society and, on the other hand, from the usual smoothing of expenditure in relation to changes in income. The upward profile of expenditure is less pronounced than that of income (Chart B5.2 – Panel A). These differences result in saving rates that increase throughout household income deciles (Chart B5.2 – Panel B).¹¹

Chart B5.1 • Distribution of household saving, by saving deciles and income deciles | In percentage of total saving



Sources: Statistics Portugal (IDEF 2022) (Banco de Portugal calculations). | Notes: The average values per equivalent adult are calculated dividing the household value by the number of equivalent adults, according to the OECD modified equivalence scale. The income deciles are calculated by equivalent adult.

Chart B5.2 • Income, expenditure, saving and saving rate of households, by income deciles



Sources: Statistics Portugal (IDEF 2022) (Banco de Portugal calculations). | Notes: The average values per equivalent adult are calculated dividing the household value by the number of equivalent adults, according to the OECD modified equivalence scale. The income deciles are calculated by equivalent adult.

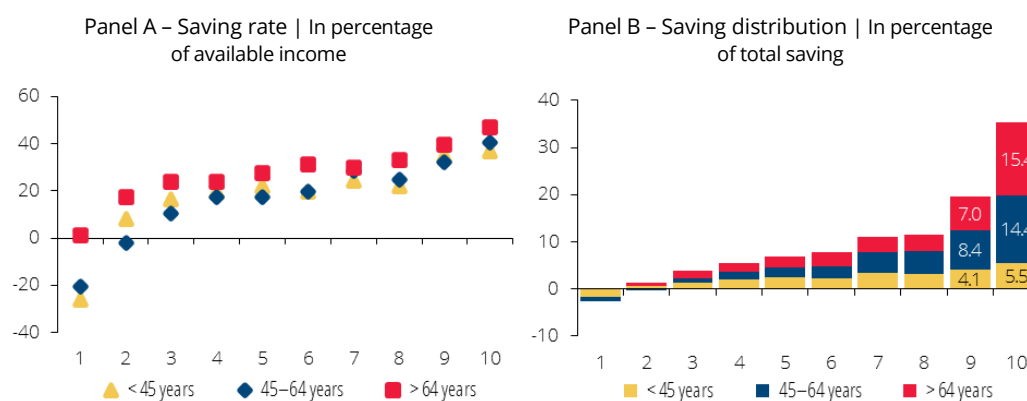
According to the life cycle theory, the saving rate should show an upward profile over individuals' working life, as their income increases and their indebtedness decreases.¹² At retirement age, the

¹¹ These results are in line with the literature, see Späth, J., and Schmid, K. D. (2016). "The distribution of household savings in Germany" *IMK Studies*; Arrigoni, S., Boyd, L., and McIndoe-Calder, T. (2022). "Box D: Savings across the income distribution" *Quarterly Bulletin* of the Central Bank of Ireland; or Mosley, M. (2022). "Box C: Households savings amid the cost-of-living crisis" *National Institute UK Economic Outlook – Summer 2022*.

¹² On life cycle theory and its developments, see Deaton, A. (1992). *Understanding Consumption*. Oxford University Press; and Jappelli, T., and Pistaferri, I. (2017). *The Economics of Consumption: Theory and Evidence*. Oxford University Press.

average household expenditure tends to decrease and developments in the saving rate largely depend on the existing rules of the social security system, the incentive to save for health-related precautionary reasons, and the desire to leave a legacy for future generations. The HBS 2022 does not allow for this quantification, as it is cross-sectional in nature and does not monitor households over time. Nevertheless, it is possible to obtain suggestive evidence on the issue. Considering the distribution by income decile and three age groups corresponding to the age of the household reference person (under 45, 45 to 64 years and over 64), the saving rate increases with income in all age groups (Chart B5.3 – Panel A). Moreover, when comparing saving rates in each income decile, the highest saving rates are found in the oldest age group. The upward profile of the saving rate thus appears to persist at the end of the life cycle of households in Portugal. This profile implies that the contribution to total household saving in the over-64 age group is close to that of households in the 45-64 age group (Chart B5.3 – Panel B).

Chart B5.3 • Saving rate and saving distribution of households, by age group and income deciles



Sources: Statistics Portugal (IDEF 2022) (Banco de Portugal calculations). | Notes: The average values per equivalent adult are calculated dividing the household value by the number of equivalent adults, according to the OECD modified equivalence scale. The income deciles are calculated by equivalent adult.

Box 6 • Recent evolution of wealth for different groups of households

In recent years, households' net wealth – the sum of financial assets and housing wealth, net of loans – has grown, driven by an exceptional increase in savings during the pandemic period, a sharp rise in real estate prices and, since 2021, the nominal effect of the inflationary surge. The impact of these factors on wealth varies by household type, depending on wealth composition and the distribution of savings accumulated during the pandemic.

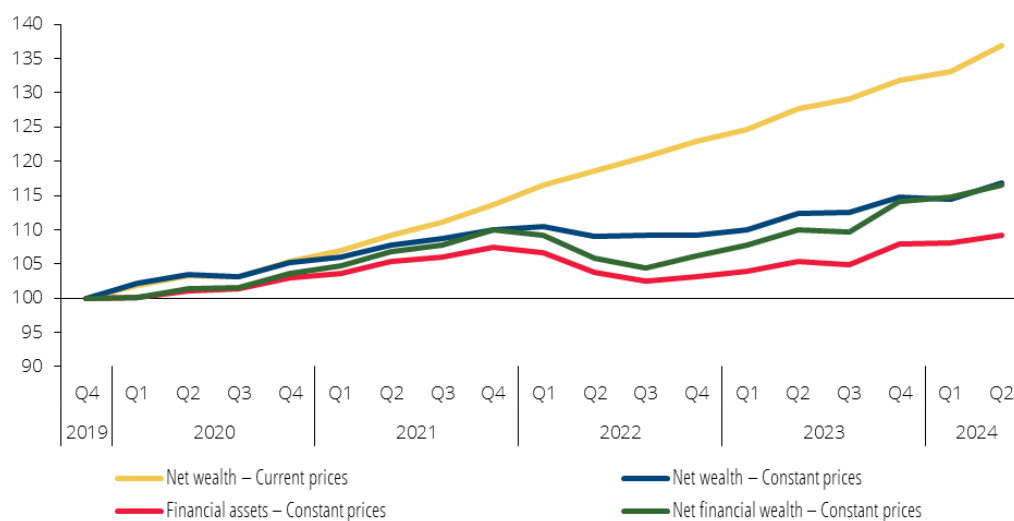
The distribution and evolution of households' net wealth in Portugal between the fourth quarter of 2019 and the second quarter of 2024 can be analysed using the experimental statistics on wealth distribution released by the ECB for euro area countries (Distributional Wealth Accounts, DWA). Households are divided into three groups: the 50% of households with the lowest net wealth; the 40% of households with net wealth between the 50th and 90th percentiles; and the 10% of households with the highest

net wealth (Table B6.1 includes a characterisation of net wealth distribution in the second quarter of 2024). These groups refer to wealth distribution at any given point in time, being that the position of a household can vary over time.

Between the fourth quarter of 2019 and the second quarter of 2024, households' net wealth increased sharply (36.9%). Housing wealth grew by 37.1% and financial assets by 28%, more than offsetting the lower increase of 10.8% in loans (Table B6.2). The increase was particularly pronounced in the bottom 50% group (57.6%, compared with 39.8% in the next 40% of households and 32.4% in the top 10% wealthiest households). Amid a general increase in asset values, households with a higher debt-asset ratio experienced the sharpest percentage changes in net wealth (leverage effect).

Real wealth growth stood at 16.9%. In the inflationary environment, real net wealth halted its upward trend in 2022 and only started increasing again from the beginning of 2023 (Chart B6.1). This behaviour was common to households with net wealth above the 50th percentile (Chart B6.2). Housing made the main contribution to the real increase (11.2 p.p.). The contribution of net financial wealth (financial assets minus loans) was also positive (5.7 p.p.), resulting from an increase in financial assets and a decrease in the real value of loans. The inflationary period led to more favourable developments in the wealth of debtors than that of creditors.

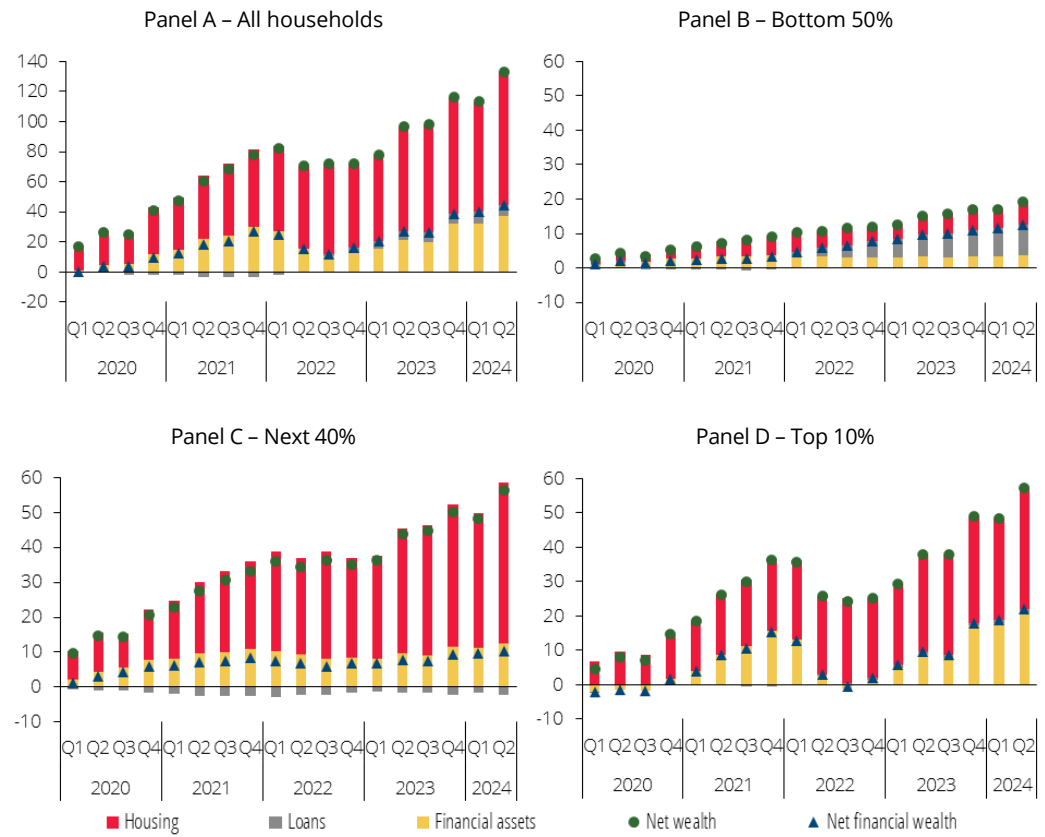
Chart B6.1 • Evolution of household net wealth at current and constant prices | Index 2019 Q4=100



Sources: Banco de Portugal and ECB. | Note: Net wealth at constant prices computed with the private consumption deflator, referring to 2021 prices.

During this period, the three household groups recorded an increase in real wealth: 34.5% in the bottom 50% group, 19.3% in the next 40% group and 13% in the top 10% wealthiest households (Table B6.2). The contribution of housing wealth was positive and significant across all groups. The contribution of net financial wealth was much higher in the bottom 50% wealth group, mainly due to the real decline in debt value. In the top 10% wealth group, which contributes the most to aggregate wealth and savings, real-value net financial wealth lost some of the gains recorded since the end of 2019 during the period of higher inflation but resumed its upward trend from the end of 2022.

Chart B6.2 • Accumulated change in households net wealth at constant prices since 2019 Q4
| Billion euros



Sources: Banco de Portugal and ECB. | Note: Net wealth at constant prices computed with the private consumption deflator, referring to 2021 prices.

Table B6.1 • Household net wealth in 2024 Q2

	Net wealth	Housing	Net financial wealth	Financial assets	Financial assets more exposed to inflation	Of which: Deposits	Financial assets less exposed to inflation	Loans	Total assets
Composition of the net wealth of each group, in percentage									
All households	100	66	34	48	23	21	25	-14	114
Net wealth groups									
Bottom 50%	100	127	-27	39	33	82	5	-66	166
Next 40%	100	83	17	31	23	71	8	-14	114
Top 10%	100	44	56	62	21	31	40	-6	106
Share of each group in the total assets , in percentage									
All households	88	58	30	42	20	19	22	12	100
Net wealth groups									
Bottom 50%	60	76	-16	24	20	19	3	40	100
Next 40%	88	73	15	27	20	19	7	12	100
Top 10%	94	42	52	58	20	18	38	6	100
Distribution by groups, in percentage									
All households	100	100	100	100	100	100	100	100	100
Net wealth groups									
Bottom 50%	8	16	-6	7	12	12	2	39	12
Next 40%	38	48	19	24	38	39	12	38	38
Top 10%	54	37	88	69	50	49	87	24	50

Source: ECB. | Notes: The financial assets more exposed to inflation include deposits and debt securities. The financial assets less exposed to inflation include listed shares, unlisted shares and other equity, investment fund shares/units and life insurance and annuity entitlements.

Table B6.2 • Evolution of household net wealth in the period 2019 Q4-2024 Q2

	Change (%)				Contributions (p.p.)			
	Bottom 50%	Next 40%	Top 10%	All households	Bottom 50%	Next 40%	Top 10%	All households
Net wealth - Current prices	57.6	39.8	32.4	36.9	57.6	39.8	32.4	36.9
Housing	26.2	39.4	39.2	37.1	41.4	32.9	16.6	24.4
Net financial wealth	27.8	41.7	27.3	36.5	16.2	6.9	15.8	12.5
Financial assets	34.4	32.6	25.8	28.0	15.7	10.6	16.7	14.4
Financial assets more exposed to inflation	36.4	30.1	18.1	24.5	14.1	7.4	4.3	6.2
Financial assets less exposed to inflation	23.3	40.4	30.3	31.3	1.6	3.1	12.4	8.2
Loans	-0.4	23.0	13.6	10.8	0.4	-3.7	-1.0	-1.9
Net wealth - Constant prices	34.5	19.3	13.0	16.9	34.5	19.3	13.0	16.9
Housing	7.7	19.0	18.9	17.0	12.2	15.9	8.0	11.2
Net financial wealth	38.4	21.0	8.7	16.6	22.3	3.5	5.0	5.7
Financial assets	14.7	13.2	7.4	9.2	6.7	4.3	4.8	4.7
Financial assets more exposed to inflation	16.4	11.1	0.9	6.3	6.4	2.7	0.2	1.6
Financial assets less exposed to inflation	5.2	19.9	11.2	12.0	0.4	1.5	4.6	3.2
Loans	-15.0	5.0	-3.0	-5.4	15.6	-0.8	0.2	0.9

Sources: Banco de Portugal and ECB. | Notes: The financial assets more exposed to inflation include deposits and debt securities. The financial assets less exposed to inflation include listed shares, unlisted shares and other equity, investment fund shares/units and life insurance and annuity entitlements. Net wealth at constant prices computed with the private consumption deflator, referring to 2021 prices.

Box 7 • An analysis of hiring and separation flows in the Portuguese labour market

The Portuguese labour market has been highly dynamic. Hiring and separation flows at the firm level reflect this dynamism. Hiring flows indicate firms' investment in human capital and their recruitment and selection processes. Separations may be voluntary or take the form of dismissal or retirement, among others. Many of these separations result from employees' decisions, particularly job-to-job changes. These decisions largely determine cyclical fluctuations in employment, with the largest contribution usually coming from changes in hiring.

Social security microdata enable the calculation of recruitment and separation flows for each firm. Hiring (separation) rates in a quarter may be defined as the ratio between the new hires (new separations) recorded in that quarter and average employment in the end-of-quarter months of that quarter and the previous one. The net hiring rate corresponds to the difference between the hiring and separation rates.

Net hiring rates have been high in the last two years: 1.5% in 2022 and 1% in 2023 (Chart B7.1).¹³ These net hiring rates correspond to hiring and separation rates of 13% and 11.5% in 2022, and 12.5% and 11.4% in 2023. In the year ending in the second quarter of 2024, the net hiring rate was 0.7%, reflecting average hiring and separation rates of 12% and 11.3%. This means that approximately one in eight jobs in the quarter resulted from a new employee-employer contractual relationship and that approximately one in nine employees ended the employment relationship with their employer during this period. Note that the slowdown in the net hiring rate is due to the 1 p.p. reduction in the hiring rate, as the separation rate remained nearly unchanged (-0.2 p.p.). Cyclical developments are mainly reflected in the willingness to hire, rather than in adjustments to termination policies for labour relations.

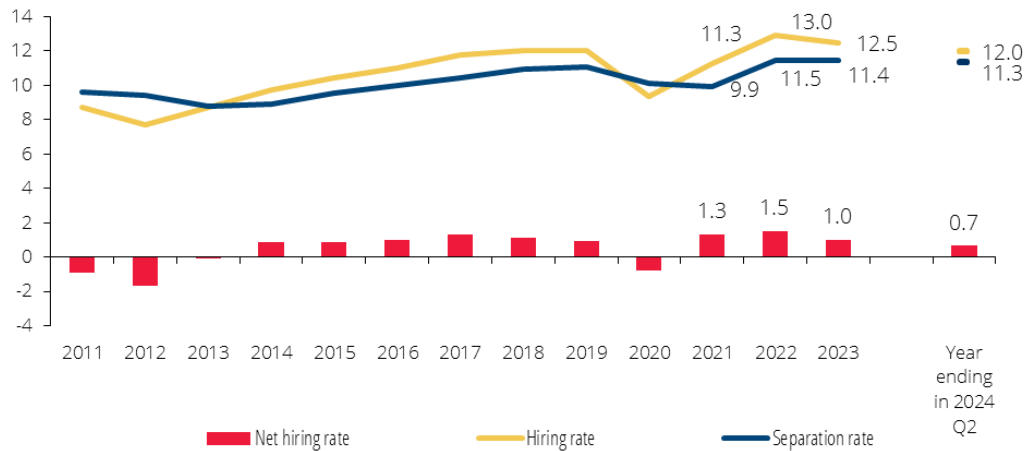
Aggregate net hiring rates hide differences in hiring and separation flows by characteristics of firms and employees.

Table B7.1 shows the hiring, separation, and net hiring rates for the year ending in the second quarter of 2024, by sector of economic activity. Average hiring rates were highest in agriculture and fishing (27.6%), administrative activities (23.6%), accommodation and food services (18%), construction (14.8%), and arts and sports activities (13.3%). Average separation rates were also higher in these sectors. The higher turnover of employees – the sum of hiring and separations – typically associated with these sectors reflects the lower importance of specific human capital and greater seasonality. The real estate sector had the highest net hiring rate (1.6%), followed by accommodation and food services (1.4%), construction (1.4%), scientific and consultancy activities (1.3%), and transportation and storage (1.3%).¹⁴ Contributions to the net hiring rate were highest in accommodation and food services (0.15 p.p.), construction (0.13 p.p.), and wholesale and retail trade (0.12 p.p.).

¹³ The sample is comprised of employees and employer-employee pairs for which there is no base pay record were excluded. The following sections of NACE Rev. 3 are excluded from the analysis: O – Public administration and defence; compulsory social security; P – Education; Q – Human health and social work activities; T – Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use; and U – Activities of extraterritorial organisations and bodies, as total employment in these sectors and their dynamics may be underrepresented in social security microdata.

¹⁴ Labour flow developments are affected by the number of employees registered with Social Security and the regularisation of previously unreported employment relationships. This adjustment may be more significant in some sectors, such as agriculture or administrative and support service activities (e.g. cleaning services).

Chart B7.1 • Hiring, separation, and net hiring rates | Quarterly average rates as a percentage of average employment in the end-of-quarter months



Source: Social Security microdata (Banco de Portugal calculations). | Notes: Calculations at the firm level. The start (end) date of the employment relationship determines the hiring (separation) month. The year ending in 2024Q2 corresponds to the period between the third quarter of 2023 and the second quarter of 2024.

Table B7.1 • Hiring, separation, and net hiring rates in the year ending in 2024 Q2, by sector of economic activity | Quarterly average rates as a percentage of the sector's average employment in the end-of-quarter months; and contributions, in percentage points

	Hiring rate	Separation rate	Net hiring rate	Contributions to the net hiring rate
Agriculture and fishing	27.6	27.1	0.6	0.02
Mining and quarrying	6.3	5.8	0.5	0.00
Manufacturing	5.8	6.2	-0.3	-0.06
Electricity and gas	3.4	3.9	-0.4	0.00
Water	6.1	5.2	0.8	0.01
Construction	14.8	13.4	1.4	0.13
Trade	9.7	9.1	0.6	0.12
Transportation and storage	9.6	8.3	1.3	0.07
Accommodation and food services	18.0	16.6	1.4	0.15
Information and communication activities	7.2	6.4	0.8	0.04
Financial and insurance activities	4.0	3.2	0.8	0.02
Real estate activities	10.9	9.2	1.6	0.02
Consulting and scientific activities	9.0	7.7	1.3	0.08
Administrative activities	23.6	23.2	0.4	0.04
Artistic and sports activities	13.3	12.1	1.2	0.02
Other services	8.0	7.7	0.3	0.01
All sectors	12.0	11.3	0.7	0.7

Source: Social Security microdata (Banco de Portugal calculations). | Notes: Calculations at the firm level. The start (end) date of the employment relationship determines the hiring (separation) month.

The net hiring rate was highest in smaller firms (Table B7.2). These firms were the largest contributors to net employment growth. In contrast, larger firms (with 500 or more employees), which have greater capacity to accommodate job turnover, recorded the highest hiring and separation rates, resulting in lower net hiring rates.

The share of firms with net job creation is positively correlated with firm size. During the period under analysis, this share was 49% for larger firms and 7% for smaller firms.

The increase in net migration flows has contributed to labour market dynamics in Portugal, mitigating hiring difficulties in certain sectors of activity and sustaining the rise in employment. In the sectors

considered in the analysis, in the year ending in the second quarter of 2024, foreign workers accounted for 17.4% of employees, representing an 11 p.p. increase from 2019.

Table B7.2 • Hiring, separation, and net hiring rates in the year ending in 2024Q2, by firm size class | Quarterly average rates as a percentage of the average employment of each size class in the end-of-quarter months; and contributions, in percentage points

	Hiring rate	Separation rate	Net hiring rate	Contributions to the net hiring rate	Percentage of firms with net job creation
[1, 10]	11.5	10.7	0.8	0.19	7.0
[11, 20]	11.8	11.0	0.8	0.08	20.4
[21, 100]	12.3	11.5	0.8	0.19	30.7
[101, 250]	11.4	11.0	0.4	0.05	41.5
[251, 499]	11.5	10.3	1.2	0.09	47.5
500+	12.5	12.3	0.2	0.05	48.5

Source: Social Security microdata (Banco de Portugal calculations). | Notes: Calculations at the firm level. The start (end) date of the employment relationship determines the hiring (separation) month. The size class is based on the firm's average employment in the period under analysis.

Hiring and separation rates for foreign workers increased by 4.5 p.p. and 4.1 p.p. between 2019 and the year ending in the second quarter of 2024, which compares with a decrease of 3.9 p.p. and 3 p.p. for Portuguese workers (Chart B7.2 – Panels A and B). In particular, in the year ending in the second quarter of 2024, the average net hiring rate, as a percentage of the average employment of each group, was higher for foreign workers (1.2% vs. -0.2%), corresponding to higher hiring rates (7.2% vs. 6.7%) and lower separation rates (6.1% vs. 6.9%). These results reflect, among other things, the demographic ageing of the Portuguese population, with a greater transition to retirement and fewer young workers entering the labour market, associated with a continued reduction in fertility rates and longer education periods.

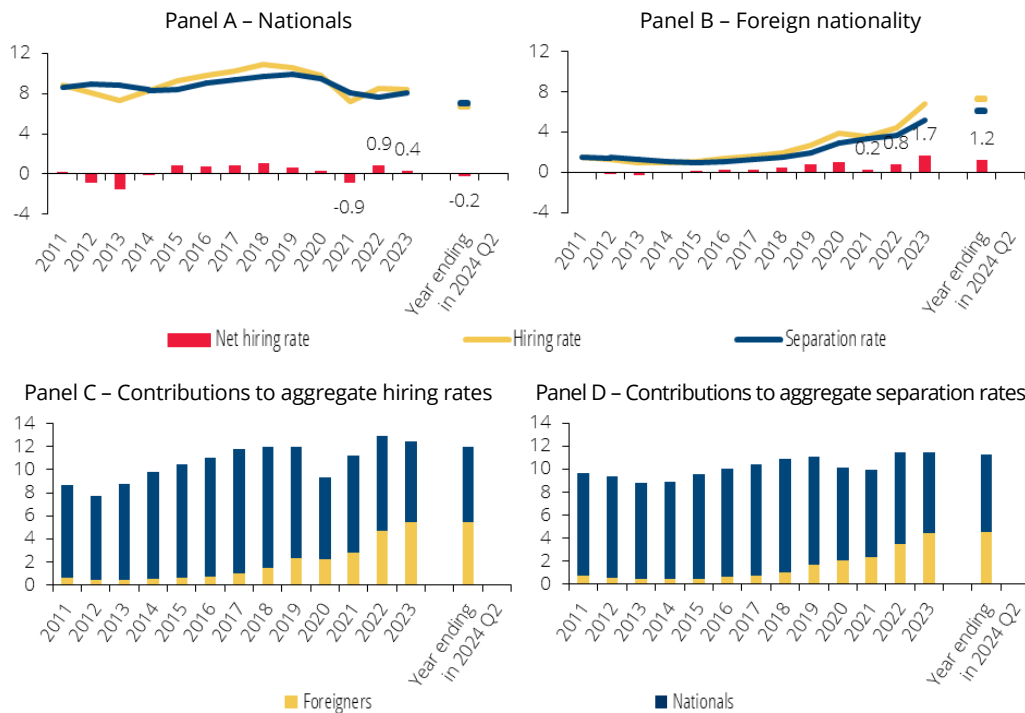
In the year ending in the second quarter of 2024, the contribution of foreign workers to the aggregate net hiring rate was 0.9 p.p., while the contribution of Portuguese workers was negative, -0.2 p.p. (Table B7.3). During this period, the contribution of foreign workers to the economy's total hiring rate was 5.4 p.p., compared with a 6.5 p.p. contribution from Portuguese workers. In contrast, the contribution of foreign workers to the economy's total separation rate was 4.5 p.p., compared with 6.8 p.p. for Portuguese workers (Chart B7.2 – Panels C and D). These developments coincide with an increase in the participation rate of the Portuguese population to historically high values, indicating that hiring foreign workers is not associated with a lower demand for Portuguese workers.

Foreign workers' contributions to hiring rates were higher than those of Portuguese workers in the agriculture and fishing sectors (21.8 p.p. vs. 5.8 p.p.), construction (8.8 p.p. vs. 6.0 p.p.), accommodation and food services (9.4 p.p. vs. 8.6 p.p.), and administrative activities (12.0 p.p. vs. 11.6 p.p.) (Table B7.3).¹⁵ Average separation rates for foreign workers were lower than for Portuguese workers, except in the agriculture and fishing sectors (20.7 p.p. vs. 6.3 p.p.) and construction (7.2 p.p. vs. 6.2 p.p.).

The contributions of foreign workers to net hiring rates were higher than those of Portuguese workers in most sectors, except for financial and insurance activities, professional and scientific activities, and arts and sports activities. These contributions were especially high in accommodation and food services (1.8 p.p.), construction (1.6 p.p.), administrative activities (1.2 p.p.), agriculture and fishing (1.1 p.p.), and transportation and storage (1.1 p.p.). In turn, the contributions from Portuguese workers were negative in half of the sectors under review, especially in manufacturing (-0.8 p.p.), administrative activities (-0.8 p.p.), agriculture and fishing (-0.6 p.p.) and accommodation and food services (-0.4 p.p.).

¹⁵ On average, in the year ending in the second quarter of 2024, new hires of foreign workers were predominantly Brazilian (37.7%), followed by Indian (12.1%), Bangladeshi (6.8%) and Nepalese (5.6%).

Chart B7.2 • Worker flows by nationality | Quarterly average hiring, separation, and net hiring rates as a percentage of each nationality average employment in the end-of-quarter months; and contributions, in percentage points



Source: Social Security microdata (Banco de Portugal calculations). | Notes: Calculations at the firm level. The start (end) date of the employment relationship determines the hiring (separation) month.

Table B7.3 • Worker flows by sector of economic activity of the firm and worker nationality in the year ending in 2024Q2 | Contributions by nationality to the sector's quarterly average rates, in percentage points

	Contributions to the hiring rate		Contributions to the separation rate		Contributions to the net hiring rate	
	Nationals	Foreigners	Nationals	Foreigners	Nationals	Foreigners
Agriculture and fishing	5.8	21.8	6.3	20.7	-0.6	1.1
Mining and quarrying	4.1	2.2	4.3	1.5	-0.2	0.7
Manufacturing	3.9	2.0	4.7	1.5	-0.8	0.5
Electricity and gas	2.9	0.5	3.6	0.3	-0.7	0.2
Water	4.5	1.6	4.2	1.1	0.3	0.5
Construction	6.0	8.8	6.2	7.2	-0.3	1.6
Trade	6.9	2.8	6.9	2.2	0.0	0.7
Transportation and storage	5.4	4.2	5.2	3.1	0.1	1.1
Accommodation and food services	8.6	9.4	9.0	7.6	-0.4	1.8
Information and communication activities	5.2	2.0	4.8	1.6	0.3	0.5
Financial and insurance activities	3.5	0.5	2.9	0.3	0.6	0.2
Real estate activities	7.2	3.6	6.6	2.6	0.6	1.0
Consulting and scientific activities	6.7	2.3	5.9	1.8	0.8	0.6
Administrative activities	11.6	12.0	12.3	10.8	-0.8	1.2
Artistic and sports activities	9.9	3.3	9.2	2.9	0.7	0.5
Other services	5.4	2.7	5.6	2.1	-0.2	0.6
All sectors	6.5	5.4	6.8	4.5	-0.2	0.9

Source: Social Security microdata (Banco de Portugal calculations). | Notes: Calculations at the firm level. The start (end) date of the employment relationship determines the hiring (separation) month.

II Special issue

Portuguese international trade and the fragmentation
of the global economy

Portuguese international trade and the fragmentation of the global economy¹

The outbreak of armed conflicts, such as Russia's invasion of Ukraine and the confrontation in the Middle East, has heightened international tensions. Disruptions in trade flows caused by the pandemic and armed conflicts have raised concerns about the resilience of global supply chains and intensified the debate on economic security. In response, several countries have adopted protectionist policies aimed at replacing imports with domestic production or favouring trade with allied or like-minded countries (friendshoring). Many firms have also expressed an interest in reducing their dependence on suppliers located in countries with significant geopolitical differences, motivated by fears of losing access to critical inputs for their activities. Geopolitical issues have thus become increasingly intertwined with international trade, raising concerns about the fragmentation of the global economy.

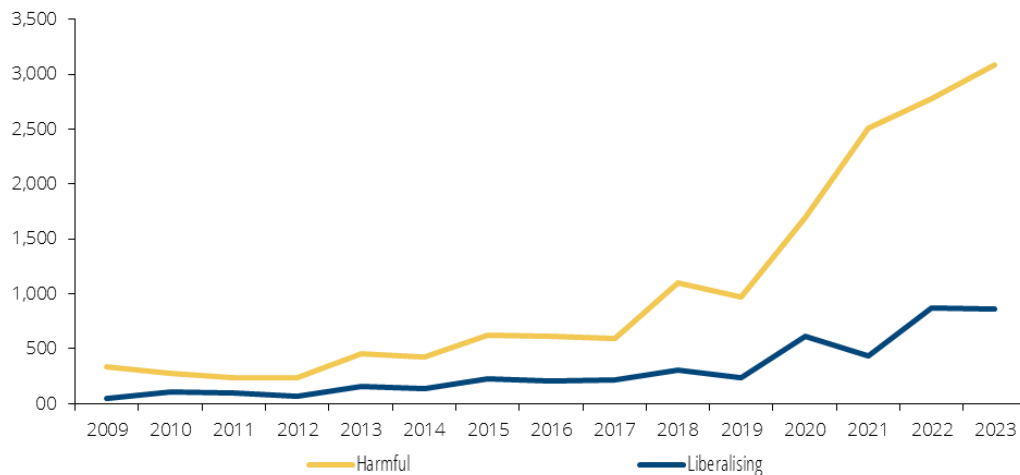
It is therefore important to study the link between the fragmentation of the global economy in recent years and developments in Portuguese external trade. The results show stability of tariff barriers to Portuguese trade up to 2022. However, there is evidence that non-tariff barriers, which are more difficult to quantify, increased until 2023. In the context of European Union (EU) membership and the stabilisation of tariff barriers, Portuguese trade in goods and services has shown no signs of slowing down in recent years, with an ongoing increase in the degree of openness of the economy. However, geopolitical distance has played an increasing role as a determinant of Portuguese imports of goods.

Rising global protectionism and changes in barriers to Portuguese trade

In recent years, protectionist pressures have been rising worldwide, with an increase in the number of new interventions that directly or indirectly restrict trade flows (Chart 1). Two clear examples of increased protectionism are the increase in tariffs between China and the US as of 2018 and the United Kingdom's (UK) withdrawal from the EU in 2020 following the 2016 referendum.

¹ Prepared by João Amador, Alexandre Carvalho, Ana Correia and Joana Garcia.

Chart 1 • New measures with impact on global trade flows | Number



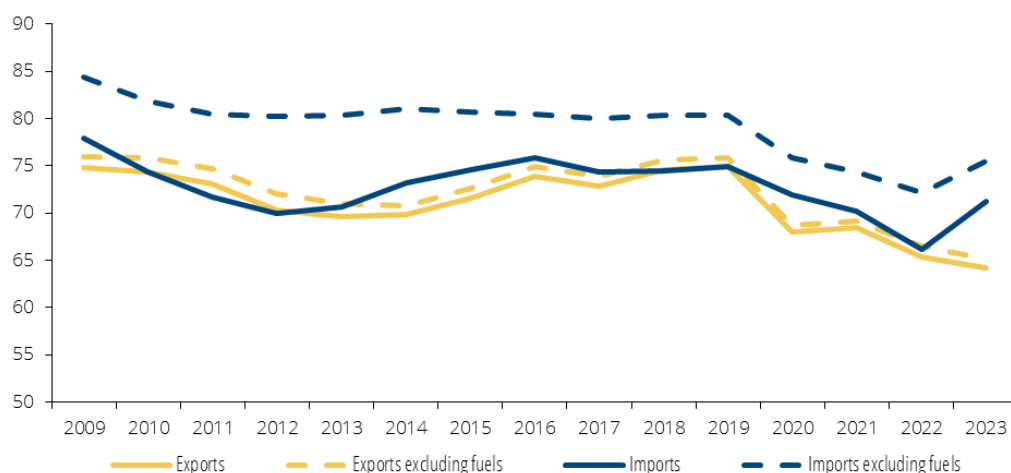
Source: Global Trade Alert. | Notes: The figures are adjusted by Global Trade Alert to ensure that lags in the process of collecting the information used to calculate the indicators do not affect the comparability of the series over time. Harmful measures correspond to measures that discriminate or potentially discriminate against foreign commercial interests, as classified by Global Trade Alert. Liberalising measures correspond to interventions that liberalise in a non-discriminatory way or improve the transparency of a policy.

Governments' support to domestic firms also increased, especially after the pandemic, justified by the need to protect domestic employment and ensure security in access to critical raw materials. At the same time, countries enhanced cooperation with other countries sharing similar values. An example of a policy to support domestic firms is the Inflation Reduction Act passed in the United States in 2022. Subsidies to firms under this programme are conditional on products being manufactured in the United States or using materials produced there or in countries with which the United States has specific trade agreements. Examples of friendshoring policies are the European Chips Act, which has been in place in the EU since September 2023 and promotes cooperation within the semiconductor sector with "like-minded" countries.² Another example is the Mineral Security Partnership, which involves the US, the EU and countries such as Canada and Australia, with the aim of ensuring a regular supply of critical minerals.

In Portugal, most external trade flows are with EU partners, where the single market ensures the free movement of goods, services, capital and people across member countries (Chart 2). In both exports and imports, the share of intra-EU trade in nominal terms is above 60%, even after the UK left the EU in 2020. EU membership is thus a strong safeguard for Portugal against the fragmentation of the global economy.

² See Chips Act: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-chips-act_en

Chart 2 • Weight of Intra-EU trade on Portuguese total trade | Percentage



Sources: Banco de Portugal and Statistics Portugal (Banco de Portugal calculations). | Notes: Nominal figures for exports and imports of goods and services, based on international trade and balance of payments data. Intra-EU trade corresponds to Portugal's trade with the other European Union countries in the respective year (variable composition).

Portuguese extra-EU trade in goods is subject to the EU's common external tariff and to tariffs imposed by third countries on products from EU countries. To measure the evolution of tariff barriers in extra-EU trade in goods, the value of effective tariffs implicit in Portuguese imports and exports is considered. The effective tariff corresponds to the tariff actually applied to transactions at country-product level, considering the existence of trade agreements. These values are then aggregated by product, country, or for overall Portuguese exports/imports, based on the weights of each product-country in trade flows.

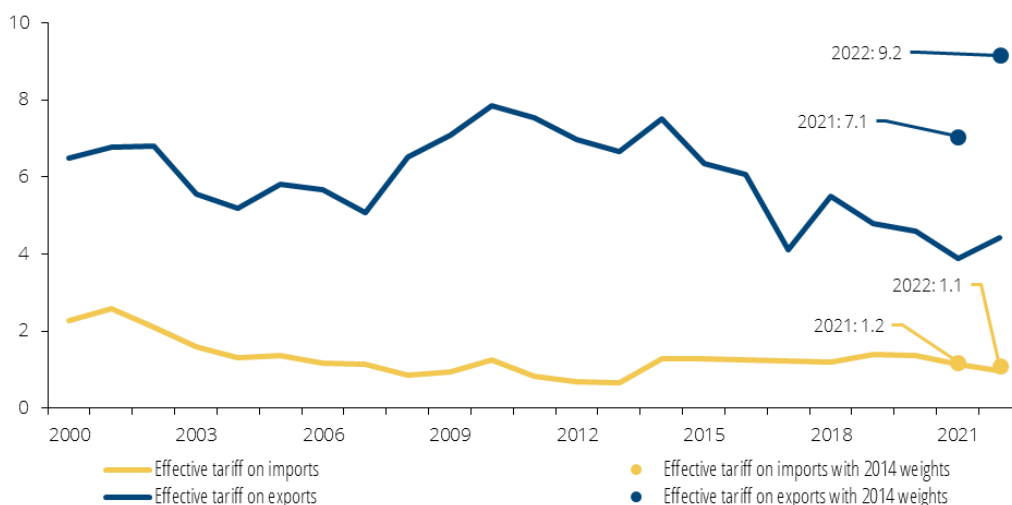
For information on actual tariffs, the TRAINS database was used. For aggregations, information on annual trade flows in goods between Portugal and non-EU countries, available in the UNCOMTRADE database, was used. The data were extracted using the World Integrated Trade Solution (WITS) tool of the World Bank. The analysis runs until 2022, the latest year available in TRAINS, and a product is defined as a 6-digit Harmonised Commodity Description and Coding System code (over 4,500 products).

The average effective tariff applied to Portuguese imports of goods remained stable until 2022, at around 1% (Chart 3). In the early 2000s, the average effective tariff decreased, corresponding to a period of accelerating globalisation, following China's accession to the World Trade Organisation and new trade agreements concluded by the EU.

The average effective tariff applied to Portuguese exports of goods has been declining since 2014, standing at around 4% in 2022. While reflecting different trade baskets, the average effective tariff on imports is lower than that applied on Portuguese exports. This means that Portuguese extra-EU exports are more penalised than Portuguese imports from non-EU countries, limiting domestic firms' ability to penetrate these markets. This outcome had already been identified in the October 2017 *Economic Bulletin's* Special issue and remained unchanged until 2022.

Developments in the average effective tariff reflect not only changes in the tariff rates imposed on each country-product pair, but also in the composition of trade baskets. Should tariffs for a given country-product increase, while the value of trade in that country-product decreases, being replaced by trade in another country product with a lower tariff, the average effective tariff on overall trade may decrease rather than increase due to a composition effect.

Chart 3 • Average effective tariffs on Extra-EU Portuguese imports and exports of goods | Percentage



Sources: UNCOMTRADE and TRAINS (data downloaded from WITS; Banco de Portugal calculations). | Note: To calculate the effective tariffs with variable weights, information was used on the average tariffs applied to Portuguese extra-EU exports/imports at the 2-digit product level (96 categories).

To assess whether the composition effect has had a relevant role in developments in the average effective tariff on Portuguese imports and exports of goods over recent years, the indicator was recalculated in 2021 and 2022, setting trade at the level seen in 2014. With this calculation, the value of the average effective tariff on Portuguese imports in 2021 and 2022 is similar to that obtained with variable weights. By contrast, the average effective rate applied to Portuguese exports with constant weights is higher in these two years. The decline in the series with variable weights is the result of a readjustment of Portuguese exports between 2014 and 2021–22 to countries-products subject to lower tariffs on international markets.

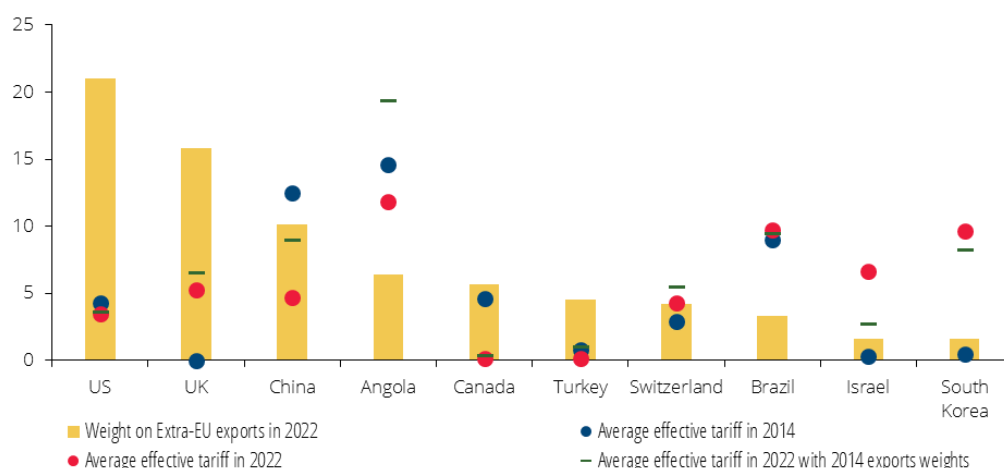
The average effective tariff on exports of goods to the main non-EU trading partners remained stable 2014 and 2022 in the US, Brazil and Switzerland, increased in Israel, South Korea and the UK, and decreased in China and Canada (Chart 4). In the case of Angola, although the average effective tariff with variable weights fell between 2014 and 2022, the effective tariff with constant weights has increased. This partly reflects the increase in tariffs applied to alcoholic beverages, whose weight in Portuguese exports to Angola fell by 5 percentage points over the same period.

We may associate some of these shifts with specific developments in EU trade policy or with particular developments in the Portuguese economy. The decrease in Canada (with both variable and constant weights) may be associated with the trade agreement signed by Canada and the EU (EU-Canada Comprehensive Economic and Trade Agreement – CETA), which entered into force provisionally in September 2017.³ In the case of China, the effective tariff decreased from 12.5% in 2014 to 4.7% in 2022. However, this decrease was much smaller with constant weights (to 9%), suggesting a shift in the export pattern towards products with lower tariffs. Looking in detail at the products exported to China, it is clear that the main product in 2014 was a vehicle category with a 25% tariff. In 2022, the main exported product was car body parts and accessories, subject to a 6% tariff (there were no exports in the most exported car category in 2014). As regards partners with a higher effective tariff, the case of the UK is particularly noteworthy for its weight on Portuguese extra-EU exports. After

³ For further information, please visit: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/canada/eu-canada-agreement/agreement-explained_en.

Brexit, the UK has ceased to be part of the single market and has become subject to the Trade and Cooperation Agreement with the EU. This agreement provides for tariff exemption, but only when the rules of origin are complied with, i.e. when the product is classified as originating in the EU or the UK.⁴

Chart 4 • Average effective tariff on Portuguese exports of goods, by partner | Percentage



Sources: UNCOMTRADE and TRAINS (data downloaded from WITS; Banco de Portugal calculations). | Note: The graph shows the top ten destinations for Portuguese extra-EU exports of goods in 2022.

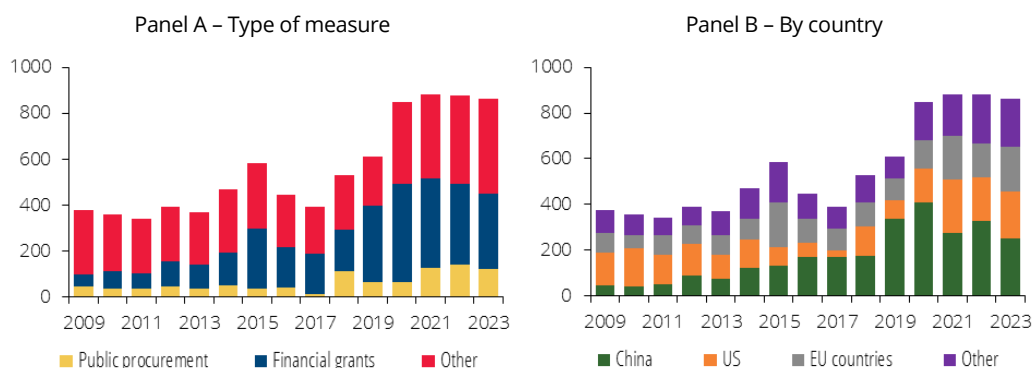
In addition to tariff barriers, which due to their nature apply only to goods, Portuguese trade is also affected by other types of barriers in its extra and intra-EU components. Non-tariff barriers are difficult to quantify and, therefore, the impact on prices and quantities traded is difficult to assess. However, there is evidence that these barriers have a significant impact on trade.⁵ To illustrate how they have evolved, information on the new non-tariff measures implemented that negatively affect Portuguese trade, provided by the Global Trade Alert, was used. This information only measures the number of interventions, without considering how long they last and the size of the trade flows affected. Moreover, the number of interventions is not adjusted for possible lags in the data collection process and, as such, their progress over time should be carefully interpreted.

Results show that the number of new non-tariff measures in 2023 is higher than before the pandemic (Chart 5). By type of measure, the main intervention consists of financial grants to domestic firms. These grants indirectly affect Portuguese exports in the various markets where Portuguese firms compete with firms supported by these measures. In terms of countries, the increase in barriers reflects above all the actions of China and the US. In the case of China, subsidies to firms have increased, while barriers imposed by the US mainly reflected public procurement constraints requiring, for example, the use of products manufactured in the US. The number of new measures implemented by EU countries remained stable between 2009 and 2019, but has increased since then, mainly due to subsidies and state aid. The non-tariff measures implemented by Portugal have also increased over the last four years, mainly reflecting EU-wide policy measures concerning financial sanctions and grants.

⁴ For further information, please visit: <https://trade.ec.europa.eu/access-to-markets/en/content/eu-uk-trade-and-cooperation-agreement>.

⁵ See, for instance, Dhingra, Freeman and Huang (2022).

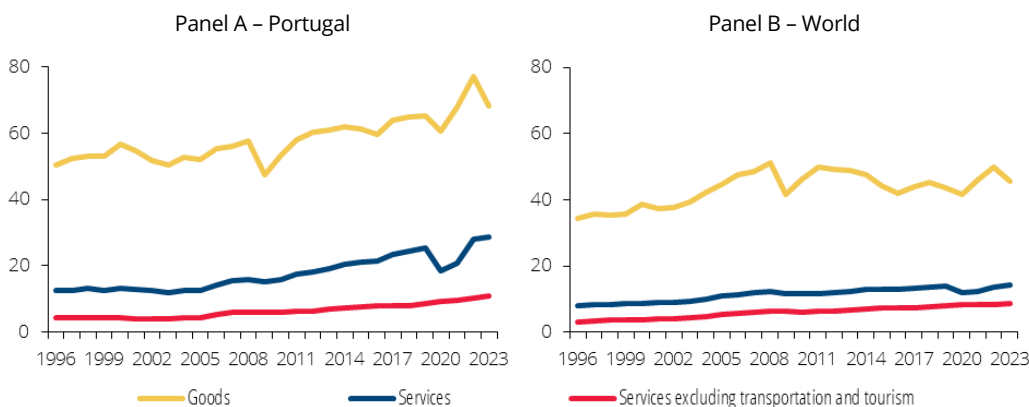
Chart 5 • New non-tariff harmful interventions affecting Portugal | Number



Developments in Portuguese trade: signs of "deglobalisation" or reconfiguration?

In the context of EU membership and a relative stabilisation of effective tariff barriers, Portuguese trade in goods and services has not shown signs of easing, discounting the effects of the COVID-19 pandemic. It continues to increase its share in GDP, in nominal terms. Between 1996 and 2019, the share of trade in goods in GDP increased from 50.3% to 65.2%. By comparison, in the world as a whole, this increase was smaller, from 34.4% to 43.6% (Chart 6). After the shock of the pandemic, Portuguese trade in goods showed a remarkable momentum, amounting to 68.2% of GDP in 2023 (45.5% for global flows). This increase was broadly based across all types of goods, as part of a longer trend and the internationalisation strategy of Portuguese firms.

Chart 6 • Weight of goods and services international trade on GDP | Percentage



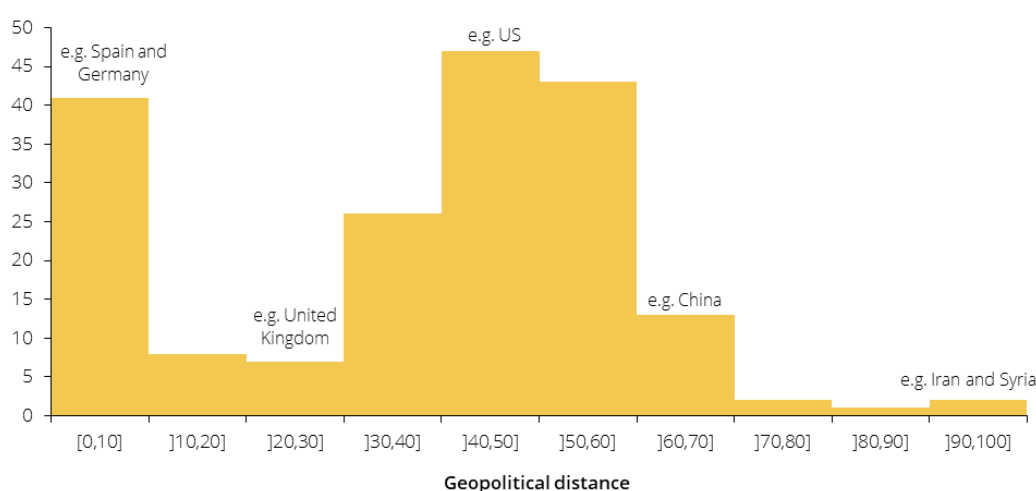
The increase in the degree of openness of the Portuguese economy has also resulted from growth in trade in services since 2006. In the post-pandemic period, these developments are much more marked than those recorded at global level, with a more significant contribution from the export component.

In 2023, exports of tourism and transport services, which accounted for 48.1% and 19.4% of total Portuguese exports of services respectively, were quite relevant for these developments. Between 2019 and 2023, tourism exports grew by 45.4% while exports of transport services increased by 38.4%. Momentum in other services was even more pronounced with their share in GDP rising from 8.7 p.p. to 10.9 p.p. Exports of telecommunications, IT and information services made a significant contribution to this increase, with their value doubling from 2019 to 2023.⁶ This upward trend in the degree of openness of the Portuguese economy is even more pronounced when analysing data in real terms.

Although negative effects of geopolitical tensions on Portuguese trade have not yet been observed, there may be a change in the pattern of trade and in the weight of partners depending on their characteristics. At a global level, there is empirical evidence that fragmentation has not led to “deglobalisation” (Antràs, 2020), but rather to a reconfiguration of trade flows. For instance, Gopinath et al. (2024) show that since the start of the war in Ukraine, trade between blocs of politically distant countries has slowed down more than trade within those blocs. Alfaro and Chor (2023) and Freund et al. (2024) document a decline in US imports from China in recent years, while geopolitically closer countries, such as Vietnam and Mexico, have gained importance in US imports. According to the authors, the emergence of “connector” countries, which have served as intermediaries between blocs, is likely to have contributed to the resilience of global trade in the light of the increasing fragmentation of the global economy.

In this context, it is important to examine whether geopolitical considerations have significantly affected Portuguese imports in recent years. The starting point for this assessment is the analysis of each country's geopolitical distance from Portugal over time, using the measure proposed by Bailey, Strezhnev and Voeten (2017). This measure quantifies the foreign policy misalignment between two countries in each year based on how they vote at the UN General Assembly meetings and has been standardised to assume values between 0 (minimum) and 100 (maximum). The main countries of origin of Portuguese imports between 2002 and 2023, such as Spain and Germany, are very close in terms of geopolitical distance, always placing them in the first distribution decile of the indicator. The US and China are, on average, at the centre of distribution. In the top decile and in more recent years are countries such as Iran and Syria (Chart 7).

Chart 7 • Distribution of geopolitical distance from Portugal in 2023 | Number of countries



Sources: Bailey, Strezhnev and Voeten (2017) (Banco de Portugal calculations).

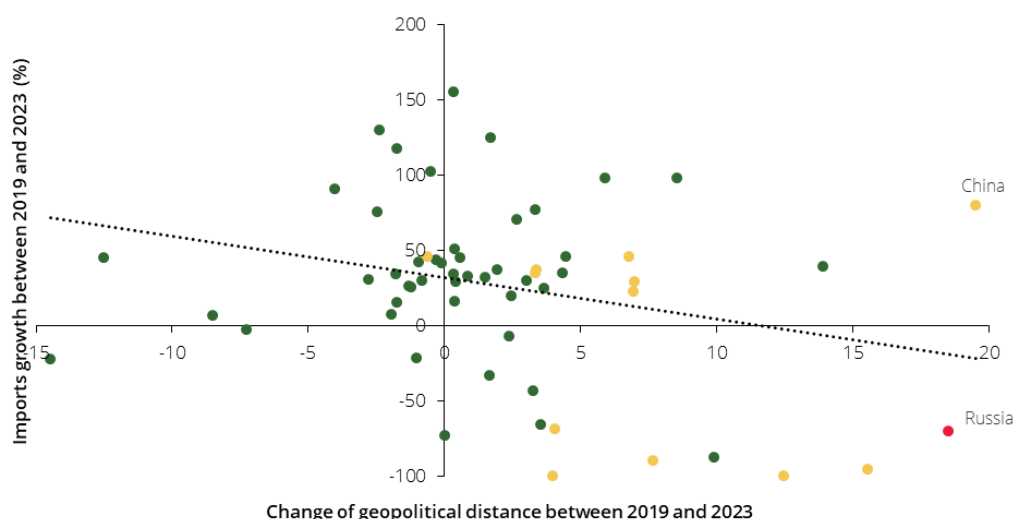
⁶ For an analysis of service exports performance, see subsection “The performance of services exports” within Section 2 “Highlights of the year”, in the *2022 Annual Report*.

There is a negative relationship between the variation in the measure of geopolitical distance from Portugal and the growth in Portuguese imports between 2019 and 2023, i.e. an increase in a country's geopolitical distance from Portugal is associated with lower growth in imports from that country (Chart 8). A prominent example is Russia (marked in red in the chart), which has increased its geopolitical distance by 19 points since 2019, and for which nominal imports fell by 70% over the same period. Russia's share of Portuguese imports of goods and services decreased from 1.2% in 2019 to 0.3% in 2023. These developments largely reflect the import bans on energy goods imposed by the European Union, given the high weight of these goods in Portuguese imports from Russia in 2019 (70%).

Developments in imports from countries that abstained from the UN General Assembly resolution of 2 March 2022, which condemned Russia's invasion of Ukraine (shown in yellow) is heterogeneous. China stands out among these countries, as its geopolitical distance from Portugal has increased by 20 points since 2019. However, nominal imports of goods and services from China grew by 80% between 2019 and 2023. China's share of Portuguese imports increased over this period, from 3.5% in 2019 to 4.7% in 2023.

Descriptive evidence of lower growth in imports from countries that have become more geopolitically distant is supported by analysis based on the estimation of gravity equations, supplemented by the geopolitical distance variable between Portugal and other countries. Equations are estimated for the annual amount (in euro) of Portugal's bilateral imports of goods and services. In a first model, estimated up to 2022, the characteristics of countries and years, as well as developments in import barriers imposed by the EU on its trading partners, were considered. To determine whether the recomposition of trade is related to geopolitical distance rather than a recomposition effect due to increasing trade barriers, the specification includes developments in the average annual tariff applied to imports of goods from each country and binary variables, which control for the existence of trade agreements. However, barriers such as bans on imports of certain products or specific barriers to trade in services have not been included, as they are hard to quantify. In a second model, developments in import barriers imposed by the EU were not considered, allowing the analysis to be extended to 2023.

Chart 8 • Relationship between the growth rate of Portuguese imports and the change in geopolitical distance to different countries between 2019 and 2023

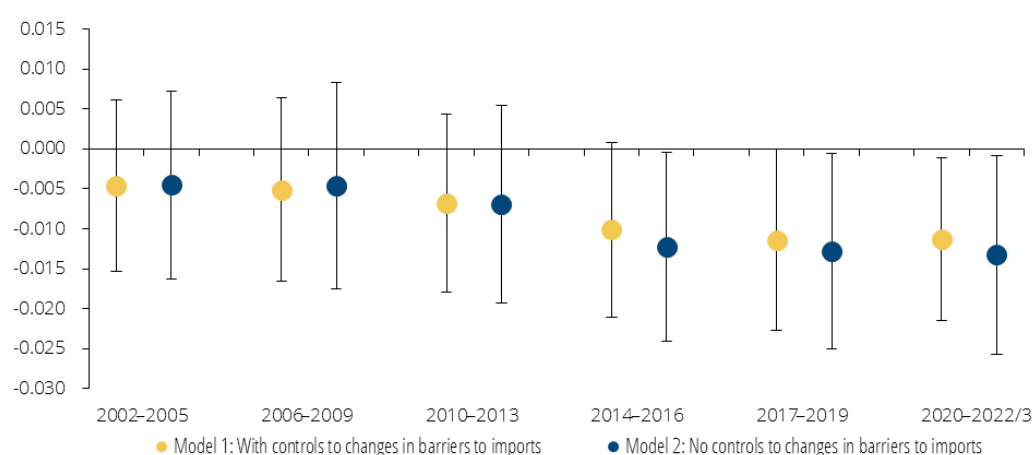


Sources: Statistics Portugal, Banco de Portugal, Bailey, Strezhnev and Voeten (2017) and United Nations Digital Library (Banco de Portugal calculations). | Notes: The colours reflect the countries' position on the UN General Assembly resolution of 2 March 2022 condemning Russia's invasion of Ukraine: green - in favour; yellow - abstention, red - against. The graph includes 60 countries (it excludes countries that accounted for less than 1% of Portuguese imports in 2019). The dashed line represents a linear trend.

The results of the analysis show that in recent years the geopolitical distance has become a significant determinant of Portuguese imports (Chart 9). Considering the model that controls for the variation in barriers to imports from different countries, on average in 2020-22, a unit increase in the geopolitical distance index resulted in a 1% reduction in the annual value of imports. This semi-elasticity is statistically significant at a 5% significance level. In samples prior to 2017, this sensitivity was not statistically significant. Thus, the results suggest that, in recent years, growth in imports from geopolitically more distant countries has been systematically weaker. The results are very similar when using the model that does not control for the evolution of import barriers that allows the analysis to be extended to 2023.

Disaggregated results for imports of goods and services show that the increased sensitivity of imports to the geopolitical distance is concentrated in trade in goods (Chart 10). This result remains unchanged even when energy imports are excluded. The results for imports of services indicate that in recent years they are also sensitive to the geopolitical distance, but such sensitivity already existed in the past.

Chart 9 • Sensitivity of Portuguese imports to geopolitical distance | Semi-elasticity estimate and 95% confidence intervals



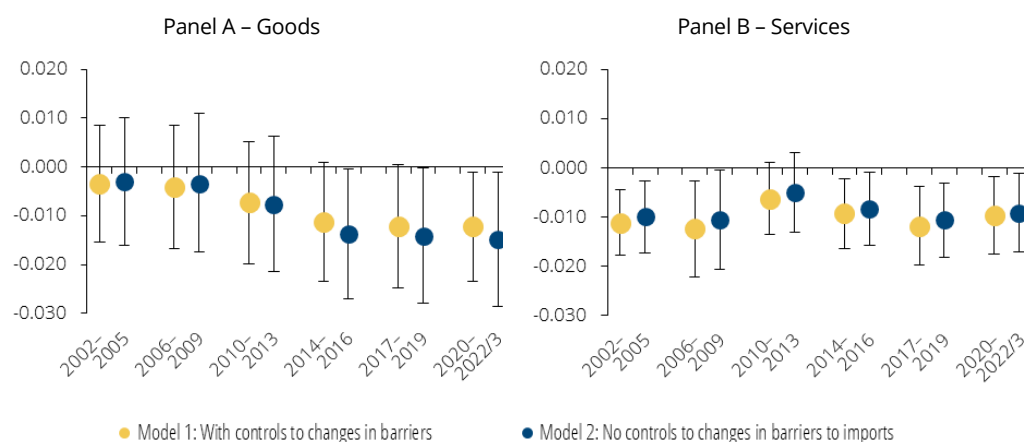
Sources: Statistics Portugal, Banco de Portugal, TRAINS (data downloaded from WITS), Mario Larch's Regional Trade Agreements database (Egger and Larch, 2008) and IMF (Banco de Portugal calculations). | Notes: The estimation used the Poisson pseudo-maximum likelihood estimator (Santos Silva and Tenreiro, 2006). The sample for model 1 includes the years 2002-2022 and the sample for model 2 includes the years 2002-2023. In both models, the regressions include year and country fixed effects, as well as the logarithm of the annual GDP of the country of origin of the imports. In model 1, the regressions also include a measure of the average annual tariff applied to imports (of goods) from that country and binary variables for the existence of trade agreements between the two countries. Standard errors are clustered at the country level.

In short, the results suggest that Portuguese imports have become more sensitive to geopolitical distance, in line with the findings from the literature on global trade in goods.⁷ This sensitivity may intensify as firms overcome the costs of changing business models, value chains and contracts. Qualitative evidence available for euro area countries⁸ suggests that, while many firms have already implemented strategies to reduce their dependence on geopolitically distant countries, others plan to do so only in the future. In a survey carried out by the European Central Bank in 2023 of multinationals with significant activity in the EU, more than 40% indicated their intention to refocus their supply chains towards more politically aligned countries within the next five years. In Germany, a 2023 survey conducted by the Deutsche Bundesbank found that 40% of firms importing critical inputs from China for their business had either already reduced or were in the process of reducing this dependency, while 20% indicated their intention to reduce it by the end of 2024. Replacing suppliers from China with suppliers from the EU was the most widely adopted risk mitigation strategy at that time.

⁷ See, for instance, Bosone and Stamato (2024).

⁸ See European Central Bank (2023) and Balteanu et al. (2024).

Chart 10 • Sensitivity of Portuguese imports to geopolitical distance – goods vs services |
Semi-elasticity estimate and 95% confidence intervals



Sources: Statistics Portugal, Banco de Portugal, TRAINS (data downloaded from WITS), Mario Larch's Regional Trade Agreements database (Egger and Larch, 2008) and IMF (Banco de Portugal calculations). | Notes: The estimation used the Poisson pseudo-maximum likelihood estimator (Santos Silva and Tenreiro, 2006). The sample for model 1 includes the years 2002-2022 and the sample for model 2 includes the years 2002-2023. In both models, the regressions include year and country fixed effects, as well as the logarithm of the annual GDP of the country of origin of the imports. In model 1, the regressions also include a measure of the average annual tariff applied to imports (of goods) from that country and binary variables for the existence of trade agreements between the two countries. Standard errors are clustered at the country level.

Final considerations

One of the strongest results in economic theory is that international trade increases welfare in the countries involved, which is supported by empirical evidence.⁹ While the distribution of trade gains across countries is not equitable, and some groups of workers in each country may experience losses, limiting international trade is not an efficient solution. Increasing barriers to trade leads to losses in well-being and policies prioritising trade with countries having similar values may also contribute to these losses by reducing the gains associated with exploiting comparative advantages.¹⁰ Therefore, the fragmentation of the global economy and the intensification of protectionism must be seen as a concern, particularly for lower-income countries¹¹ and those with a relatively smaller internal market.

The interdependence resulting from the integration of economies over the past decades is now perceived as a risk, leading many countries to intensify competition for access to vital raw materials and to try to replace imports with domestic production or bring them closer in terms of geopolitical distance. While geostrategic concerns should be considered, and there may be a need to diversify firms' risk, this view leads to the adoption of protectionist measures that generate retaliation and become a source of economic conflict across countries. By contrast, historical evidence points to economic integration as a source of stability. The defence of multilateralism, based on international institutions that promote cooperation across countries and safeguard respect for international law in the settlement of disputes, is therefore essential.

The European single market has been the basic pillar of the EU and remains the dominant area for Portuguese external trade. Its proper functioning depends on preserving healthy competition across

⁹ See Special issue "International trade: gains and challenges", October 2017 issue of the *Economic Bulletin*.

¹⁰ See Javorcik et al. (2022).

¹¹ See, for instance, Hakobyan, Meleshchuk and Zymek (2023) and Fernández-Villaverde, Mineyama and Song (2024).

firms and should not be undermined by national policies, in particular in terms of increasing and extending State aid.

The outcome of the recent electoral process in the US could lead to a significant increase in its import tariffs and possible retaliatory measures could exacerbate the reconfiguration of international trade, with an impact on the Portuguese and European economies. In this scenario, to maintain the positive performance of domestic exports in recent years, it is important to strengthen support for firms in their search for new markets, promote foreign direct investment and further ease resource allocation in the economy. To this end, it is important to place emphasis on the importance of human capital as a source of innovation and a facilitator of labour mobility across sectors.

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III Policy insights

Corporate income taxation in Portugal

Corporate income taxation in Portugal¹

The corporate income tax (CIT) is the main tax instrument levied on firms in Portugal, accounting for close to 15% of tax revenue. In economic literature, corporate income taxes are widely studied due to their direct impact on resource allocation, competitiveness among economies and incentives for private investment. Thus, an in-depth understanding of corporate income taxation and its implications is essential for informed decision-making in a business context and for public policy-making, aimed to balancing fiscal discipline, economic efficiency and tax equity.

This Policy insights focuses on the CIT in Portugal, considering its evolution, an international comparison, the analysis of tax benefits and its incidence on firms with different characteristics. In addition, it uses a dynamic general equilibrium model to assess the macroeconomic impact of a decrease in the effective corporate income tax rate.



The share of CIT in the economy and tax revenue in Portugal is similar to the euro area average.

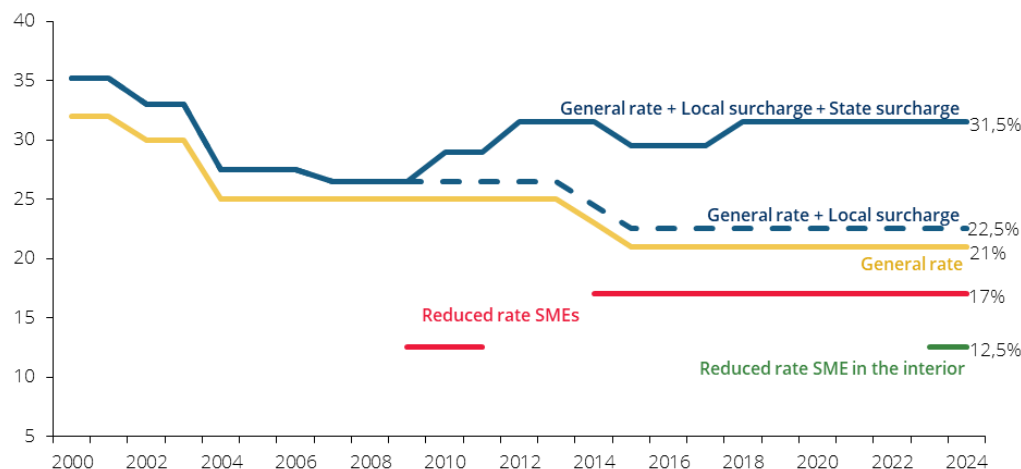
The CIT applies to corporate entities residing or permanently established in Portugal, taxing their overall income. This tax is levied on taxable profit, calculated on the basis of the adjusted accounting result in accordance with the provisions of the CIT Code. The tax base, which represents the value over which the CIT rate is applied, is obtained by deducting losses of previous years from taxable profit, up to a limit of 65%, as well as eligible tax benefits. The CIT liability results from applying the CIT rate to the tax base. Finally, autonomous taxation on pre-defined expenditure is added to the liability and applicable tax incentives and deductions are subtracted.

In 2024 the general CIT rate is 21% and a reduced rate of 17% is applied to the first €50 thousand of taxable profit for micro, small and medium-sized enterprises (Chart 1). For firms operating inland, the reduced rate is 12.5%. A municipal surcharge, of up to 1.5%, is also applied as well as a state surcharge when taxable profit exceeds €1.5 million, ranging from 3% to 9%.

The CIT is the third largest tax in Portugal, accounting for 13.7% of tax revenue, 9.5% of primary current expenditure and 3.4% of GDP in 2023 (Chart 2). Between 2001 and 2023, CIT revenue as a ratio of GDP remained stable, at around 3%. In turn, the shares in tax revenue and primary current expenditure showed greater variability and are now above the average for the period under review. The importance of corporate income taxation in tax revenue and GDP is currently very close to the euro area average and the same applies in terms of the financing capacity of public expenditure.

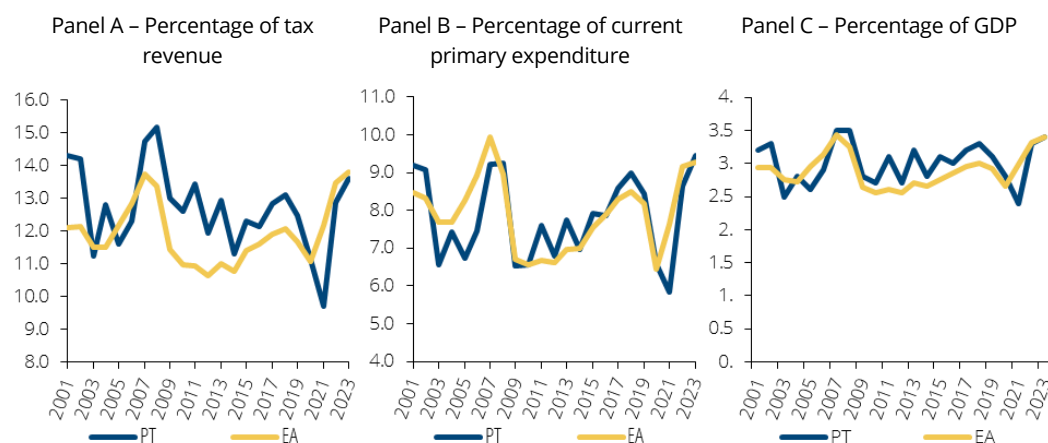
¹ Prepared by Sónia Cabral, Paulo Júlio, José R. Maria and Sharmin Sazedj.

Chart 1 • Evolution of statutory CIT rates in mainland Portugal | Percentage



Source: Banco de Portugal calculations. | Notes: The State surcharge considered corresponds to the maximum surcharge to be applied to the highest incomes. Since 2018, the State surcharge has been 3% for taxable income between 1.5 and 7.5 million euros, 5% between 7.5 and 35 million euros and 9% when above 35 million euros. In 2022, more than 80% of firms with declared CIT benefited from the reduced rate of 17%, while only 1% were subject to the State surcharge.

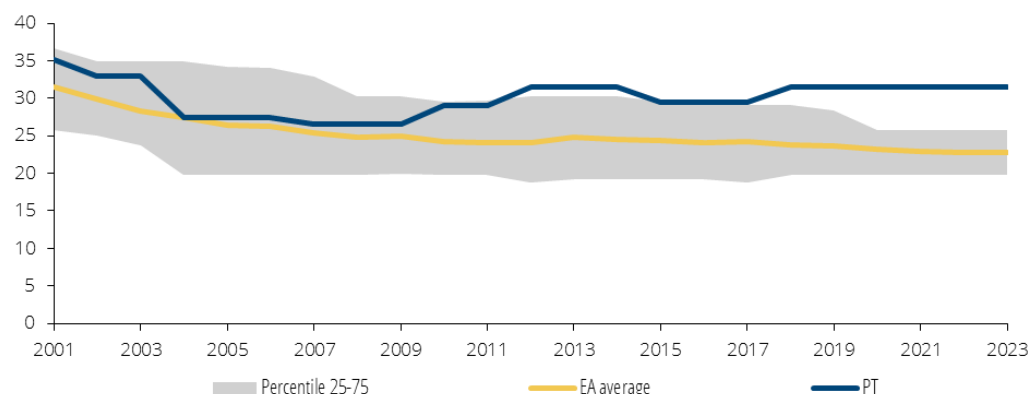
Chart 2 • CIT revenue in Portugal and the euro area



Sources: European Commission (Banco de Portugal calculations). | Notes: The euro area average is a simple average of the countries. Tax revenue does not include revenue from social contributions.

Comparing top statutory rates across countries does not yield particularly meaningful conclusions, as it fails to account for the complexity of tax systems, the progressivity of rates, and applicable tax benefits. In practice, the top statutory rate may differ substantially from the effective rate paid by firms. In Portugal, this statutory rate is among the highest in the euro area (Chart 3). In most euro area countries, top statutory rates have declined over the last two decades, with sharper falls in countries with higher rates. Portugal stands out as a different case in this context, as the reduction in the general rate has been offset by the introduction and subsequent worsening of the state surcharge. Thus, the top statutory rate in Portugal in 2023 is only 3.7 p.p. lower than in 2001, while the average reduction in the euro area was 8.8 p.p. However, note that the state surcharge is limited in scope, applying to a very small number of firms (1% of firms that paid corporate income taxes in 2022).

Chart 3 • Top statutory CIT rate | Percentage



Sources: European Commission (Banco de Portugal calculations). | Notes: The euro area average is a simple average of the countries.

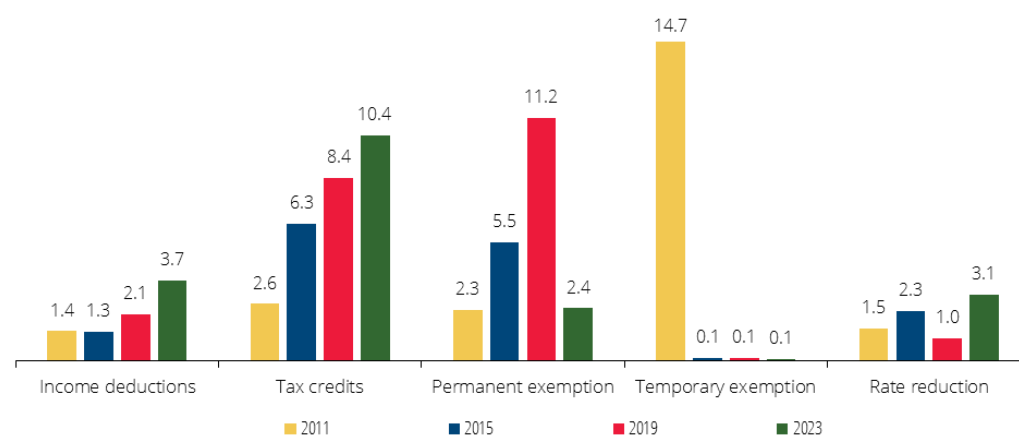


There are multiple corporate tax benefits, increasing the complexity of the system and accounting for 20% of total tax revenue.

Corporate tax benefits were allocated to more than 60 thousand firms in 2023 and totalled €1.8 billion, corresponding to 20% of total tax revenue and representing an increase of 18% compared to 2019 and more than 100% compared to 2015 (Chart 4). There has been an increase in the share of income deductions and tax credits over the years.

More than half the benefits in 2023 are tax credits, most notably the System of Tax Incentives for Business Research and Development (Sistema de Incentivos Fiscais em Investigação e Desenvolvimento – SIFIDE), accounting for 70% of expenditure in this category (€657 million). Also in terms of deductions, 25% of tax expenditure is allocated to the investment support tax scheme (€226 million). The remaining benefits include, by size, the tax scheme promoting firm capitalisation (€179 million), exemptions for public benefit purpose and social solidarity legal persons (€127 million) and the rate reduction for entities licensed in the Madeira Free Trade Zone (€74 million).

Chart 4 • CIT benefits in Portugal | Percentage of CIT revenue



Source: Portuguese Tax Authority. | Notes: The figures published by the Tax Authority correspond to the amounts declared by taxable persons for the 2011, 2015, 2019 and 2023 tax periods. It only includes tax benefits equal to or greater than 1000 euros. The 2011 temporary exemption includes the exemption granted to the Madeira Free Trade Zone, which was modified from 2012 onwards.



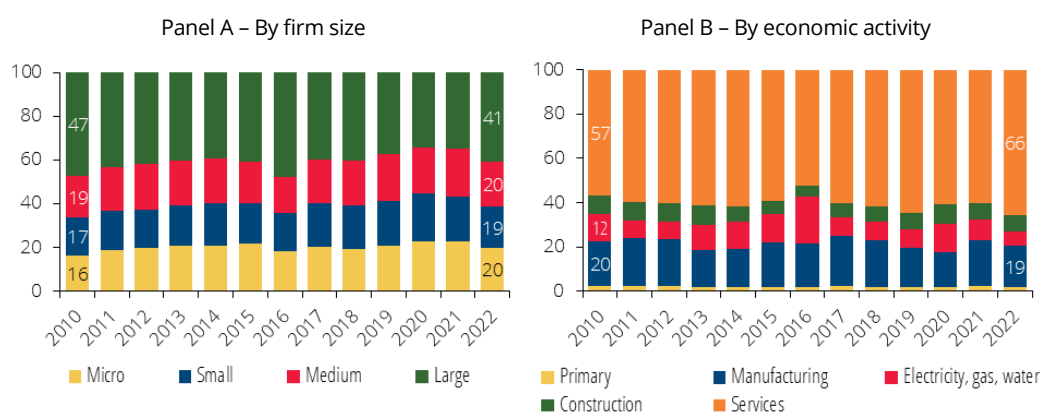
In 2022, the median effective tax rate was 19%, being higher for large firms, which accounted for 41% of the tax paid.

Based on Simplified Corporate Information (Informação Empresarial Simplificada – IES) microdata, which covers the universe of non-financial corporations in Portugal – accounting for 85% of corporate income taxes paid – it is possible to characterise firms subject to the CIT and calculate effective tax rates by type of firm. The effective rate is calculated as the ratio of expenditure on current tax payments to income before taxes.

The Portuguese economy is dominated by microenterprises, which account for close to 90% of all non-financial corporations, 15% of turnover and 20% of total corporate income taxes paid in 2022 (Chart 5 – Panel A). In turn, large firms represent only 0.3% of the total non-financial corporations, but account for 45% of the turnover and over 40% of the tax paid. In terms of sector classification, most firms belong to services, which accounts for 60% of the turnover and bears more than 65% of the tax (Chart 5 – Panel B).

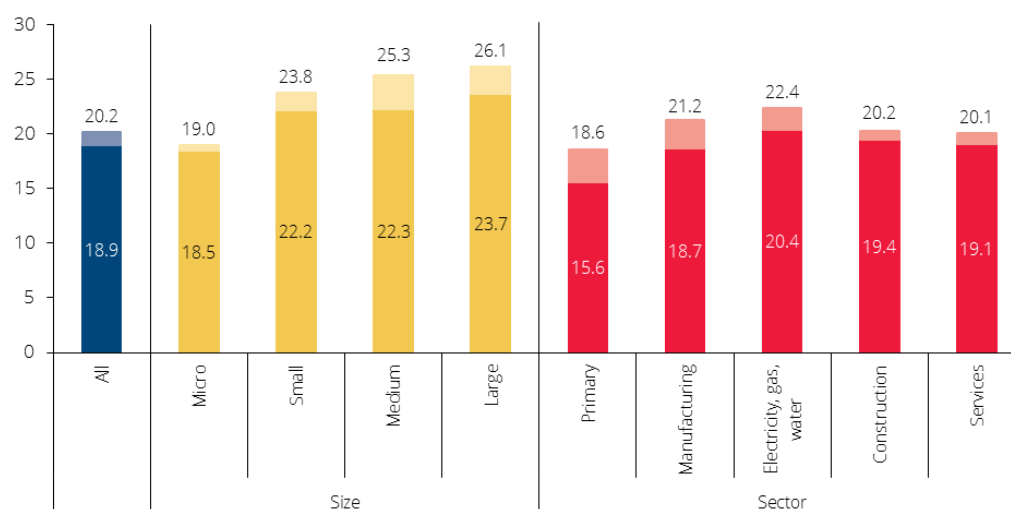
In 2022 the median effective rate stood at 19% (Chart 6). A comparison of firms of different sizes shows that microenterprises pay an effective rate 5.2 p.p. lower than large firms. This differential would be 7.2 p.p. in the absence of tax benefits. By sector of activity, industry, construction, and services show effective rates close to and around 19%, while the primary sector has the lowest rate (16%) and the electricity, gas and water sector has the highest median rate (20%).

Chart 5 • Distribution of CIT paid by firms in Portugal in 2022 | Percentage



Sources: IES (Banco de Portugal calculations). | Notes: Only non-financial corporations are considered. CIT corresponds to the accounting item current taxes on income.

Chart 6 • Effective CIT rate (median) in Portugal in 2022 with and without tax benefits | Percentage



Sources: IES and Portuguese Tax Authority (Banco de Portugal calculations). | Notes: Only non-financial corporations are considered. The effective tax rate is calculated as the ratio between current tax expenses, including autonomous taxation, and each firm's pre-tax income. The median is shown for each subset of firms because the averages are biased by outliers. Only non-financial firms with strictly positive pre-tax earnings are considered. The sample only includes firms whose effective tax rate is between 0% and 100%. The striped bars correspond to the increase in the rate if there were no tax benefits.

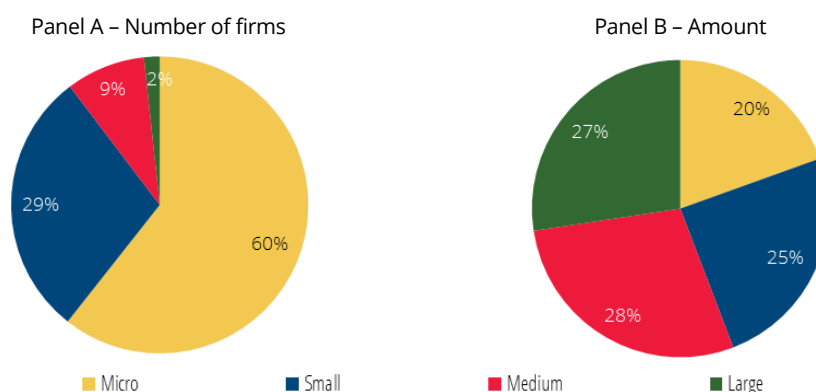


Large firms account for 2% of firms with corporate tax benefits and accumulate 27% of the benefits granted.

Smaller firms may face difficulties accessing tax benefits, which undermines the fairness of the instruments. In Portugal, large firms represent 2% of the beneficiary entities (six times their share in total firms in the economy), concentrate 52% of the turnover of beneficiary firms and accumulate 27% of total benefits (Chart 7). In contrast, 60% of the beneficiary entities are microenterprises (two-thirds of their share in the corporate sector), accounting for 5% of the turnover of beneficiary entities and receiving 20% of their value. The remaining 53% are allocated to small and medium-sized enterprises, which account for 38% of the beneficiary firms.

By sector of activity, there is a large concentration in terms of number (73%) and amount (63%) in services, which is also the sector that bears the largest share of the tax. The primary sector, in turn, despite accounting for a small share in terms of CIT payments (around 2%), includes 6% of the beneficiary firms and captures 4% of the benefits allocated. The electricity, gas and water sector also stands out for receiving the highest average value per firm.

Chart 7 • Distribution of CIT benefits by firm size in Portugal | Percentage



Sources: Sistema de Partilha de Informação de Referência (SPAI) and Portuguese Tax Authority (Banco de Portugal calculations). | Notes: Only entities with tax benefits of 1000 euros or more are considered. It was not possible to characterise 1% of the beneficiary firms in terms of their size.



The macroeconomic impact of a reduction in the CIT depends on firms' decisions to reinvest the increased net profit.

The long-term macroeconomic impact of a permanent reduction in the effective corporate income tax rate can be estimated using a dynamic general equilibrium model. In this model, intermediate and final goods producers operate in monopolistic competition, generating taxable profits that constitute a source of government revenue. Profit net of taxes may be reinvested in firms or distributed among business owners. The model's equilibria depend on the assumption that total factor productivity is not influenced by the reduction in the corporate income tax and do not reflect any fiscal competitiveness impact and possible foreign investment attraction.

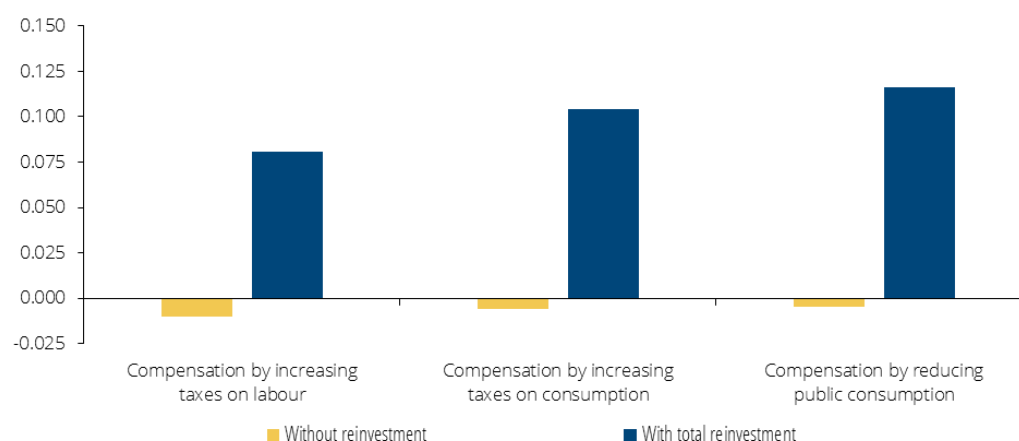
In the model, the government revenue loss generated by the permanent reduction in the effective corporate income tax rate must be offset in the long run to stabilise public debt as a percentage of GDP. For this offsetting, three alternative instruments are considered: (i) a rise in labour taxes, (ii) an increase in consumption taxes or (iii) a reduction in public consumption.

In all scenarios, without reinvesting tax savings, economic activity falls following a reduction in the corporate income tax, given the need to offset the loss of tax revenue (Chart 8). If the increased net profit generated by the reduction in the effective corporate income tax rate is fully distributed among business owners and not reinvested, there is a reduction in investment and economic activity, as the adverse impact of lower public consumption or higher taxes to stabilise public debt prevails.

Results suggest that economic activity increases by around 0.1% in the long run if the reduction in the effective corporate income tax rate is fully reinvested by firms, who witness an equity position improvement. In the full reinvestment scenario, a more favourable financial situation and lower leverage ratios give firms better financing conditions, which boosts investment levels. Among the three alternatives to offset the loss of tax revenue, the reduction in public consumption generates a less negative impact on activity, given that it is less detrimental to households and has a lower negative impact on resource allocation.

The decision to reinvest the proceeds from tax reductions lies within the company's sphere of decision-making. Therefore, an alternative to the statutory reduction of CIT is to create direct incentives for business capitalization and thus encourage the reinvestment of the reduced tax burden by companies.

Chart 8 • Long-term impact on economic activity of a 1 pp reduction in the effective CIT rate
| Percentage



Source: Banco de Portugal calculations. | Notes: Deviations from the levels recorded in the period preceding the reduction in the effective CIT rate, in percentage. The results were obtained from simulations using an updated version of the model presented in Júlio and Maria (2022), *Pandemic shocks, Economic Studies*, Vol. VIII, No. 3, Banco de Portugal, which was estimated with data for the Portuguese economy from 1999 to 2019. In the model, public consumption aggregates public consumption and investment, and it is assumed that this variable plays no role in maximising households' utility and there is no public capital stock with productive effects. Total factor productivity of the economy is an exogenous variable in all the simulation exercises and is not affected by the reduction in CIT. Comparative advantages based on changes in Portugal's tax levels relative to other countries are not considered.



Policies aimed at reducing the CIT require reconciling the government budget constraint with the goals of economic growth.

The statutory CIT rate in Portugal varies according to firm size, profit and location. Although the top rate is one of the highest in the euro area, it only applies to a very limited number of firms. The diversity of tax benefits and preferential arrangements allows many firms to have access to a lower effective rate. However, excessive proliferation of these instruments results in increased complexity of the tax system and reduced transparency. These benefits add to the several subsidies and direct support measures for business investment available in Portugal, which are allocated outside the tax sphere and are very significant, especially in recent years. In the context of the pandemic crisis and the inflationary process, subsidies averaged around 2% of public expenditure, accounting for 35% of corporate income tax revenue.

Revenue from the CIT plays a key role in financing public expenditure in Portugal. Therefore, any corporate tax relief should be assessed within the available fiscal space. Moreover, long-term macroeconomic impacts remain uncertain. It is recommended that tax changes be predictable to reduce adjustment costs and encourage well-informed investment decisions.

