The Greek Economy

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The Foundation for Economic and Industrial Research (IOBE) is a private, non-profit, public benefit research organisation. Its purpose is to promote research on current problems and prospects of the Greek Economy and its sectors and to generate reliable information, analysis and proposals for action that can be of value to policy makers.

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Foreword

IOBE is publishing its fourth report for 2022, as part of the periodic reviews of the Greek economy, It contains four sections, accompanied by an annex of structural indicators, comparing the performance of Greece with that of the remaining countries in the Euro area. It is preceded by an introductory text highlighting the prospects of consolidating the positive momentum in the face of challenges. The remaining sections include the following:

The first section contains a brief overview of the report, setting out its highlights, analysed in detail in the following sections. The second section outlines the broader economic environment and includes: a) analysis of the international environment in the third quarter of 2022, the assessment of 2022 overall, and the outlook for 2023, b) presentation of the economic climate in Greece in the fourth quarter of 2022, according to the results of the business and consumer surveys of IOBE, c) assessment of the balance of the State Budget for January-November this year and d) developments in the domestic financial system up until November 2022.

The third section focuses on the performance of the Greek economy. It outlines the macroeconomic environment with an emphasis on the third quarter of 2022 and presents the forecasts for 2023, based on assumptions and taking into account the latest available data. It analyses developments in key production sectors in the third quarter of last year and presents the export performance of the Greek economy for the same period, based on data from both the national accounts and the balance of payments. After that, it outlines developments in the labour market over the third quarter of last year. It then analyses the inflation trends in the first eleven months of 2022.

The fourth section presents the main findings from a recent IOBE study on the opportunities created by the development of the circular economy. The current report contains two special text boxes, one showing trends in deflation indicators in selected GDP components (section 3.1A) and one describing the correlation of trends between producer and import prices with consumer prices in 2021-2022 (section 3.5).

This report refers to and is based on data available until 17/1/2023.

IOBE's next quarterly report on the Greek economy will be published in April 2023.

PROSPECTS FOR CONSOLIDATION OF THE POSITIVE MOMENTUM AMONG CHALLENGES

In 2022, the Greek economy recorded particularly significant growth momentum, following a cycle of fluctuations that started with the pandemic. The growth rate weakened during the year, tracing the respective base of comparison, with the annual rate estimated at around 5%. There was also high inflationary pressure, estimated to be just under 10%. For the 2023, a significant decline in growth is expected, to 1.5% annually, amid slowing growth in the European economy. A significant de-escalation in inflation is also expected, albeit remaining high, at around 4%. This general framework creates a number of specific challenges, as the Greek economy can and must show evidence of continued dynamism, even in an unfavourable wider environment.

Significant positive factors

In the assessment of the course of the economy in the short term, there are significant positive factors. The accumulated potential of the Greek economy is greater than that in most European countries. Unemployment, and the pool of untapped labour in general, remains high, and the investment gap is even greater. The Recovery Fund and the remaining inflow of European funds are of high importance and can mobilise wider investments. Export-oriented businesses, mainly in manufacturing, have gained their place in global value chains. Public debt, although very high, is currently less exposed to interest rate hikes than in other economies.

Also on the positive side, euro area policies signal continued support, with conditionality. A series of institutional changes during the 10-year crisis and more recently have a positive impact while there is considerable scope for further reforms to strengthen the economy. The banking system is now more robust, and the recovery of the investment grade is feasible towards the end of the year, facilitating investment. Overall, and starting from a lower base, our economy can run faster than Europe's average next year and beyond.

The external environment is putting pressure on exports and investment

On the negative side of the assessment for 2023 the slowdown in growth in the wider environment, especially in Europe, and the continued rise in interest rates by central banks as long as inflation remains high, will burden two key pillars for the growth of our economy: exports and investments. Exports have recently been growing, but they are exposed to lower demand abroad and a persisting competitiveness deficit over time. Meanwhile, investment is hampered by rising interest rates and an expected slowdown in growth. Also, exports and investment are not favoured by prevailing uncertainty and high volatility. Economic decisions are being made to avoid risk exposure, and therefore are more inward-looking and short-term, exactly the opposite of what is desirable. As the consumption support is depleting, positive growth is expected, but much weaker than last year, and the risks are heightened.

At the same time, the impact of systemic weaknesses in the Greek economy is also emerging. Of the important indicators for its course, two have distinct criticality: trade balance and inflation. Our economy is growing faster than most in the EU, but as consumption accounts for a very large part of it, its trend also has undesirable consequences. In the external balance, the main issue is the imports caused by growth. In exports, the trend is positive, with a significant increase in product exports in recent years, a strong recovery in inbound tourism after the pandemic, and even considerable mobility in sales of other services abroad. However, import growth was significantly stronger in 2022, leading to a deterioration of the balance. In nominal value and without petroleum products, in January-November, exports increased by 22% year on year, imports by 28%, and the deficit by 36.5%. With petroleum products, the deterioration is even greater, by 58.5%.

Concern about the trade balance and inflation

Inflation, by contrast, was driven by external developments. It reached a 27-year high last year and is expected to de-escalate but not fast. While in the first nine months of the year, the largest contribution came directly from energy, in the fourth quarter food, services, and non-energy goods took precedence. In the first nine months of the year, domestic inflation outweighed the euro area average, then declined to the single-digit region. However, core inflation in Greece is higher: the change in prices excluding energy, food, beverages, and tobacco was 4.5% in January-November, compared with 3.8% in the euro area. If this consolidates, it will be very worrying, as it will undermine competitiveness and the possibility of raising incomes thereafter.

The tendency for the trade deficit to widen when there is growth reflects relatively low competitiveness. The trend towards rising prices of products and services as consumption recovers suggests that there is little ability of production to respond in a timely manner and that the intensity of competition is low. In combination, despite significant progress at many levels, macroeconomic and structural, there are still strong inertia forces and backward traps in our economy, which require further systematic strengthening of the productive base in order to be overcome.

One issue of high importance is to quickly achieve an investment grade rating of the Greek economy. This is closely related to its growth and to the degrees of freedom to strengthen it. The grade was lost in 2010, initially by one rating agency, with the others following soon. Since 2012, there has been a gradual improvement in the credit rating, with the exception of the period of extreme uncertainty in 2015. However, the current rating of the Greek State is 1 to 3 tiers short of the investment category, depending on the rating agency. The time spent without an investment grade has been particularly long. It is closely related to the prolonged duration of the three successive adjustment programmes. Cyprus and Portugal remained without investment grade for more than 6 years and recovered it within 3 and 4 years respectively after the end of their programmes. The year 2023 is the fifth year since the end of the last Greek programme.

The recovery of the investment grade is critical

With the investment grade, Greek bonds would become eligible for investment by large international, institutional, and long-term investors, significantly increasing liquidity in the primary and secondary markets. Greek debt securities would be eligible as collateral in interbank lending. Greek government and corporate bonds would also be allowed by the ECB for quantitative easing policies, without the need for a special waiver. Finally, it would provide a more general signal for the markets, strengthening expectations, and leading to a broadening of the investment base and a de-escalation of financing costs. Overall, the investment grade is a condition for the necessary significant increase in investment in order to systematically put the Greek economy on the path of strong growth.

The rating agencies take into account structural, macroeconomic, and fiscal factors and the external balance. So, the more uncertainties there are about the future of the economy, the longer the acquisition of the investment grade will be delayed. If the upcoming elections do not disrupt the course of the economy, the ongoing improvement is very likely to lead to the desired upgrade towards the end of 2023, accelerating the improvement of the economy from then on. It is therefore absolutely crucial to reach an investment grade sooner rather than later and, of course, to maintain it afterwards.

In addition to other important factors for improving the economy, fiscal stability is a critical condition. Achieving primary surpluses as soon as possible, and in particular in a sustainable manner, is a prerequisite for the systematic growth of the Greek economy.

On the tax revenue side, there are four positive developments this year, from the growth of the economy itself, from the impact of the diffusion of electronic payments, from indirect taxes due to inflation, and from income taxes due to the application of a progressive scale.

On the expenditure side, welfare support policies have played a central role in the economy in recent years. This was to a large extent unavoidable, as unprecedented constraints from the pandemic and then the sharp and unexpected rise in energy and other commodity prices made the survival of many households and businesses difficult. Such policies were followed in most European countries, and without these interventions, the wounds from the external crises would have been much deeper. The analysis of the allowances is usually exhausted in their budgetary dimension and the balances of transfers. The golden middle is not always easy to find - groups of the population have obvious and large needs, some systematically and others at times of crises, but excessive use of benefits poisons an economy. In addition to the effects of allowances on fiscal and macroeconomic balances, it should also be noted that, depending on the precise way in which they are planned, benefit policies may have collateral effects. Thus, benefits given to mitigate the effects of inflation may in the process run counter to its reduction if they are given in terms of current consumption of goods and services whose prices are rising. Similarly, covering a large part of the increase in energy prices does not create incentives to reduce energy consumption and save energy when it is expensive. At the same time, the need for benefits to target only those most affected and not to be excessive in general creates distortions when taxpayers can hide their income, or even reduce their work, to become beneficiaries of current and future benefits. The proper design of the benefits grid, combined with tax and other policies, is a difficult equation to solve.

Setting aside unexpected new external shocks, the most critical driver will come from political developments and decisions in the European context and at home.

Uncertainties in the European environment

For Europe, which affects us directly, it will be crucial to handle the effects of the triptych of the energy crisis, inflation, and the Russian invasion. Coherence and efficiency are needed, so that our continent does not continue to lag behind America and Asia. How to shape the rules for the fiscal framework is also of high importance. There are three sources of danger. First, that the current balance in terms of fiscal measures and common borrowing has a maturity date and will be reversed if a form of a fiscal union is not decided in the foreseeable future. Secondly, how to avoid contradictions between monetary and fiscal policies, in particular regarding the handling of aggregate demand. Thirdly, how to find a new balance and dynamic in industrial policy, both in relation to global challenges and without distorting competition between European companies.

For our country, the importance of the parliamentary elections is high. When and how a government is formed will determine crucial economic developments. Not just about whether there will be a stable framework that will allow for significant investment. But also, for policymaking that can combine two desirable features: seriousness in a dangerous environment and intention for deep reforms. On the one hand, the condition of seriousness covers, among other things, the need to protect the fiscal balance, a firm focus to attract investment even against the international climate, and recovery of the investment grade sooner rather than later. On the other hand, the implementation of reform policies in practice, in the public sector and in the markets, is necessary not only to increase incomes, but also to avoid new crises and backsliding.

1 BRIEF OVERVIEW

International environment: Mild slowdown in inflation and economic activity

Based on the latest OECD forecasts (November 2022), the global economy is estimated to have grown at a rate of 3.1% in 2022, while for 2023 a lower growth is projected at around 2.2%. Inflation in November in the 38 OECD countries reached 10.3%, falling marginally from the 10.7% recorded in the previous month which was a high record of 39 years. Most central banks worldwide are carrying out systematic interest rate hikes in a short period of time, with the resulting tightening of financial conditions already dampening inflation expectations. The possibility of a “soft landing” of the economies and avoiding a global recession remains a more likely scenario, but ongoing shocks cause uncertainty and volatility in expectations. A more extensive analysis is presented in section 2.1A.

European economy: Marginal recovery expected in 2023

The ongoing war in Ukraine, high long-term inflation, and rising financing costs are slowing down the dynamics of the European economies. Rising costs of living for households, variability in the cost of raw materials for businesses, and the risk of energy shortages create a need for policy measures at multilateral and national levels. In this context, coordination between fiscal and monetary policies is crucial in order to strike a balance between the objective of containing inflation expectations and avoiding an economic downturn. The public consultation on the revision of the EU fiscal rules framework in 2024 is an opportunity to deepen the monetary union through the new crisis.

The annual rate of change in real GDP in the euro area in the third quarter of 2022 declined to 2.3% from 4.1% in the previous quarter. Economic sentiment deteriorated further in Europe in the fourth quarter, but there were signs of improvement towards the end of the year and in December in particular. The ECB has already hiked its key interest rates four times in the second half of 2022, cumulatively by 250 basis points, while the upward trend is expected to continue in the first half of 2023, with obvious implications for the cost of private and public financing. The trends in the European economy are detailed in section 2.1B.

Greece’s recovery in the third quarter of 2022 was weaker than anticipated, yet it remains strong for the whole of last year

The annual recovery of 2.8% in the third quarter of 2022, compared with 7.1% in the previous quarter, was lower than expected. The slowdown was mainly due to a sharp fall in the annual growth rate of exports of services to 3.0% from 45.8% in the previous quarter, with exports of goods declining marginally. The decline in the annual growth rate of imports of goods to 8.6% was proportionally smaller, resulting in a significant deterioration in the external deficit, despite an annual decline in the imports of services by 4.6% in the same quarter. Resilient household consumption, which increased annually by 6.2%, as well as a 12.3% boost in investment, made a significant contribution to the recovery for yet another quarter. Regarding the inflationary pressures per GDP component, the import and export deflators exceeded those of consumption and fixed capital investment, but also those for the euro area (text box 3.1). A detailed presentation of the macroeconomic performance in the third quarter of this year is included in section 3.1A.

Mixed trends in key sectors of domestic activity and a slowdown in the fourth quarter

Industrial production strengthened in the first eleven months of 2022, with an average of 2.6%, compared to a growth rate of 10.2% in 2021. However, there was a slowdown during 2022 and a trend reversal in the fourth quarter. Construction recorded strong output growth of 20.8% in the first nine months of 2022, up from 6.1% in the same period of 2021. Retail trade increased in volume by 3.9% in the first ten months of 2022, against an increase of 2.5% in 2021. However, expectations were deteriorating during 2022, and volume dropped year on year in October. By contrast, historically high rates of tourism activity were recorded in the third quarter. In addition, six of the thirteen sub-branches of Services show an improvement in turnover in the first nine months of 2022. Short-term trends in key sectors of the Greek economy are highlighted in section 3.2.

Significant deterioration of the external balance

Exports in the national accounts increased strongly in nominal terms in the first eleven months of 2022, at a rate of 37.8%. Exports excluding petroleum products had a milder, yet still strong growth (+20.3%). All product categories had a rise in nominal terms, with the largest increase recorded in the exports of fuel and industrial products. On the import side, the increase in current prices was higher than that of exports, at a rate of 45.7% in the first eleven months. As a result, the trade deficit widened significantly compared with 2021 by 58.8%, to EUR 35.2 billion. On the positive side, the openness of the Greek economy continues to be high in historic terms in 2022, as the sum of exports and imports, as a percentage of GDP, exceeds 82%.

Regarding the balance of payments, the current account deficit increased significantly in the first ten months of 2022, to EUR 13.6 billion, compared with EUR 7.3 billion in 2021. At the same time, the goods account including the trade balance excluding oil and ships, and the primary and secondary income accounts, deteriorated, partly offset by an improvement in the services account, mainly due to tourism and transport. The developments in the external balance are described in more detail in Section 3.3.

Slowdown of the unemployment reduction

The unemployment rate kept falling in the third quarter of 2022 to 11.6%, from 13.0% in the third quarter of 2021. In the first eleven months of 2022, the balance of hirings and exits was positive by 64,000 but lower than the positive balance in the first eleven months of 2021 (+135,700). The sectors with the highest growth in employment were education (+ 36,600 employed), the primary sector (+20,300), and water supply-sewage treatment (+16,900), while the sectors with the strongest reduction were public administration (-15,500 people) and Transport-Storage (-10,000). The seasonally adjusted wage cost index increased year-on-year in the third quarter of 2022 by 1.8% compared to the same quarter of 2021.

Employment is expected to be impacted more mildly by higher investment, using the resources of the recovery fund, and weaker consumption and export growth. These factors are expected to partially offset the negative impact of rising interest rates and persistently high energy costs on firms' labour demand. A further downward trend in unemployment is expected in the coming quarters, with a clear slowdown of the decline. Taking into account the above effects, the unemployment rate is estimated to have fluctuated in the 12.3% region in 2022, while in 2023 it is expected to be in the region of 11.5%. Recent developments and expectations for the labour market trend are included in Section 3.4.

Mild decline in inflationary pressures

International energy prices showed signs of a gradual decline at the end of 2022, although they continue to fluctuate at particularly high levels. At the same time, the euro recovered slightly against the dollar. Domestically, the highest rate of inflation was recorded since 1994, at 9.6%, compared with only 1.2% a year ago. The strengthening in prices is mainly attributed to the upward impact of energy prices in the first nine months and of non-energy goods in the last quarter.

In the first eleven months of the year, Greece had the 7th highest annual rate of change in the HICP among the 19 euro area countries (Annex). Indicatively, the rate of change in HICP with fixed taxes and excluding energy rose to 6.0% in the first eleven months of 2022, from a decline of 0.1% a year ago. The rise in consumer prices (HICP) remains significantly softer than import (IPI) and producer prices (PPI) in food, beverages, tobacco, and energy products (Special Box 3.2). Section 3.5 describes in more detail recent trends in consumer and producer prices, as well as expectations for their evolution in 2023.

Key assumptions for the inflation forecast are: (i) the evolution of the price of Brent oil valued in euro, which is expected to decline annually by around 17% in 2023, (ii) the evolution in aggregate consumer demand, which is expected to post a significantly more moderate growth, and (iii) the supply side, which will be affected by cost shocks and second-round effects of rising energy prices. For 2023 as a whole, the Consumer Price Index is projected to increase by about 4.0%.

Domestic economic sentiment has mildly deteriorated, despite its improvement in late 2022

Greece's Economic Sentiment Indicator declined slightly in the fourth quarter of 2022 compared with the previous quarter (101.4 from 102.6 points). The decline is noticeable compared to the same quarter of the previous year (112.7 points), despite an improvement towards the end of 2022. Business confidence declined in the fourth quarter of the year compared to the previous one in Industry and Services, while it increased significantly in Retail Trade and to a lesser extent in Manufacturing. The Consumer Confidence Indicator improved marginally in October-December compared with the previous quarter, to -52.6 (from -53.6 points). At the same time, it was significantly lower than a year earlier (-38.8 points). A detailed description of trends in the components of the economic sentiment can be found in Section 2.2A.

Fiscal policy within targets in 2022, with challenges for 2023

Budget implementation was close to the 2022 targets. The cash targets were exceeded in the first eleven months of 2022 while a significant annual increase was recorded in government revenues (+10.2%) due to stronger economic activity and inflation. At the general government level, according to the 2023 budget, a deficit of -4.1% and -2.0% and a primary balance of -1.6% and +0.7% are estimated for 2022 and 2023 respectively. Public debt is estimated to fall further this year as a percentage of GDP, to 159.3%. The year 2023 is a year of elections, the first year Greece will not be under close fiscal surveillance since 2010, and the year in which the country is expected to recover its investment grade. Prudent financial management is therefore particularly crucial. Recent budgetary developments are described in detail in Section 2.2B.

The banking system accelerates the uptake of the loan arm of the Recovery Fund

The non-performing loans on banks' balance sheets fell in the third quarter to a single-digit percentage of total loans, for the first time since 2009. However, they remain an important hurdle for the economy, while their rate of decline is slowing down or even turning to growth (mortgage loans). Among the positive developments in late 2022, credit growth to businesses strengthened, while the implementation of the loan arm of “Greece 2.0” accelerated, creating opportunities to further boost of lending to productive investments.

The challenges for the banking system in late 2022 include the halting of the growth in private deposits, the increase in financing costs, the risk of a new round of arrears due to the energy crisis, and the unabated credit contraction to households. In parallel with a gradually tighter monetary policy, the ECB’s liquidity-providing tools are gradually becoming more expensive, while the financing conditions from capital markets have deteriorated significantly. Priorities for the banking system are the continued improvement in asset quality and equity, as well as the effective implementation of the bankruptcy code and the out-of-court debt settlement mechanism. Recent trends and challenges for the domestic financial system are described in detail in Section 2.2C.

Macroeconomic forecasts for the years 2022 and 2023

The slowdown in euro area growth, high inflation, fiscal developments, geopolitical instability in Eastern Europe and the Mediterranean, and the execution of the “Greece 2.0” plan will be the major drivers of GDP developments in 2023.

The assumptions of the baseline scenario are detailed in Section 3.1B. They include (a) weak growth in the euro area of 0.5% in 2023, in line with the ECB’s baseline scenario (b) a decline in the impact of the pandemic, (c) no further intensification of geopolitical instability, (d) acquisition of investment grade in the second half of 2023, (e) a slight delay in the implementation of the “Greece 2.0” plan, (f) slightly higher public expenditure compared to the 2023 Budget and (g) tourism revenue performance similar to 2019.

Detailed projections by GDP component are described in Section 3.1B. In particular, the IOBE is revising downwards the estimate for a recovery in 2022, to 5.2%, at constant prices, mainly due to a smaller increase in exports (5.8%). The estimate for 2022 as a whole also includes an increase in consumption by 5.5%, investment by 12.1%, and imports by 9.1%. For 2023, IOBE expects slower annual growth, by 1.4% in real terms, due to a slowdown in the global economy and sustained inflation and uncertainty. In terms of growth components in 2023, investment is expected to make the highest contribution, with an annual expansion of 8.5%, while consumption is expected to increase by just 0.3% (with more resilient private consumption, +0.8%). A slight further deterioration in the current account is also expected, with exports and imports increasing annually in 2023 by 2.1% and 2.7% respectively.

The forecast in IOBE’s baseline macroeconomic forecast scenario (Table 1.1) entails positive prospects and risks for 2023, which are detailed in section 3.1B.

Table 1.1

IOBE macroeconomic forecasts (January 2023) for 2022-2023

(in constant market prices, annual % changes, unless indicated otherwise)

	2021 (actual)	2022	2023
GDP	8,1%	5,2%	1,4%
Consumption	5,1%	5,5%	0,3%
Private consumption	6,1%	7,7%	0,8%
Public consumption	2,4%	-1,1%	-2,0%
Gross investment	21,2%	12,1%	8,5%
Exports	24,1%	5,8%	2,1%
Imports	18,0%	9,1%	2,7%
Inflation rate	1,2%	9,6%	4,0%
Unemployment (% labour force)	14,7%	12,3%	11,5%

Special study: Circular economy – opportunities, challenges, and economic effects

The study carried out by IOBE on behalf of the diaNEOsis research organisation highlights the importance of adopting the circular economy model for both the natural environment and the Greek economy at large. It tracks the trends related to material efficiency in Greece (mining, consumption, disposal, and management). It also presents the European and national institutional framework governing the circular economy and records targets and timetables for their achievement. Using an input/output model that IOBE has adapted to the Greek economy, the study estimates the economic effects of the transition to circularity. Finally, it outlines policy proposals aimed at accelerating the transition and the use of the potential for the Greek economy.

2 ECONOMIC ENVIRONMENT

2.1 Trends and Prospects of the Global Economy

A. The Global Environment

- Based on the latest OECD forecasts, the global economy is estimated to have grown at a rate of 3.1% in 2022, while for 2023 it forecasts lower growth than the June forecast (2.2% from 2.8%).
- Global inflation has risen to a peak of 39 years due to the strong rise in energy, raw material, and food prices.
- Global monetary policy is becoming more restrictive, which increases the chances of a sharp 'landing' of economic activity.

The global economy continues to face significant challenges as growth rates contract, while inflation remains high, because of Russia's invasion of Ukraine. The economies of the OECD countries grew at an annual rate of 2.5% in the third quarter of 2022, after GDP growth of 3.3% in the previous quarter and growth of 4.9% in the corresponding quarter of 2021. The annual rate of change of GDP in the major developed economies (G7) stood at 1.9%, compared with 2.4% in the previous quarter and growth of 4.3% in the corresponding quarter of 2021. OECD's 20 largest economies grew at 3.3% in the third quarter of 2022, up from 2.8% in the previous quarter, after growth of 4.8% in the same quarter of 2021.

The war in Ukraine is still ongoing, but it is unlikely that it will end soon, becoming the most important source of uncertainty for the world economy. The most important economic consequence of the war on a global scale is the surge in inflation, which in November in the 38 OECD countries reached 10.3%, falling marginally from the 10.7% recorded in the previous month, its highest rate in the last 39 years. Core inflation (excluding energy and food) reached 7.5%, while energy and food prices rose by 23.9% and 16.1%, respectively.

Particularly in Europe, the extremely mild winter so far and the strong supply of liquefied natural gas in Europe have resulted in keeping reserves high for the season, while the price of natural gas has also fallen to a low of 18 months. Therefore, achieving energy adequacy for the current winter appears to be the predominant scenario. In addition, most governments are making fiscal interventions to support households and businesses, which limits the negative impact on economic activity. However, despite positive developments, Europe still faces strong uncertainty over the medium term.

The maintenance of inflation at high levels and a strong labour market in many countries have changed the monetary policy stance to restrictive, leading to significant interest rate increases in a short period of time. The tightening of financial conditions has already started to work, while the rise in interest rates is expected to continue at a slower pace from now on. While the possibility of a “soft landing” of economies and avoiding a recession remains a possible scenario, continued further interventions increase the likelihood of a steeper than intended landing of economic activity.

Table 2.1

Global Environment (annual % GDP growth, in real terms, unless stated otherwise)

Economy	2021	2022		2023	
		Forecast	Difference from previous forecast*	Forecast	Difference from previous forecast*
World	6,0	3,1	0,1	2,2	-0,6
USA	5,7	1,8	0,7	0,5	-0,7
Japan	1,7	1,6	0,1	1,8	0,0
Canada	4,5	3,2	0,6	1,0	-1,6
United Kingdom	7,4	4,4	0,8	-0,4	0,4
Eurozone	5,2	3,3	0,7	0,5	-1,1
Germany	2,6	1,8	0,1	-0,3	-2,0
France	6,8	2,6	0,2	0,6	-0,8
Italy	6,7	3,7	1,2	0,2	-1,0
Turkey	11,4	5,3	1,6	3,0	0,0
China	8,1	3,3	-1,1	4,6	-0,3
India	8,7	6,6	-0,3	5,7	-0,5
Brazil	4,6	2,8	2,2	1,2	0,0
World trade	10,1	5,4	0,6	2,9	-1,0

* Difference in percentage points from previous OECD forecasts (OECD Economic Outlook, June 2022)
Source: OECD Economic Outlook, November 2022

Global GDP growth over the past year is estimated at 3.1%, while for 2023 growth of 2.2% is projected in the recent OECD report, down from 3% and 2.8% respectively projected in last June’s report. World trade volume growth is estimated at 5.4% for 2022 and is projected to moderate to 2.9% in 2023 as demand declines and price pressures continue. Table 2.1 shows the annual changes in GDP in 2021 and the latest OECD forecasts (November 2022) for its annual changes in 2022 and 2023, in the world economy and in selected developed and developing countries.

Next, we analyse recent and expected trends in the economies of major states and associations of states for 2022 and 2023.

Among the major developed countries, the United States recorded an annual growth rate of 1.9% in the third quarter of 2022, down from 1.8% in the previous quarter and 5% in the corresponding quarter of 2021. The marginal increase reflects growth in exports, consumption, non-residential fixed capital investment, and government expenditure, which were partly offset by a decline in residential fixed investment. Inflation slowed for the sixth consecutive month to 6.5% last December from a 40-year high in June 2022 (9.1%). To control inflationary pressures, the Fed has proceeded to successive increases in its base rate, raising the total by 425 basis points between March 2022 and December 2022, to 4.25%-4.50%, with a further increase to 4.75%-5.00% anticipated by mid-year. In 2022 as a whole, the US economy is estimated to grow by 1.8%, with weak growth projected for next year (0.5%).

The euro area economy grew at 2.3% in the third quarter of 2022, down from 4.2% in the previous quarter and 3.9% in the same quarter of 2021. Compared with the second quarter, there was a growth of 0.3% on a seasonally adjusted basis, with fixed capital investment having the largest positive contribution (+0.8 pps) followed by household expenditure (+0.4 pps), which was partly offset by the negative impact of the trade balance (-1.1 pps). Inflation fell to 9.2% last December in the euro area, from a record high of 10.6% in October 2022. The ECB has made four successive increases in its base rate of 250 basis points between July 2022 and last December, to 2%. Further increases are expected by mid-year, looking at high inflation levels of 8.4% overall for 2022, before falling to 6.8% in 2023 and 3.4% in 2024 as planned. In 2022 as a whole, the euro area is estimated to have grown at a rate of 3.3%, up from 5.2% last year, while for 2023 it is projected to grow by 0.5%.

In the United Kingdom, GDP rose by 1.9% in the third quarter of last year, against 4% in the previous quarter and 8.5% a year earlier. For 2022 as a whole, growth is estimated at 4.4% from 7.4% in the previous year, while a marginal recession is projected for the following year (-0.4%).

In Japan, GDP grew by 1.7% in the third quarter of 2022, after an increase of 1.4% in the previous quarter and an increase of 1.7% a year ago. For 2022 as a whole, the Japanese economy is estimated to grow at a rate of 1.6%, while for this year it is projected to grow by 1.8%.

Next in this sub-section, we present recent trends and economic policy challenges in four developing countries and economic regions, which taken together generate almost a third of global GDP.

China's economy recorded an acceleration in its growth rate in the third quarter of 2022, to 3.9%, from 0.4% in the previous quarter and 4.9% a year earlier. The extensive lockdowns due to the zero-COVID policy had a strong negative impact on both industrial activity and domestic demand. However, the Chinese authorities have recently decided to relax their COVID-19 policy following waves of demonstrations due to people's fatigue. Overall for 2022, it is estimated to grow by 3.3% and accelerate to 4.6% in 2023.

India's economy recorded 5.7% growth in the third quarter of 2022, from 14% growth in the previous quarter and growth of 7.8% a year ago. High prices and rising interest rates have a negative impact on demand at home, while the decline in global demand has a negative impact on exports. Growth of 6.6% is estimated for 2022 as a whole, while growth of 5.7% is forecast for 2023.

Türkiye's economy recorded a growth rate of 4% year-on-year in the third quarter of 2022, down from 6.9% in the previous quarter, compared with growth of 8.7% a year ago. The annual inflation rate declined to 64.27% in December 2022, while the exchange rate of the Turkish lira declined at a slower pace (an annual increase of 43% and 36.52% against the dollar and the euro, respectively, compared with the Turkish lira in December 2022). The country's central bank has successively reduced its base rate by 500 basis points from August to December 2022, to 9%. For 2022 as a whole, the Turkish economy is estimated to have grown at a rate of 5.3%, while growth of 3% is projected for 2023.

Among Latin American countries, Brazil's economy grew by 3.6% in the third quarter of 2022, down from 3.7% in the previous quarter and 4.5% in the corresponding quarter of 2021. For 2022 as a whole, GDP growth is estimated at 2.8%, while growth of 1.2% is projected for 2023.

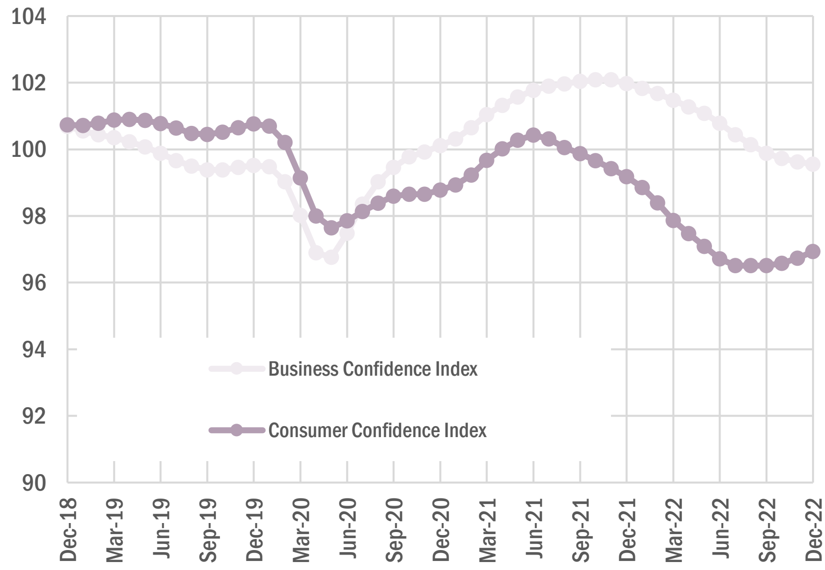
The OECD Business Confidence Index has been on a downward trajectory since December 2021, falling below the long-term average since September. The Consumer Confidence Index has shown weak improvement since October 2022; however, it is still far from the long-term average (Figure 2.1).

Figure 2.1

Economic sentiment indicators for the OECD countries

(seasonally adjusted data, long-term average = 100)

Global consumer confidence index improves, while business confidence continues to decline



Source: OECD

B. The economies of the EU and the Euro area

- Russia's invasion of Ukraine, the economic impact of sanctions on energy adequacy, inflation, and growth, are the most important policy challenges in the EU.
- A possible need for additional fiscal and monetary measures at the collective level, in addition to those already taken to deal with the consequences of the war.
- Positive annual growth rate of real GDP in the EU and the euro area in the second quarter of 2022, by 2.4 % and 2.2 % respectively.
- Lower growth and higher inflation are now expected for 2022 and a further slowdown in 2023.
- A halt to the ECB's expansionary monetary policy for almost 12 years, with a gradual increase in key interest rates that is expected to continue.

Since the start of the war in Ukraine in February 2022, a new socio-economic crisis has begun in Europe, with very strong humanitarian consequences, the displacement of millions of people from their homes, and an impact on people's lives, especially in neighbouring countries. The war also has many significant economic consequences. For Europe, it is mainly related to its energy dependency on Russia. Before the outbreak of the war, a tendency to return to normality had begun to be felt, with the gradual lifting of various restrictive measures in many countries. Moreover, the projections for the EU economy before the outbreak of the war contributed to the start of a strong expansion phase, notably through the implementation of the Recovery Fund. In terms of economic policy, one-off monetary and fiscal measures taken in response to the pandemic were expected to be phased out.

The pandemic had a strong impact in 2020-2021 on demand, supply chains, labour supply, industrial production, prices, trade, and capital flows. The impact of the health crisis was exacerbated by the fact that at the onset of the pandemic, the European economy was relatively vulnerable to external shocks, as it had already slowed significantly in 2019, mainly due to some structural problems in sectors of its industry. Global supply constraints linked to disruptions to the functioning of economies due to the pandemic and the recovery in demand last year have led to inflation rising but, before the start of the war, it was expected to start correcting towards the end of the year. Economic activity would have been supported by a stronger labour market, large accumulated savings, favourable financing conditions and the scalable implementation of the Recovery and Resilience Facility (RRF).

To mitigate the impact of the health crisis, the European Commission implemented policy, monetary and fiscal interventions. The most important of these are the European recovery fund (NextGenerationEU), with a budget of EUR 1.85 trillion, and the reinforced EU budget for 2021-2027, close to EUR 1.05 trillion.

But the war has drastically changed the international environment, bringing new disruptions to global supply, fuelling further pressure on commodity prices, and re-invigorating uncertainty. In particular, Russia and Ukraine are major producers and exporters of certain basic foodstuffs, some minerals, and energy products. Especially in terms of natural gas, 40% of its consumption in Western Europe comes from Russia. Coupled with past rigidities in production and international trade due to containment measures in response to the pandemic, Europe is leading to a new economic, energy, and perhaps food crisis for some of its poorest economies, with gas, oil and grain prices reaching very high levels. Current trends in the European economy will depend mainly on the evolution of the war and, secondarily, on the emergence of SARS CoV-2 mutations, with a strong spread among the population, which could exacerbate the health conditions.

Two of the most important problems the EU now faces are the energy crisis and the rapid rise in inflation. The EU is facing the consequences of a serious mismatch between energy demand and supply, due to the constraints stemming from the war. The European Commission has taken a number of measures to address this crucial issue such as the obligation to reduce peak electricity demand by 5%, the target to reduce gas demand by 15%, and to up the level of gas storage in the EU to 92%. The excessively high increase in energy and food prices, demand-side pressures stemming from the relaunch of the economy after the expiry of the containment measures, and supply rigidities contribute to a sustained rise in inflation. As current inflation factors weaken over time and monetary policy interventions are passed on to the economy and to the price level, inflation is expected to decline.

In particular, as regards the trend in economic activity in the third quarter of 2022 in the European Union and the euro area, growth slowed from the previous quarter to 2.4% and 2.2%, from 4.3% and 4.2% respectively, against a recovery of 4.2% and 3.9% in the EU and EA respectively one year earlier. According to the European Commission's recent forecast, growth in the euro area is estimated at 3.2% for 2022, while for 2023 there is near stability of 0.3%, similarly for the European Union growth in 2022 is estimated at 3.3% and 0.3% for this year.

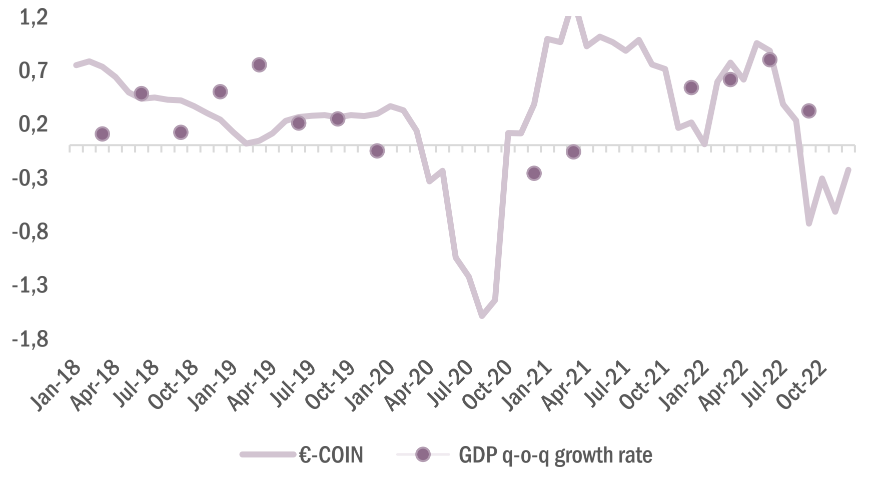
Growth in the economies of the European Union in July-September 2022 was driven by stronger domestic demand, with investment contributing 2.3% of GDP growth, more than in the previous quarter (1.4%). The contribution of consumption grew to 0.8%, compared with a higher contribution in the second quarter of 2022 of 2.7 pps. of GDP. The impact of net exports on GDP change in the third quarter of 2022 was negative, by -0.9%, from zero in the previous quarter. The trends in the structure of growth in the euro area economies are similar, with domestic demand being the major growth factor (3.3 pps. from 4.2 pps. in the second quarter of last year). There was also a positive year-on-year contribution from investment (2.3% of GDP), at a higher rate than in the previous quarter (1.2% of GDP), while consumption had a positive contribution, 0.9 pps., against a higher impact of 2.8 pps. in the second quarter. In addition, in that quarter, net exports to the euro area had a negative contribution of -1.1%, against no contribution a quarter earlier.

The structure of GDP components on the expenditure side remains similar in the EU-27 and the euro area, with private consumption accounting for 52.6% of GDP in both zones, investment accounting for 23.8% and 23.2% of GDP, exports 54.7% and 53.3% of GDP and imports 52.4% and 50.8% of GDP.

The growth (annual changes in seasonally adjusted data) in the third quarter of the year was strongest among the EU countries in Ireland, where the relative rate reached 10.6%. Next came Croatia (5.5%), Cyprus (5.4%), and Malta (5.2%). The countries experiencing recession included Estonia (2.3%) and Latvia (0.4%). In terms of the 12-month rolling rate, Greece showed a positive growth rate of 6.6%, well above the average rate in both the EU and EA (4.4% and 4.2%). The country with the lowest 12-month growth was Slovakia (1.7%), followed by Estonia (2.4%). By contrast, the country with the largest positive 12-month rolling growth rate in the EU was Ireland followed by Malta (9.1%) and Croatia (8.5%).

Figure 2.2

Monthly €-COIN Index & Eurozone GDP*



Vertical drop in the EUR-COIN index in the third quarter of this year, to -0.39 points, from -0.04 points a quarter ago

* The Research Centre of Economic Policy Research in collaboration with the Bank of Italy estimates every month the leading indicator of economic activity €-COIN for the Eurozone. The indicator is a forecast of quarterly GDP growth and is derived from the synthesis of a variety of different data, such as the evolution of industrial production, prices, labour market data, as well as financial data. Source**:** CEPR and Bank of Italy.

In terms of trends in economic sentiment and key leading indicators of economic activity in the euro area and the European Union, the EUR-COIN index fell significantly in the fourth quarter of this year to -0.39 points (Figure 2.2). In particular, the monthly performance of December 2022 was negative at 0.23 points, diametrically opposed to last December (0.21), pointing to expectations of a decline in GDP.

The European Commission's economic climate index in the EU-27 and the euro area declined in October-December last year compared with the previous quarter, by 2.6 and 2.4 points respectively, while against the same period last year, it declined by 22.3 and 21.6 points. In particular, the index stood at 92.8 and 94.3 points. In December last year, the economic sentiment index stood at 94.2 points in the EU-27 and 95.8 points in the euro area, down from the previous month. That said, it stood at 19.8 and 18.5 points lower than a year ago in the EU-27 and EA respectively (Table 2.2).

Among the EU's largest economies, in France in the fourth quarter this year, the index declined from the previous quarter, while compared with the fourth quarter of 2021 it stood 19.2 points lower. A decrease compared with the third quarter of the previous year was observed in Germany by 3.4 points, which was smaller than in the fourth quarter of 2021 (21.2). In Italy, the index decreased by 0.6 points compared with the previous quarter and by 18.7 points compared with the same quarter of the previous year. Finally, in the period from October to December 2022, the economic climate index in Greece decreased by 1.2 points compared to the previous quarter, to 101.4 points, which is about 10.7 points lower than a year earlier (112.1 points).

More comprehensive information on the changes in the GDP components of the euro area and the EU and other macroeconomic variables in the fourth quarter of 2022, as well as on their estimated trends for the coming period, is provided next in this sub-section.

Table 2.2

Economic Sentiment Indicator EU-27 & Euro Area (av. 2000-2020=100)

Month	Jan - 21	Feb - 21	Mar - 21	Apr-21	May - 21	June - 21	Jul-21	Aug-21	Sep-21	Oct - 21	Nov - 21	Dec - 21
EU-27 (2020)	91,1	93,1	99,9	108,8	112,8	115,8	116,6	115,3	115,3	116,2	115,2	114
Euro area	91,5	93,4	100,9	109,4	113,4	116,7	117,6	116,3	116,4	117,2	116,2	114,3

Month	Jan - 22	Feb - 22	Mar - 22	Apr-22	May - 22	June - 22	Jul-22	Aug-22	Sep-22	Oct - 22	Nov - 22	Dec - 22
EU-27 (2020)	112,6	113,3	105,7	103,8	103,2	101,5	97,2	96,3	92,9	91,6	92,7	94,2
Euro area	113,1	114,1	106,1	104,4	104,4	103,3	98,7	97,5	93,9	93	94	95,8

Source: European Commission (DG ECFIN), December 2022

Forecasts for 2022-2023, as reported for the EU and the euro area, are presented in the European Commission's most recent forecast report (Table 2.3). A summary of key macroeconomic variables by country member of the euro area is presented in the Annex.

Table 2.3

Key macroeconomic figures, EU-27 and the Euro area (annual % change in real terms, unless indicated otherwise)

	EU			Eurozone		
	2022	2023	2024	2022	2023	2024
GDP	3,3	0,3	1,6	3,2	0,3	1,5
Private Consumption	3,7	0,1	1,5	3,7	0,1	1,5
Public Consumption	1,3	0,3	0,8	1,4	0,3	0,8
Gross Investment	3	0,5	2,3	2,8	0,5	2,3
Exports of Goods and Services	6,3	2,1	3,6	6,6	2	3,4
Imports of Goods and Services	6,7	1,9	3,5	6,8	1,9	3,5
Employment	1,8	0	0,4	1,8	0,1	0,5
Unemployment (% labour force)	6,2	6,5	6,4	6,8	7,2	7
Inflation	9,3	7	3	8,5	6,1	2,6
Balance of General Government (% GDP)	-3,4	-3,6	-3,2	-3,5	-3,7	-3,3
Debt of General Government (% GDP)	86	84,9	84,1	93,6	92,3	91,4
Current Account Balance (% GDP)	1,1	1,4	1,9	1,5	1,9	2,4

Source: European Economic Forecasts, Autumn 2022, European Commission, November 2022

In detail, according to Eurostat data for the third quarter of 2022 (annual changes in seasonally adjusted data), private consumption in the European Union increased by 1.6%, when in the previous quarter it had increased by 5.3%, while in the same period of 2021 the trend was also positive (3.5%). In the euro area, household consumption increased by 1.7%, from a higher increase of 5.4% in the previous quarter, while a year earlier it was growing by 2.9%. The European Commission forecast last May that household consumption in the EU as a whole would increase by 3.3% and remain almost stable in 2023 at 0.3%. For the euro area, it predicted a 3.7% increase in private consumption in 2022 and a minimum expansion of 0.1 % in 2023 (Table 2.3). At the country level, in Germany, private consumption was 2.0% higher in the third quarter of last year, while in the previous quarter, it had increased by 6.0%, while in France there was a slight slowdown (0.3%). In Italy, it increased by 3.6%, a smaller increase compared to a quarter earlier (5.2%), while in Spain it grew by 1.3% when in the previous quarter its increase had reached 3.3 %. In Greece, private consumption rose 6.2%, from an increase of 8.9 % in the previous quarter, while in the same period of 2021, it had increased by 7.1%.

Public consumption increased in the EU and the euro area in the third quarter of 2022 by 0.5% and 0.4% respectively, from 0.6% and 0.7% a quarter ago. In the same quarter of 2021, public consumption had increased by 2.9% in the EU and in the euro area. For 2022, the European Commission expected a sharp slowdown in EU public consumption growth in November compared to 2021, to 1.3%. Similar growth was projected for the euro area (1.4 %). In 2023, its growth will weaken to 0.3 % in both the EU and EA.

Investment increased in the period from July to September 2022 in the EU by 10.3%, a larger expansion than in the previous quarter (6.3%). Similarly in the euro area, the rise was 10.6%, compared with 5.6% in the second quarter of last year. In the same quarter of 2021, investment had increased by 7.5% in the EU and 6.1% in the euro area. The European Commission forecast an increase of 3.0% for 2022 and 0.5% for 2023 in the EU, with 2.8% and 0.5% projected in the euro area. In the third quarter of 2022, investment increased by 5.2% in Germany, following a smaller increase of 2.7% in the previous quarter, while Italy recorded a sharp increase of 13.4%, but against a similar increase of 14.0% in the quarter of April-June 2022. The rate of change in investment in France was positive, 8.6%, up from 2.7% in the previous quarter.

Significant growth was recorded in the exports of goods and services in the EU (8.0%), and in the euro area (7.7%), against a similar increase of 7.7% and 7.9% respectively in the previous quarter and stronger growth in the third quarter of 2021 (9.9% and 10.5%). For 2022, the European Commission forecast an increase in exports in the EU-27 by 6.3% and a smaller increase in the following year of 2.1%. For the euro area, it expected a 6.6% growth for 2022 as a whole and an increase of 2.0% in 2023. At the country level, Germany saw export growth in the second quarter of 2022 of 5.1%, up from an increase of 2.3% in the second quarter of the year. The increase in exports in France in the second quarter of this year was 8.2%, a similar growth to that recorded in the previous quarter. Italy saw an increase of 8.3%, from a higher increase, of 11.3%, a quarter earlier. A strong export expansion was recorded in Spain, by 18.8%, after a stronger increase of 23.7% in the previous quarter, as in Cyprus (11.5%), following an increase of 29.8% in the third quarter of 2021.

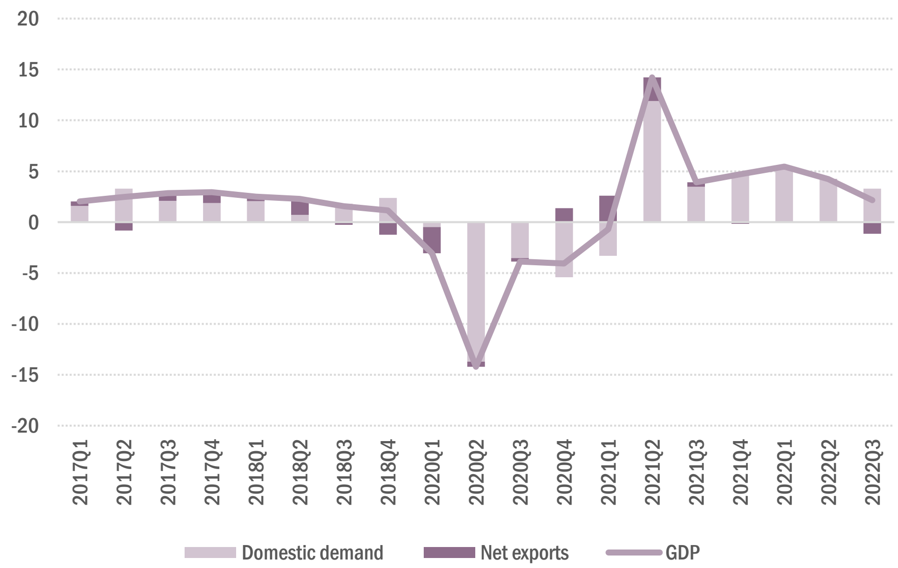
For another quarter, import growth was strong in the third quarter of 2022 in the EU, at 10.3%, higher than a quarter earlier (8.2%). A similar change was observed in the EA, by 10.8%, from an increase of 8.4% in the previous quarter of 2022. A year earlier, there was an increase of 10.5% and 10.3% respectively. For the years 2022 and 2023, the European Commission has forecast an increase of 6.7% and 1.9% respectively for the EU. For the euro area, it expects growth in 2022 by 6.8% and growth of 1.9% in 2023. At the country level, in the third quarter of 2022, imports in Spain increased by 9.0%, compared with a similar increase of 8.7% in the previous quarter. France expanded by 11.5%, from a reinforcement of 8.7% a quarter ago, while in Italy there was a 15.9% increase from 15.2% in the preceding quarter. A significant positive pace was recorded in Germany (8.6%), from a smaller strengthening in the second quarter of 2022 (7.2%).

Based on developments in the GDP components in the euro area (Figure 2.3), the contribution of net exports was negative (-1.1%), compared with no contribution in the previous quarter. The negative contribution of net exports in the third quarter last year was driven by the stability of the export contribution, from 4.0% in the second quarter to 3.9%, together with an increased negative impact of imports, from 4.0% in the second quarter to 5.0% in the following quarter. As already mentioned, the contribution of domestic demand stood at 3.3% of GDP, from a positive impact of 4.2 percentage points in the previous quarter. The bulk of the contribution came mainly from investment, which had a positive effect in the third quarter of 2022 by 2.3% of GDP, while in the second quarter, its positive contribution was 1.2 pps.

Figure 2.3

Eurozone GDP change – Contribution of components to the real annual rate of change (in percentage points)

Negative contribution of net exports to the change in euro area GDP in the third quarter of 2022. Positive impact of domestic demand, while investment strengthened year on year.



Source: Eurostat

Harmonised inflation increased in the third quarter of 2022 in the EU and the euro area, recording rates of 10.1% and 8.9%, from 8.9% and 8.1% respectively one quarter earlier. In the third quarter of 2021, harmonised inflation was 3.1% in the EU and 3.2% in EA respectively. Overall for 2022, the European Commission has recently predicted (November 2022) that inflation will rise sharply in EA to 8.5% from 2.6% and in the EU to 9.3% from 2.9%, while in 2023 it will fall to 6.1% and 7.0% respectively.

Employment gains were milder in the third quarter of 2022, by 1.5% in the EU and 1.7% in the EA, up from 2.3% and 2.6% in the EU and EA respectively one quarter earlier, while in the same period of 2021, jobs increased by 2.4% in both zones. The European Commission forecasts growth (1.8%) and stagnation of job creation in the EU for 2022 and 2023. For the euro area, it also forecast employment growth this year, by 1.8%, and near stagnation (0.1%) in 2023. Employment growth in the third quarter of 2022 was mainly recorded in Lithuania (5.5%), Estonia (3.7%), Ireland (3.4%), and Luxembourg (3.4%). There was a decrease in Romania (-0.1%) while the lowest employment growth was recorded in Bulgaria (1.0%) and Germany (1.1%).

Unemployment in the third quarter of 2022 remained stable compared to the second quarter, at 6.1% in the EU and 6.7% in the euro area. In the third quarter of last year, it stood at 6.8% in the EU and 7.5% in the EA. For 2022, the European Commission has estimated a decline in unemployment rates in the EU-27 and the euro area compared to the previous year, to 6.2% and 6.8%, while for 2023 it expects unemployment rates of 6.5% and 7.2%. In July-September 2022, the highest unemployment rate was recorded in Spain (12.5%), followed by Greece (12.4%) and Italy (8.3%), while in Croatia unemployment was 7.4%.

In the area of fiscal performance, the general government deficit in the EU-27 in the second quarter of 2022 stood at 1.4% of GDP, while in the first quarter, it stood at 3.3%. The European Commission has forecast that the budget deficit will stand at 3.4% and 3.6% of GDP respectively in 2022 and 2023. The average euro area fiscal deficit is expected to reach 3.5% of GDP in 2022 and 3.7% in 2023. Public debt stood in the euro area countries in the second quarter of last year at 94.2 % of GDP, while the average is expected to stand at 93.6% in 2022 and fall to 92.3% of GDP in the following year. Government debt, as a percentage of GDP, declined in the second quarter of 2022 in many member countries, with the highest level recorded in Greece (182.1%), Italy (150.2%), Portugal (123.4%), Spain (116.1%), and France (113.1%).

As regards the monetary policy framework, according to the ECB's communication of 15 December 2022, the ECB increased the three key interest rates by 50 points on the basis of revised inflation expectations. In addition, it is expected to raise interest rates further with a view to ensuring a timely return to the ECB's medium-term objective of 2.0%. From March 2023, the portfolio of the asset purchase programme (APP) will gradually decline, with an average of EUR 15 billion per month until the end of the second quarter of 2023, as the amounts from maturing securities are not reinvested. For the PEPP, the ECB will reinvest the principal amounts from the redemption of securities acquired under the programme at maturity until at least the end of 2024. In any case, the future roll-off of the PEPP portfolio will be regulated in such a way that it is in line with monetary policy. Finally, the Transmission Protection Instrument (TPI) is available to offset undesirable, disorderly market developments that may negatively affect the transmission of monetary policy in the euro area, with a view to price stability.

In brief, the economy in Europe, and in the euro area in particular, is currently facing a number of challenges. The main ones are:

● Russia's invasion of Ukraine and its economic consequences of high intensity and duration. The war has caused strong upheavals in the markets of commodities (e.g., cereals), minerals, and energy products, with oil, gas, and wheat prices remaining at very high levels.

● Recent forecasts by international organisations for the euro area economy expect marginal growth for 2023 – with a risk of recession – and inflation significantly above the target over a three-year horizon.

● The energy crisis and the need for multilateral interventions to ensure energy security and to support demand.

● The pharmaceutical crisis and shortages of antibiotics and other medicines.

● The need for coordination of fiscal and monetary policies at the collective and national levels in order to strike a balance between the objective of containing inflation expectations and avoiding an economic downturn.

● Opportunity from the public consultation on the revision of the EU fiscal rules framework.

2.2 The Economic Environment in Greece

A. Economic Sentiment

- Mild decline in the Economic Sentiment Indicator in Greece in the fourth quarter of 2022 compared with the immediately preceding quarter (101.4 from 102.6.). Noticeable decline compared to the same quarter of last year (112.7 points).
- Business confidence declined in the recent quarter compared with the previous one in Industry and Services, while it increased significantly in retail trade and to a lesser degree in manufacturing.
- The Consumer Confidence Indicator improved marginally in October-December compared with the previous quarter, to -52.6 (from – 53.6) points. At the same time, it is significantly lower than a year earlier (-38.8 points).

The IOBE business and consumer surveys offer significant indications on the developments of the economy in the past few months, from the perspective of both the enterprises and the consumers. In addition, the indicators used in the surveys constitute leading indicators for various economic variables and can be used to predict near-term developments and even the course of GDP.[1]

In the last quarter of 2022, the Economic Sentiment Indicator declined compared with the immediately preceding quarter, by 1.2 points. The deterioration stemmed from a decline in business confidence in Services and Industry, while expectations in Construction and Retail trade strengthened. At the same time, the Consumer Confidence Indicator stood marginally higher than in the previous quarter, at -52.6 (from -53.6 points).

Expectations in the industry and construction sectors systematically weakened in 2022 from rising prices of energy and other raw materials due to the war in Ukraine, as well as from difficulties in the operation of international supply chains. In the services sector, by contrast, the strong dynamics of international tourism had a positive effect on expectations during most of last year, aided by the prolonged summer, especially in the last quarter of the year. At the beginning of 2023, business confidence appears to be at a turning point, with mixed trends and fluctuations by sector. On the household side, it appears in early 2023 that two opposing forces influence the evolution of consumer confidence. The impact of rising costs of living concerns households about their financial situation in the short term, but this is partly offset by successive packages of interventions to support the most vulnerable households.

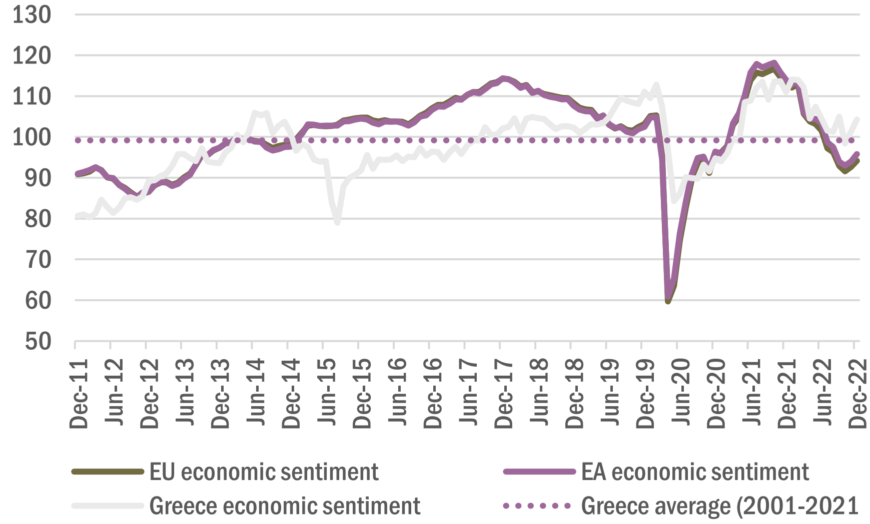
In detail, the Economic Sentiment Indicator in Greece in the October-December quarter mildly weakened compared to the previous quarter (Figure 2.4), to 101.4 from 102.6 points, while it fluctuated significantly lower than last year's average (112.7 points).

In Europe, the corresponding average index stood slightly lower in the period under review than in the previous one, both in the EU and in the euro area. In particular, the Economic Sentiment Indicator stood at 92.8 (up from 95.5 points) in the final quarter of last year in the EU, and 94.3 (up from 96.7 points) in the euro area.

Figure 2.4

[1] Note that since March 2018, the base period of the series presented in the sectoral business sentiment indicators, i.e., the indicators in Manufacturing, Retail Trade, Services and Construction, has changed. In particular, the 2000-2010 period was designated as a new base (= 100). Until February 2018, the indicator was referenced to average values from the 1996-2006 period. The historical series of the indicators are fully revised, in order to ensure that the data series are comparable. As a result, the indicators with the new base period are overall higher compared with those with the older base period. The change in the base period by IOBE has not affected the overall economic sentiment indicator for Greece or any other country.

Economic Sentiment Indicators: EU-27, Euro area and Greece (2000-2020=100, seasonally adjusted data)



The Economic Sentiment Indicator in Greece in the October-December quarter weakened quarter on quarter by 1.2 points.

S ... ssion, DG ECFIN

A ... business confidence in Greece declined in Industry and Services, while it s... tly in retail trade and to a lesser extent in manufacturing. On the consumer side, th... nce Indicator strengthened marginally against the previous quarter. Compared w... last year, average indices weakened significantly in Retail trade, while they d... struction and Services. In more detail:

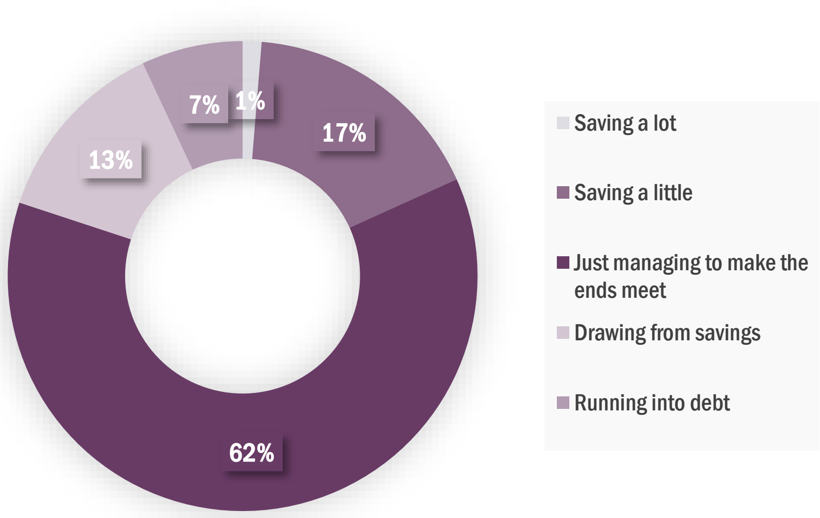
The Consumer Confidence Indicator in Greece in the quarter of October-December last year was marginally lower than in the third quarter of 2022, at -52.6 from -53.6 points, much lower than last year's (-38.8 points). The corresponding average index improved marginally in the EU, to -26.3 (from -27.6 points), and mildly in the euro area (-24.5 from -26.9 points). These levels are much lower than those recorded a year ago (-9.5 and -7.6 units respectively).

The quarter-on-quarter trends in the individual key response balances that make up the overall indicator were mainly positive in the fourth quarter of 2022. The pessimistic expectations of consumers in Greece for the financial situation of their households over the next 12 months eased slightly, as did those for the economic situation of the country. At the same time, households' assessment of their current situation deteriorated marginally, while the intention for major purchases in the coming period deteriorated slightly.

In particular, the percentage of those who were pessimistic about the financial situation of their household in the next 12 months declined mildly, to 64% (from 67% in the previous quarter), while the percentage of those who say the opposite declined to 3% (from 4%). At the same time, the percentage of consumers in Greece who hold pessimistic expectations about the country's economic situation fell to 70% (from 76%), with 8% expecting an improvement. In terms of the intention to save, the percentage of households that do not assess savings as likely in the next 12 months increased to 87% (from 85%), while the percentage of those who consider it to be likely fell marginally to 13%. In unemployment expectations, the percentage of those who believe the situation would deteriorate decreased to 56% (from 59%), with 11% (from 12%) on average expressing the opposite view. The proportion of consumers reporting that they were 'running into debt' remained at 7% in the fourth quarter of 2022, slightly higher than in the same quarter of 2021 (5%). The proportion of respondents saying that they were saving a little also marginally weakened, to 17% (from 19% in the same quarter of 2021). Finally, the percentage of those reporting that they were "just making ends meet" weakened mildly to 62%, and the proportion of households reporting that they were saving a lot increased significantly to 13% (from 9%), with the corresponding figure for 2021 standing at 9% (Figure 2.5).

Figure 2.5

Consumer survey data on the financial situation of households (October-December 2022)



Source: IOBE

A decline compared to the third quarter of 2022 in the percentage stating that they were just making ends meet (62%). The percentage of those reporting that they were running into debt remained unchanged.

The business confidence indicator in Industry stood at 97.3 points in the last qu n
99.6 in the third quarter of 2022), significantly lower than in 2021 (110.7 points e
expectations for short-term output developments declined slightly in the quarte 3
points in the third quarter of 2022 and stood on average at +5.1 points. At the e
estimates for the level of orders and demand intensified (to -10.3 from -7.4 f
stocks of finished products suggest a slight de-escalation (to +12.7 from +13.8 s
in export indicators are mainly negative: the expectations for export dynar r
weakened mildly (+10.1 from +12.3 points), while the current assessment r
moved marginally up (to +12.6 from +11.2 points), with the assessment for or d
falling sharply (-9.5 from +1.2 points). In the employment expectations, the r y
balance remained almost unchanged, at +1.1 (up from +0.8) points on averag n
rate fluctuated slightly higher, at 76.0% (from 73.9%), as did the months of ass ,
which increased slightly, to 4.9 (from 4.5 months on average).

The retail trade confidence index in the quarter under review was significantly higher quarter on quarter, at 104.7 points (from 88.3), slightly lower than in the same quarter of last year (110.7 points). Of the key variables of the index, the average balance for current sales improved significantly to +14 (from -12) points. Of the companies in the sector, 26% (up from 39%) stated that their sales fell, with 40% (from 26%) reporting the opposite trend. In terms of projected sales, the index increased strongly from -11 to +12 points, with inventories escalating mildly (to -9 points). From the rest of the activity data, the balance of expectations for supplier orders moved marginally up to -8 points (from -9 points), while at the same time, in terms of employment in the sector, the average balance of expectations moved strongly up, to + 20 (from + 1). Finally, in terms of prices, the corresponding balance remained at strong inflationary levels (+62 from +61 points), with none of the firms expressing expectations of price fall and 62% (down from 64%) expecting the opposite result. Business confidence improved in the last quarter of 2022 across all sectors under review except for household equipment and textiles-clothing-footwear, where there was a significant decline.

Business confidence in Construction strengthened significantly in the last quarter of 2022, with the relative balance standing at 106.2 points on average, from 95.2 points in the previous quarter, the second largest among the main sectors of activity. This performance is at a markedly lower level than in the corresponding quarter of 2021 (137.2 points). In the key variables, employment expectations for the sector strengthened significantly, with the relative balance moving from -8 points to +18 points, and 44% (from 30%) of enterprises expecting more jobs, when 26% (from 38%) were expecting a decrease. The negative expectations for planned works deteriorated further (to -68 from -58 points), while the assessment for the current level of work declined significantly (to -11 from + 24 points).

The months of secured activity of firms in the sector strengthened significantly, to 11.0, while the balance in price expectations moved strongly up to +44 (from + 23) points, with 8% of the firms expecting them to decline in the short term and 52% (from 31%) expecting an increase. Finally, the percentage of enterprises reporting that they did not face obstacles to their operation increased to 19% (from 9 %), while among the other enterprises, 21% (up from 42%) reported as main obstacles labour shortages, 28% (from 14%) low demand, 17% (up from 25%) insufficient funding, and only 6% factors such as the general economic situation of the country, high prices of raw materials, lack of projects, delayed payments by the state, etc. At the sectoral level, business expectations moved mildly up in the private construction sector, while in the public works, they increased strongly.

The business confidence indicator in services in the quarter under review was notably lower than in the previous quarter, at 101.1 points (down from 112.3), which was also lower than in the same quarter of 2021 (125.4 points). Of the key variables, estimates of current demand weakened mildly, with the relative indicator declining by 3 points on average to +24 points. The estimates for the current situation of the company also moved sharply (+27 from +42 points on average), with the balance in the expectations for short-term demand of the sector declining markedly (+2 from +24 points). From the rest of the activity data, a noticeable decline was recorded in the respondents' employment expectations, which weakened by 17 points, to +1 point, while the average indicator of firms' price expectations declined slightly to +20 (from +25) points. Finally, the proportion of respondents reporting an unhindered business operation declined significantly to 26% (from 37%) on average, with 24% declaring as the main obstacle to their operation insufficient demand, 9% labour shortage, 11% working capital shortage, and 27% (from 22%) other factors linked to the general economic situation, energy prices, war in Ukraine, etc. From the services sectors under consideration, the sub-indices declined slightly in the last quarter of 2022 in financial intermediaries, various business activities, and in land transport, more strongly in hotel-restaurants-tourism, while by contrast there was a strong improvement in IT services.

Table 2.4

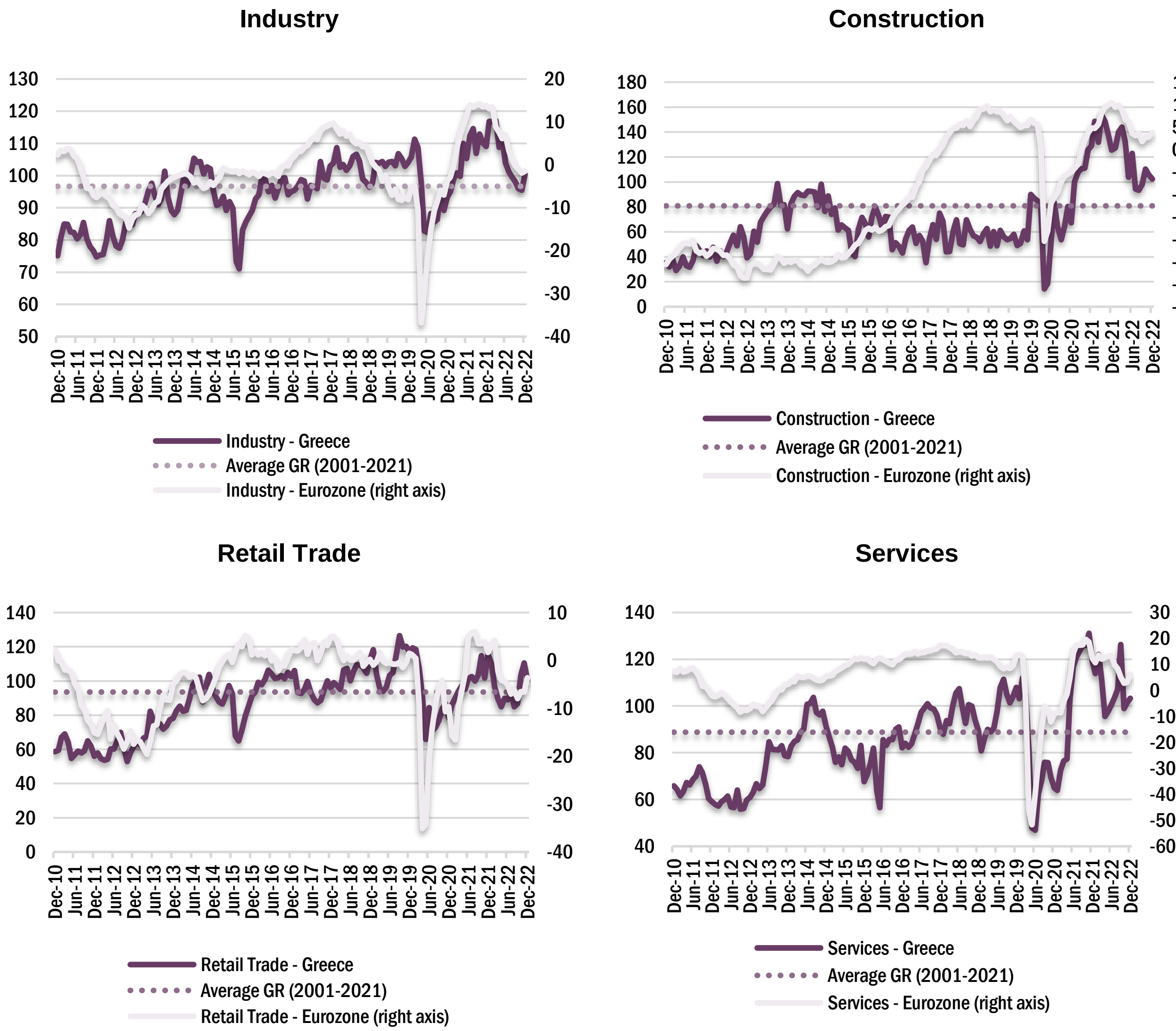
Economic Sentiment Indicators

Time Period	Economic Sentiment Indicator			Business Expectations Index (Greece)				Consumer Confidence Index (Greece)
	EU-27	Eurozone	Greece	Industry	Construction	Retail Trade	Services	
2010	98.6	98.3	85.5	79.9	52.2	61.3	68.1	-57.9
2011	98.3	98.4	83.9	81.1	37.7	60.9	66.1	-69.8
2012	89.0	89.0	83.6	81.4	47.5	59.1	58.8	-73.8
2013	91.9	91.8	93.6	92.6	71.5	72.6	75.3	-69.7
2014	98.6	98.3	101.7	99.7	88.4	92.3	93.3	-53.0
2015	102.9	102.8	91.6	86.3	62.0	83.9	78.2	-51.6
2016	104.4	104.1	95.0	96.1	61.3	101.4	79.3	-61.3
2017	110.7	110.5	98.5	98.1	55.4	94.6	92.7	-58.0
2018	111.1	110.9	103.3	102.8	58.1	104.5	97.0	-44.1
Q1 2019	106.9	106.5	102.1	101.8	56.7	105.8	85.7	-32.8
Q2 2019	104.3	104.3	103.8	103.8	54.8	97.8	92.6	-30.9
Q3 2019	102.0	101.9	108.7	104.8	52.7	115.5	108.2	-10.6
Q4 2019	102.3	101.7	109.1	104.1	68.1	119.1	104.4	-4.2
Q1 2020	102.0	101.5	109.9	108.6	84.9	115.1	106.5	-14.4
Q2 2020	65.9	67.5	89.1	87.6	28.1	80.3	58.6	-38.3
Q3 2020	88.5	89.8	90.0	86.7	67.0	73.5	68.8	-37.0
Q4 2020	93.9	94.5	93.1	92.6	70.7	83.0	70.0	-40.2
Q1 2021	99.2	99.1	96.5	98.2	106.2	90.2	70.9	-40.7
Q2 2021	109.5	110.6	105.5	105.0	121.9	97.9	99.3	-28.3
Q3 2021	115.8	117.4	111.6	111.3	144.7	102.0	123.4	-33.6
Q4 2021	115.1	115.9	112.6	110.7	137.2	110.7	125.4	-38.8
Q1 2022	110.2	110.9	113.4	116.9	137.2	98.8	115.7	-43.6
Q2 2022	102.8	104.0	105.4	108.0	119.6	87.9	97.9	-53.0
Q3 2022	95.5	96.7	102.6	99.6	95.2	88.3	112.3	-53.6
Q4 2022	92.8	94.3	101.4	97.3	106.2	104.8	101.2	-52.6

Sources: European Commission, DG ECFIN, IOBE

Figure 2.6

Business Confidence Indicators



Source: IOBE

Business expectations deteriorated quarter on quarter in the fourth quarter of 2022 in Industry and Services, while they strengthened significantly in retail trade and to a lesser extent in manufacturing.

B. Fiscal developments

- State Budget balance, January-November 2022: a deficit of EUR 5,648 million, implying an over-performance against a deficit target of EUR 6,760 million and a deficit of EUR 12.267 million in the corresponding period of 2021.
- State Budget primary balance, Jan.-November 2022: a deficit of EUR 1.091 million, compared with a primary deficit target of EUR 2,239 million and a primary deficit of EUR 7,882 million over the same period last year.
- The improvement was mainly driven by an increase in net revenue (+ EUR 4.954 million or +10.2%) compared to last year.
- General Government figures 2021 (second notification): deficit of 7.5% of GDP and debt of 194.5%, from 7.4% and 193.3% of GDP in the first notification. A slight deterioration due to the downward revision of GDP. Estimates for 2022 (Budget 2023): deficit of 2.0% of GDP and debt of 168.9% of GDP.
- State Budget 2023: The State Budget balance is projected to improve compared to 2022. A deficit of EUR 7,806 million is expected from a deficit of EUR 11.444 million in 2022. Primary deficit of EUR 806.4 million (0.4% of GDP) from an estimate of EUR 5,444 million (2.6% of GDP) for 2022.
- Prudent fiscal management is crucial for the following years.

General Government figures (national accounting basis)

Final General Government 2021 results

According to the latest[2] fiscal data, compiled using the national accounts methodology (ESA 2010), in 2021 the General Government (GG) recorded a deficit of EUR 13.538 million or 7.5% of GDP. In addition, the GG's primary deficit for the same year reached EUR 9,017 million or 5.0% of GDP (Table 2.5), compared with a primary budget target of EUR 6.591 million or 3.8% of GDP.

Table 2.5

General government balance in national accounting terms (ESA 2010) (% GDP)

	2018	2019	2020	2021	2022[1]		2023
					Initial	Estimate	
General Government balance	0.9	1.1	-9.9	-7.5	-4.0	-4.1	-2.0
GG primary balance	4.3	4.1	-6.9	-5.0	-1.4	-1.6	0.7
GG primary balance (Financial Assistance Facility Agreement/Enhanced Surveillance)	4.2	3.6	-7.9[2]	-1.2[2]	-1.2[2]	-	-
FAFA target	3.5	-	-	-	-	-	-
Enhanced Surveillance target	3.5	3.5	3.5	-	-	-	-
GDP (€ million)	179,558	183,351	165,406	181,675	187,278	210,170	224,134

Sources: ELSTAT press release of 22 October 2022, Budget Introductory Reports 2022 and 2023, Ministry of Finance, November 2021 and 2022

1.Provisional data and estimates 2. Enhanced Supervision Methodology

The under-execution is mainly due to the result of the Central Government, which had a deficit of EUR 14.980 million, compared to an initial provision for a deficit of EUR 12.266 million. The Social Security Funds (SSF) had a better result than expected, achieving a surplus of EUR 1.600 million instead of a target of EUR 754 million, while local authorities had a deficit of EUR 158 million, EUR 154 million above

[2] ELSTAT press release of 21 October 2022

the target. Hospitals also under-performed, reaching a deficit of EUR 350 million compared to a target of a deficit of EUR 4 million. This difference is probably due to the pandemic.

Estimates of the 2022 General Government figures

According to the 2023 Budget Introductory Report, the 2022 result is expected to be in deficit, under the impact of the energy crisis and the outgoing COVID-19 pandemic, by EUR 8.535 million or 4.1% of GDP, compared with an initial forecast of a deficit of EUR 7,416 million or 4.0% of GDP (Table 2.5). The biggest deterioration is estimated to have occurred in the State Budget, as its balance will be negative by EUR 11.444 million, instead of a deficit target of EUR 10.170 million. Local authorities also fall short of the target, with an estimated deficit of EUR 304 million, from a surplus of EUR 60 million in the 2022 budget. Other legal had a surplus of EUR 1720 million instead of a deficit target of EUR 1953 million. Meanwhile, the result of the SSFs is projected to exceed the target by EUR 761 million, to EUR 1721 million.

Public debt

The size and evolution of the GG debt incorporate and reflect the fiscal performance more fully than any other variable. This is because certain transactions of public bodies, within or outside the GG, are not recorded for various reasons in the annual balance of flows but are recorded directly in government debt (stock-flow adjustments). For this reason, monitoring the evolution of the GG debt is necessary in order to have a comprehensive picture of the course of public finances. Moreover, the size and changes in a country's debt are carefully monitored by the investment community and international rating agencies. Negative developments usually adversely affect the country's assessment and cause interest rates to rise.

General government debt increased in 2021 in absolute terms but decreased as a percentage of GDP (Table 2.6). The expansion of public debt was mainly driven by the general government deficit, with a deficit of EUR 13.538 million and a primary deficit of EUR 9,017 million, as mentioned above. Its decline as a percentage of GDP was driven by significant GDP growth. Greece's public debt as a percentage of GDP (194.5%) was the highest in the EU in 2021, with Italy (150.3%), Portugal (125.5%), and Spain (118.3%) coming next.

Table 2.6

Consolidated General Government Debt (€ million)

	2017	2018	2019	2020	2021	2022*
Debt	317,481	334,721	331,093	341,153	353,434	355,000
% GDP	*179.5*	*186.4*	*180.6*	*206.3*	*194.5*	*168.9*

*Estimate

Sources: Eurostat, ELSTAT, EDP disclosure procedure, October 2022 and Budget Introductory Report 2023, Ministry of Finance, November 2022

The final estimate for 2022 shows a significant improvement in public debt. Despite the increase in absolute terms, strong growth brings debt to lower levels as a percentage of GDP. The fiscal picture was better in 2022 than in 2021 due to the easing of the pandemic crisis and the resulting increase in economic activity, as well as the expiration of support measures taken by the government in 2020-2021.

For 2023, the picture may be even better. A high nominal growth rate and a small increase in debt in absolute terms, resulting in a significant reduction in debt as a percentage of GDP, are projected. Greece's exit from enhanced surveillance also contributes to this result, as the country's main commitments and agreed reforms were implemented. Moreover, the country's debt to the IMF was fully repaid, with the benefit of saving interest expenses, reducing the risk of rising interest rates, and reducing exchange rate risk. In January 2023, a new 10-year government bond was issued, with the interest rate standing at 4.2%.

Execution of the 2022 budget (January – November)

The international energy crisis continues to cause serious shocks to the purchasing power of households and the viability of many businesses. In this context, it was decided by the European Commission to keep active the general escape clause of the Stability and Growth Pact (SGP) also for 2023, as all Member States took measures to address the new crisis.

The net cost of fiscal interventions in response to the energy crisis implemented in 2022 in Greece (taking into account the relevant revenues of the energy transition fund) amounts to EUR 4.8 billion or 2.3% of GDP of which: an amount of EUR 2.5 billion or 1.2% of GDP is covered by the regular budget, while an amount of EUR 8.1 billion or 3.9% of GDP is covered by the fund.[3] Measures include subsidising household and corporate tariffs on electricity and natural gas, retrospective reimbursement of 60% of electricity increase in household tariffs, permanent reduction of Value Added Tax (VAT) on animal feed and fertilisers, prepaid fuel pass to households extended for a total of six months, allowance to vulnerable households (April and December), subsidy for diesel and heating oil, refund of excise duty on motor oil to professional farmers, subsidy to farmers for the increased costs of animal feed and increased heating allowance. Almost a third of these interventions concern vulnerable households.

The “Greece 2.0” plan financed by the European recovery fund is in full swing in 2022, with the inclusion of 440 projects with a total budget of EUR 13.7 billion, while the country has already received EUR 7.53 billion (EUR 4.03 billion in grants and EUR 3.5 billion in loans). The total amount allocated to Greece by 2026 is EUR 30.1 billion (EUR 17.4 billion in grants and EUR 12.73 billion in loans) or 9.7% of GDP.

As long as energy prices remain high, as long as there is fiscal space, measures to support households and businesses will continue, with adjustments and possibly new additions. The burden on the budget balance of support interventions that have already been implemented or announced is high and may increase. This impact is, however, mitigated by higher-than-expected indirect taxation revenues from energy products in the 2022 budget, due to their high prices and stronger economic activity, as shown by the budget implementation data analysed below. In addition, the overall fiscal burden is considerably lower than last year when extensive support measures were taken due to the pandemic. A stronger boost in fiscal revenues is also due to the acceleration of tourist flows in 2022, based on air traffic and arrivals at international airports with foreign flights. More specifically, in June 2022 there was a 0.9% increase in aircraft traffic compared to June 2019 (the last year before the pandemic) and a 0.1% increase in foreign passenger arrivals,[4] despite the war. The boost concerns mainly income from indirect taxes, but also income tax in the sector.

State Budget Balance and Primary Balance

According to the state budget implementation data, on a modified cash basis, for the period January – November 2022, the state budget had a deficit of EUR 5,648 million, against a deficit target of EUR 6,760 million, included for the corresponding period of 2022 in the explanatory report to the 2023 Budget, and a deficit of EUR 12.267 million in the corresponding period of 2021. The primary balance stood at a deficit of EUR 1,091 million, compared with a primary deficit target of EUR 2,239 million and a primary deficit of EUR 7,882 million for the same period in 2021. The improvement in the SB balance compared with last year was mainly due to an increase in net revenue (+10.2% or +EUR 4.96 billion, Table 2.7).

Table 2.7

State Budget execution: January-November 2022* (€ million)

	Jan. – November		% Change 22/21	2021*	2022* Budget	2022 Est.	% Change 22E/21
	2021*	2022*					
I. SB NET REVENUE (1+2)	48,476	53,430	10.2	54,878	57,101	59,853	9.1
1. Net OB revenue	42,398	48,844	15.2	47,999	47,736	53,676	11.8
OB revenue before tax refunds	*46,668*	*54,395*	16.6	*53,102*	55,172	59,669	12.4

[3] The revenue of the fund for 2022 amounts to EUR 5.905 million and is included in the total net fiscal cost of the interventions.
[4] Source: Civil Aviation Authority

Less Tax refunds	4,270	5,551	30.0	5,103	4,957	*5,993*	17.4
2. PIP revenue[5]	6,078	4,586	-24.5	6,879	7,436	6,177	-10.2
II. SB EXPENDITURE (3+4)	*60,743*	*59,078*	-2.7	69,750	67,929	73,253	5.0
3. OB expenditure	52,936	50,255	-5.1	60,749	54,595	61,637	1.5
Primary expenditure OB	48,285	45,662	-5.4	55,876	49,995	56,714	1.5
Interest	4,651	4,593	-1.2	4,873	4,600	4,923	1.0
4. PIP expenditure[6]	7,807	8,823	13.0	9,001	10,999	11,616	29.1
III. SB Deficit (-)/Surplus (+)	*-12,267*	*-5,648*		*-14,872*	-10,827	-13,400	
% of GDP	*-6.8*	*-2.7*		*-8.2*	-5.8	-6.4	
IV. SB Primary Balance	-7,882	-1,091		-10,327	-6,257	-8,506	
% of GDP	-4.3	-0.5		-5.7	-3.3	-4.0	
GDP (in current prices)	181,675	210,170	15.7	181,675	187,278	210,170	15.7

Source: Monthly SB Execution Bulletin November 2022, Ministry of Finance, December 2022, and Budget Introductory Reports 2022 and 2023, Ministry of Finance, November 2021 and November 2022. * On a modified cash basis. According to the new revenue classification in force since 01/01/2019.

Ordinary budget revenue

The net revenue of the state budget amounted to EUR 53.430 million, showing an increase of EUR 288 million or 0.5% compared to the estimate for the corresponding period included in the explanatory report to the 2023 Budget, and by EUR 4.96 billion or 10.2% compared to last year, despite the reduced revenues of the PIP. The total revenue of the state budget amounted to EUR 58.981 million, higher by EUR 478 million or 0.8% against the target.

Most of the categories posted an increase compared to last year. Ordinary Budget revenue increased by 15.2%, while net OB revenue increased by 16.6%, with tax refunds increasing by 30.0%. Income tax revenues increased by 16.6% compared to last year, both by an increase in corporate tax revenues (+38.3%) and by an increase in tax revenues for individuals (+9.7%).

Table 2.8

State Budget Revenue: January-November 2022* (€ million)

	Jan. – November		% Change 22/21	2021*	2022* Budget	2022 Est.	% Change 22E/21
	2021*	2022*					
Net SB revenue	48,476	53,430	10.2	54,878	57,101	59,853	9.1
Net OB revenue	42,398	48,844	15.2	47,999	47,736	53,676	11.8
Tax refunds	46,668	54,395	16.6	*53,102*	55,172	59,669	12.4
OB revenue	4,270	5,551	30.0	5,103	*4,957*	5,993	17.4
Income tax, of which:	13,237	15,436	16.6	14,697	15,683	16,681	13.5
--Personal	9,284	10,186	9.7	10,173	*10,410*	*11,078*	8.9
--Corporate	*2,934*	*4,057*	38.3	3,374	*4,076*	*4,305*	27.6
Property tax	2,348	2,545	8.4	2,652	2,631	2,527	-4.7
Taxes on donations, inheritance etc.	171	200	17.0	198	170	226	14.1
Tariffs	186	298	60.2	305	297	423	38.7
Taxes on goods and services, of which:	24,239	28,986	19.6	26,736	28,462	31,418	17.5
--VAT	*15,933*	*19,828*	24.4	*17,431*	*18,735*	*21,306*	22.2
--Excise duties	*5,996*	*6,344*	5.8	*6,659*	*7,065*	*7,073*	6.2
Other production taxes	960	1,058	10.2	1,086	991	1,281	18.0
Other current taxes	1,699	1,550	-8.8	2,452	2,209	2,579	5.2
Social contributions	50	51	2.0	55	55	55	0.0
Transfers	7,161	5,278	-26.3	8,690	7,377	6,904	-20.6
Sales of goods and services, of which:	552	774	40.2	611	2,104	782	28.0
Other current revenue	*2,047*	*2,687*	31.3	*2,495*	2,067	*2,956*	18.5

[5] The PIP category now includes the flows of the Recovery and Resilience Fund for 2021 and 2022

[6] As above

Sales of fixed assets	4	12	200.0	4	13	13	225.0
PIP Revenue[7]	6,078	4,586	-24.5	6,879	7,436	6,177	-10.2

Source: Monthly SB Execution Bulletin November 2022, Ministry of Finance, December 2022. *On a modified cash basis. According to the new revenue classification in force since 01/01/2019.

Revenue from taxes on goods and services increased by 19.6% since last year, mainly from a 24.4% increase in VAT revenue. Significant increases were recorded in import duties and taxes (+60.2%), sales of goods and services (+40.2%), and other current revenue (+31.3%). Conversely, transfers decreased by 36.1% due to reduced revenues of PIP+RRF (Table 2.8).

Ordinary Budget Expenditure

State Budget expenditure for January-November 2022 amounted to EUR 59.078 million, lower by EUR 823 million compared to the target (EUR 59.901 million) included in the 2023 budget explanatory report, and by EUR 1.66 billion or 2.7% compared to last year. Under the Ordinary Budget, payments are lower both against the target (by EUR 824 million) and compared to last year (-5.1%). This development is mainly due to diverging payments of the procurement programmes of the Ministry of National Defence. The fall in primary expenditure reached 5.4% while the interest expenses declined by 1.2%. Transfers fell by 9.2% compared to last year and subsidies by 13.8%. Purchases of goods & services increased by 6.3% and purchases of fixed assets by 4.7% (Table 2.9). The decline in transfers would have been wider if the exceptional expenditure payments related to interventions in response to the energy crisis had not been made.

As regards the payments related to measures against the pandemic in January-August, the most important were: a) support of small and micro-enterprises affected by COVID-19 in the regions amounting to EUR 160 million from the PIP, b) public sector contribution for the repayment of business loans of affected borrowers of EUR 90 million from the PIP, c) working capital subsidy to tourism enterprises of EUR 42 million from the PIP, d) reinforcement of health institutions with auxiliary staff in the regions amounting to EUR 90 million from the PIP; e) exceptional subsidy of EUR 44 million for entertainment businesses, gyms, dance schools, etc. from the PIP, f) special purpose compensation expense of EUR 158 million paid by the Ministry of Labour and Social Affairs (transfers category), e) additional grants to the NHS of EUR 100 million and to hospitals and regional health authorities of EUR 259 million as well as the purchase of vaccines amounting to EUR 286 million, h) additional grant to DYPA (formerly OAED) of EUR 400 million to cover the loss of revenue due to the reduction of employees' social security contributions and subsidy to e-EFKA of EUR 150 million to cover the loss of revenue from the reduction of the contributions collected for DYPA and i) state compensation of lessees of EUR 58 million due to reduced rents. It should be noted that their total (EUR 1.84 billion) is much smaller than a year ago (EUR 8.88 billion), which is reflected in the widespread decline in transfers and subsidies mentioned above.

Table 2.9

State Budget Expenditure: January-November 2022* (€ million)

	Jan. – November		% Change 22/21	2021*	2022* Budget	2022 Est.	% Change 22E/21
	2021*	2022*					
SB Expenditure (1+2+3)	60,743	59,078	-2.7	69,750	67,929	73,253	5.0
OB Expenditure (1+2)	52,936	50,255	-5.1	60,749	54,595	61,637	1.5
1.Primary OB Expenditure	48,285	45,662	-5.4	55,876	49,995	56,714	1.5
Compensation of employees	12,259	12,418	1.3	4,873	4,600	13,694	181.0
Social benefits	177	189	6.8	9,001	10,999	368	3988.4
Transfers	31,886	28,943	-9.2	37,038	30,583	34,496	-6.9
(of which SSFs)	*18,730*	*18,172*	-3.0	*21,574*	*20,441*	*21,421*	-0.7
Purchase of goods and services	1,481	1,575	6.3	1,992	1,355	2,429	21.9
Subsidies	282	243	-13.8	346	80	419	21.1
Other current expenditure	47	43	-8.5	52	101	91	75.0

[7] The PIP category includes the flows of the Resilience and Recovery Fund for 2021 and 2022.

Non allocated expenditure	0	0	0.0	0	2,923	1,671	-
Purchase of fixed assets	2,150	2,251	4.7	2,672	3,456	3,545	32.7
2. Interest (gross basis)	4,651	4,593	-1.2	4,873	4,600	4,923	1.0
3. PIP Expenditure[8]	7,807	8,823	13.0	9,001	10,999	11,616	29.1

Source: Monthly SB Execution Bulletin November 2022, Ministry of Finance, December 2022.
*On a modified cash basis. According to the new revenue classification valid from 01/01/2019

As regards measures to address the energy crisis, the picture is as follows: a) a grant to OPEKA amounting to EUR 207 million, broken down into the following sub-sectors: EUR 120 million for an exceptional child benefit tranche, EUR 46 million for the payment of the raise in income support for the beneficiaries of the guaranteed minimum income, EUR 33 million for the exceptional financial assistance to persons with disabilities and EUR 7 million for the increase in the pension of uninsured elderly persons, b) a grant to e-EFKA of EUR 135 million for the exceptional financial assistance of vulnerable pensioners, c) a grant to the Information Society for the support of natural persons and freelancers in order to cope with the increase in the cost of fuel (fuel pass) of EUR 302 million and for the aid to cover increased electricity bills (power pass) of EUR 296 million, d) a subsidy to OPEKEPE of EUR 50 million to address the consequences on Greek livestock farming due to international developments, e) special purpose compensation to support taxi drivers and operators amounting to EUR 5 million, f) subsidy for diesel oil of EUR 217 million and g) aid to the Energy Transition Fund by EUR 1.000 million.

Public Investment Programme (PIP)

The revenues of the Public Investment Programme (PIP) and the revenue of the RRF (measured together according to the new categorisation) amounted to EUR 4.586 million, falling by 24.5% compared to last year. However, without taking into account the disbursement of the RRF tranche, the revenues of the PIP amounted to EUR 2.868 million, lower by EUR 75 million from the target (EUR 2943 million) and by 900 million or 23.9% compared to last year. Expenditure amounted to EUR 8.823 million, an increase of 13.0% compared to last year, mainly due to the large increase in RRF expenditure (from EUR 161 million to EUR 1.97 billion). The expenditure of the RRF increased significantly because the execution of many projects under the "Greece 2.0" plan began in early 2022.

2023 Budget

As the war in Ukraine continues, the energy crisis will continue to weigh on businesses and households through inflation and uncertainty. In addition, the growth rates of both Greece and the rest of Europe's economies are deteriorating. The government has already announced its intention to continue taking support measures next year. The measures focus on supporting households due to rising electricity and fuel prices and increasing the purchasing power of workers and pensioners through the abolition of the special solidarity levy and the permanent reduction of social security contributions, among others. Other measures include a new increase in the minimum wage, the settlement of wage demands by the armed forces, significant incentives to expand full employment through the reduction of social security contributions and the freelance levy, the suspension of VAT on new buildings, and the overall framework of measures to support housing. At the TIF, further measures were announced for housing, such as subsidies for house renovations and loans for the purchase of primary residences. Finally, the government intends to take measures to address the demographic problem (e.g., extending the granting of the maternity allowance to the private sector from 6 to 9 months).

The year 2023 will be the first year in which Greece will not be under close fiscal surveillance since the first economic adjustment programme started in 2010. This is expected to attract more investment and bring the country closer to recovering investment grade. In the climate of great uncertainty surrounding the Greek and global economy, prudent fiscal management and compliance with fiscal targets is the passport for access to markets, attracting investment, and ensuring the sustainability of Greek debt, so as to maintain the country's positive economic outlook for the coming years.

[8] The PIP category now includes the flows of the Recovery and Resilience Fund for 2021 and 2022

Balance and primary balance of the State Budget, 2023

In 2023, the State Budget balance is projected to improve relative to 2022 mainly due to the projected growth of the economy. It will result from a 2.9% increase in net revenue and a 2.6% reduction in its expenditure (Table 2.10). Subsequently, the deficit of the SB is expected to stand at EUR 7,806 million or 3.5% of GDP from EUR 11.444 million last year. The primary deficit is expected to stand at EUR 806 million or 0.4% of GDP from EUR 5,444 million or 2.6% of GDP in 2022. The reduction is projected to come from the reduction of the OB deficit because the deficit of the PIP is projected to increase.

Table 2.10

Revenue, Expenditure, and Balance of the State Budget 2023* (in EUR million)

	2022 estimates	2023 budget	% change 23B/22
I. SB Net revenues (1+2)	60,359	62,139	2.9
1. OB Net revenues	55,659	57,573	3.4
Tax refunds	5,993	*6,110*	2.0
OB Revenues	61,652	63,683	3.3
2. PIP and RRF Revenues[9]	4,700	4,566	-2.9
II. SB Expenditure (3+4)	71,802	69,945	-2.6
3. OB Expenditure	60,186	57,983	-3.7
OB Primary expenditure	54,186	50,983	-5.9
Interest expenditure	6,000	7,000	16.7
4. PIP and RRF Expenditure[10]	11,616	11,962	3.0
III. SB Deficit (-)/Surplus (+)	11,444	7,806	
% of GDP	-5.4	*-3.5*	
IV. SB Primary balance	-5,444	-806	
% of GDP	-2.6	*-0.4*	
GDP (in current prices)	210,170	224,134	6.6

* In national accounting terms (ESA 2010)

Source: State Budget Introductory Report 2023, Ministry of Finance, November 2022, Table 3.2

The net revenue of the State Budget is projected to amount to EUR 62,139 million, higher by EUR 1.78 billion, compared with the previous year. The total expenditure of the State Budget for 2023 is projected to amount to EUR 69.945 million, down by EUR 1.86 billion compared to the previous year. The reduction in expenditure is mainly foreseen due to the reduction of the measures envisaged in response to the Covid-19 pandemic and the temporal diversification of physical delivery of military equipment programmes. The primary expenditure of the State Budget is projected to amount to EUR 50,983 million, down by EUR 3.2 billion or 5.9% compared to 2022.

Ordinary Budget Revenue, 2023

An increase is forecast in most revenue sub-categories for 2023. Net OB revenue is expected to increase by 3.4% in 2023 compared to 2022, to EUR 57.573 million (Table 2.11). OB revenue is forecast

[9] The PIP category includes the flows of the Recovery and Resilience Facility for 2021 and 2022.
[10] As above.

to increase by 3.3% but tax refunds are also projected to increase by 2.0%. Income tax revenues are expected to increase by 5.4%, mainly due to higher corporate income (+15.8

Table 2.11

State Budget Revenues 2023* (in million EUR)

	2022 est.	2023 budget	% Change 23B/22
SB Net revenues	60,359	62,139	2.9
OB Net revenues	55,659	57,573	3.4
Tax refunds	5,993	6,110	2.0
OB Revenues	61,652	63,683	3.3
Income taxes *Of which:*	16,855	17,772	5.4
--Personal income taxes	11,152	11,319	1.5
--Corporate income taxes	*4,399*	*5,094*	15.8
Property taxes	2,381	2,380	0.0
Taxes on inheritance. donations. etc.	226	226	0.0
Tariffs and import duties	423	424	0.2
Taxes on products and services *Of which:*	31,532	32,504	3.1
--VAT	*21,409*	*22,198*	3.7
--Excise duties	7,076	7,117	0.6
Other taxes on production	1,198	1,067	-10.9
Other current taxes	2,298	2,375	3.4
Social security contributions	55	55	0.0
Transfers	*8,474*	*6,972*	-17.7
Sales of goods and services	676	837	23.8
Other current revenues	2,218	3,613	62.9
Sales of fixed assets	13	24	84.6
PIP and RRF revenues [11]	4,700	4,566	-2.9

* In national accounting terms (ESA 2010)

Source: State Budget Introductory Report 2023, Ministry of Finance, November 2022, Table 3.2

%). A significant increase is expected in other current revenue (+62.9%), mainly due to a forecast of higher PIP revenues of EUR 1.49 billion, stemming from the positive budgetary contribution of advances from European programmes, and in sales of goods and services (+23.8%). A decrease is expected in transfers (-17.7%), mainly due to lower revenues of the co-financed leg of PIP by EUR 1.62 billion and the lack of provision for revenue from ANFAs, SMPs and EFSF interest due to programme completion, and other production taxes (-10.9%, Table 2.11).

Ordinary Budget Expenditure, 2023

A decrease is foreseen in most expenditure sub-categories for 2023. OB expenditure is projected to decrease by 3.7%, with a decrease in primary expenditure by 5.9%. Transfers are projected to decrease by 6.6% due to the containment of measures against the pandemic and the energy crisis. Purchases of goods and services are projected to decrease by 37.7% and subsidies by 80.9% mainly due to increased subsidies allocated to diesel and heating oil in 2022. A large decrease is also expected in the purchases of fixed assets (-85.9%) due to the time differentiation between 2022 and 2023 of the physical delivery of equipment procurement programmes of the Ministry of National Defence. There was a large increase last year due to the increase in physical deliveries of the Ministry of National Defence’s armaments

[11] The PIP category includes the flows of the Recovery and Resilience Facility for 2021 and 2022.

programmes. An increase is forecast in social benefits (+7.9%), due to an increase in the heating allowance, non-allocated items (+14.2%) and interest (+16.7%, Table 2.12).

Table 2.12

State budget expenditure 2023* (in million €)

	2022 est.	2023 budget	% Change 23B/22
SB expenditure (1+2+3)	71.802	69.945	-2,6
OB expenditure (1+2)	60.186	57.983	-3,7
1.OB primary expenditure	54.186	50.983	-5,9
Compensation of employees	13.690	13.756	0,5
Social benefits	368	397	7,9
Transfers	33.871	31.620	-6,6
(Of which to SSFs)	*21.758*	*21.449*	-1,4
Purchases of goods and services	2.298	1.431	-37,7
Subsidies	419	80	-80,9
Other expenditure	91	81	-11,0
Unallocated funds	13.442	15.351	14,2
Purchases of fixed assets	1.623	229	-85,9
2. Interest (in gross terms)	6.000	7.000	16,7
3. PIP + RRF expenditure[12]	11.616	11.962	3,0

* In national accounting terms (ESA 2010)

Source: State Budget Introductory Report 2023, Ministry of Finance, November 2022, Table 3.2

Public Investment Programme, 2023

PIP+RRF revenue is expected to decrease by 2.9% compared to last year, despite a EUR 846 million increase in the RRF revenue. In contrast, expenditure is expected to increase by 3.0%, with the increase coming exclusively from the recovery fund. The expenditure of the PIP (without taking into account the RRF) is expected to decrease by EUR 500 million from EUR 8.8 billion to EUR 8.3 billion, while the expenditure of the RRF is expected to increase by 30.0%.

C. Financial developments

[12] The PIP category includes the flows of the Recovery and Resilience Facility for 2021 and 2022.

- In the fourth quarter of 2022, the European Central Bank continued to raise key interest rates to ease inflationary pressures.
- The cost of new borrowing to the private sector increased at the end of 2023. The cost of new borrowing for the Greek government declined slightly in December 2022 to 4.2%, after a 5-year high of 4.9% in October.
- Credit to firms continued to grow, offsetting the credit contraction to households.
- Non-performing loans (NPLs) on banks' balance sheets declined at a slower pace in the third quarter of 2022, falling to a single-digit percentage of total loans (9.7%), for the first time since December 2009.
- The multi-month rise in private deposits was halted in October-November.
- The use of liquidity-support tools of the Eurosystem by Greek banks decreased slightly at the end of 2022, for the first time since the beginning of the pandemic crisis.
- The implementation of the loan arm of the National Recovery and Resilience Plan accelerated in the second half of 2022, with a view to boosting credit growth and investment in 2023.

The slowdown in economic activity and rising borrowing costs pose new challenges to the financial system. The international monetary environment is tightening, with the cost of money expected to continue to rise in the first half of 2023. After 11 years of accommodative monetary policy, the ECB raised the key interest rates four times in the second half of 2022, cumulatively by 250 basis points, with markets discounting a further increase in the course of 2023.

The first signs of a decline in inflation and the "opening" of China's economy improved the investment climate in financial markets in the fourth quarter of 2022, with the Greek stock market and the financial sector recovering losses over the past six months, albeit with relatively low trading volumes. Thus, the bank index at the end of December traded around 24% lower than the pre-pandemic level (early 2020) and 14% lower than in mid-February this year, before the outbreak of the war in Ukraine.

Uncertainty about the degree and duration of a slowdown in the real economy is affecting the outlook for the financial sector, including in terms of asset quality and profitability prospects. Challenges from the past include a high share of Non-Performing Loans (NPLs) in the economy, a high share of deferred taxes in equity, and weak bank profitability. New challenges arising from the current conditions include the deterioration of the ability of borrowers to repay at floating interest rates, as well as the conditions for returning "restructured" former NPLs to the banking system.

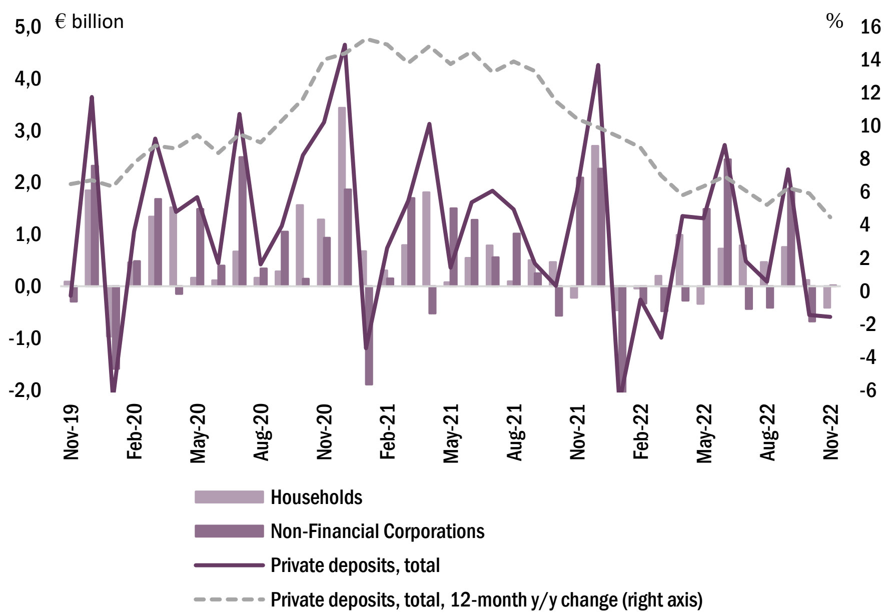
On the monetary policy side, in addition to interest rate increases, the ECB ended net new purchases under the extraordinary PEPP and APP programmes in 2022, while continuing the reinvestments of the corresponding maturing bonds. However, the cost of using banks' long-term funding tools by the Eurosystem has started to increase, leading to a gradual reduction in the attractiveness and degree of use of these tools. In the case of Greece, the ECB had announced that there was scope to exceptionally continue net new PEPP purchases in order to maintain the smooth monetary policy transition in all Member States. Following the energy crisis, in July 2022 the ECB announced the creation of a Transmission Protection Instrument (TPI) of monetary policy to ensure a smooth and efficient transmission of monetary policy in each member country, on the basis of certain minimum requirements.

Among the positive trends in banks' fundamentals, credit growth to firms strengthened, while the decline in NPLs on banks' balance sheets continued, albeit at a slower pace. At the same time, the implementation of the loan component of the National Recovery and Resilience Plan was accelerated, creating opportunities to further stimulate credit for productive investments.

Among the negative trends, there is an increase in the cost of new borrowing in the private and public sectors, the upward trend in private deposits has stopped, the credit contraction to households has continued unabated, while the ECB's liquidity-providing tools are gradually becoming more expensive.

Figure 2.7

Monthly net flow of private deposits at Greek banks



Private sector deposits strengthened by EUR 1.1 billion in September-November 2022, but with a reversal of their positive trend after September.

Source: Bank of Greece

On the liabilities side of banks, private deposits increased in the period from September to November 2022 by EUR 1.1 billion, of which EUR 0.5 billion inflows came from households (Figure 2.7). However, the positive trend changed sign in October-November, with a net outflow of EUR 1.1 billion, of which EUR 0.9 billion came from firms. The year-on-year rate of change declined to 4.5% in November, compared with an average rate of 9.0% over the two-year period 2020-2021, against a background of pandemic and expansion of savings. Cumulatively since March 2020, private deposits have increased by EUR 41.4 billion, of which EUR 21.9 billion come from households.

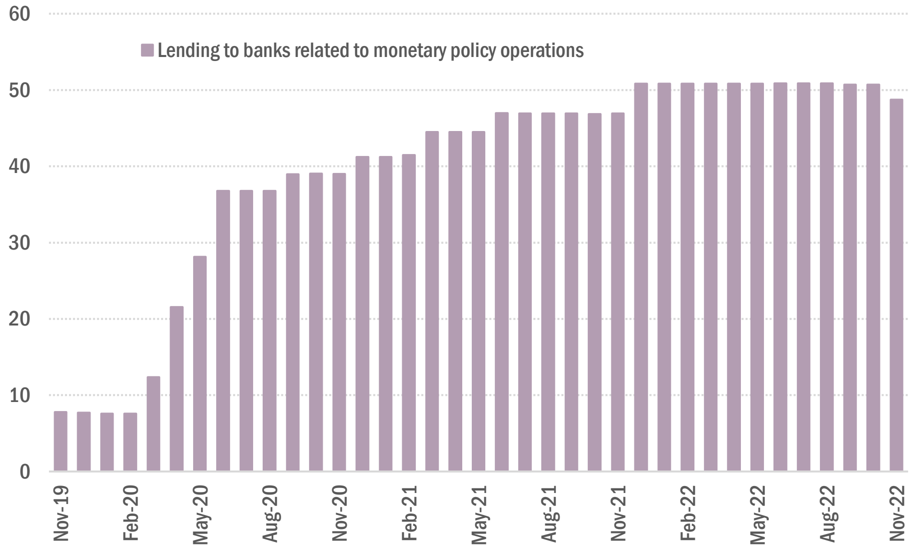
For 2023, the private deposit fatigue is expected to carry on. As inflation becomes stagnant, fiscal constraints gradually constrain the amount of financial support measures, so real disposable income and household and corporate savings are expected to contract further.

The second part of banks' liabilities concerns Eurosystem funding. Banks' funding from the Eurosystem was provided through particularly low-cost tools during the pandemic crisis, when it increased between February 2020 and August 2022 by up to EUR 43.3 billion (Figure 2.8). Low-cost long-term refinancing operations for banks (e.g., LTROs, PELTROs, TLTROs) provided significant liquidity to banks, reaching EUR 50.9 billion in August 2022. The gradual increase in the cost of providing liquidity by the ECB through these tools in the autumn of 2022 led to a decrease in their use by EUR 2.1 billion in September-November. At the same time, domestic banking assets accepted by the Eurosystem as collateral for monetary policy operations, as reflected in the Bank of Greece's financial statements, declined over the same period, reaching EUR 66.9 billion in November. The third part of banks' liabilities concerns capital market financing.

Figure 2.8

Long-term financing of the Greek banks from the Eurosystem (billion €)

The use of liquidity-support tools of the Eurosystem by Greek banks declined slightly in November to EUR 48.7 billion for the first time since the beginning of the pandemic crisis.



Source: Bank of Greece

On the assets side of banks, the 12-month growth rate of credit to the domestic private sector strengthened to 5.5% in September-November 2022. The corresponding rate for non-financial corporations (NFCs) increased to 11% over the same period (Figure 2.9). Credit growth for self-employed and sole proprietorships remains low, at rates of close to 0.5%, while the credit contraction to households continued, with an annual rate of change of around 2.1% (Table 2.13).

Changes in both supply and demand for loans, under the influence of the pandemic, contributed to these trends in private sector financing. On the supply side, the rapid reduction of NPLs and the acceleration of the implementation of the loan arm of the National Recovery and Resilience Plan “Greece 2.0” have a positive impact on NFCs. On the demand side, the new escalation of uncertainty acts as a deterrent to new investment, but this is offset by projects already planned to be included in the recovery plan. The Bank of Greece’s bank lending survey in the third quarter of 2022 recorded a strengthening in expectations of demand for new loans in business credit, but a decline in demand for consumer and housing credit. Credit terms have stagnated and are not expected to change in the short term.

Table 2.13

Domestic bank financing and average interest rates per portfolio

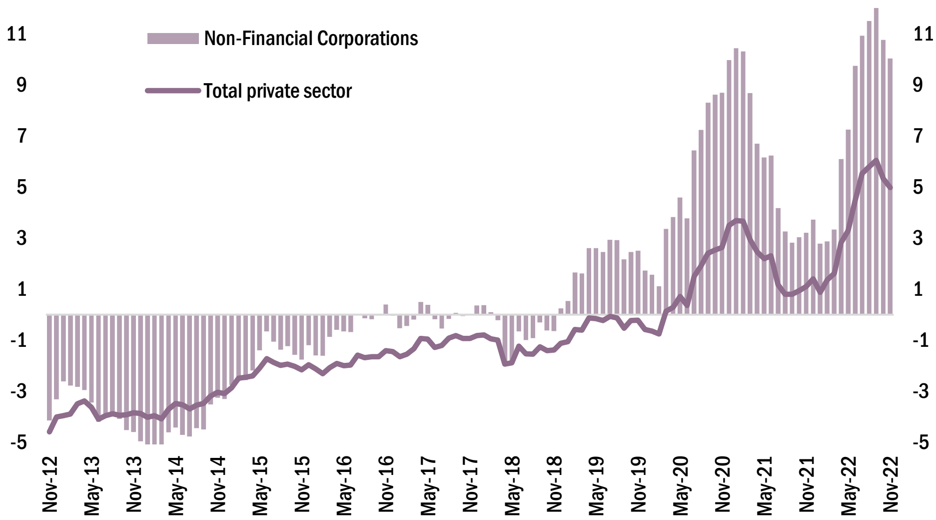
Quarter/Year	4/21	1/22	2/22	3/22	Oct.22	Nov.22
Annual % change of 12-month flows*						
Total private sector	1.1	1.3	3.5	5.8	5.3	5.0
Households & NPIs	-2.4	-2.2	-2.1	-2.2	-2.3	-2.1
Consumer credit	-0.8	0.0	0.7	1.1	0.5	1.4
Mortgage credit	-2.9	-2.9	-3.0	-3.1	-3.1	-3.0
Sole proprietors and unincorporated partnerships	1.8	0.9	0.6	0.6	0.7	0.4
Non-financial corporations	3.3	3.0	7.7	11.6	10.8	10.0
Interest rates on new loans (period average, %)						
Consumer credit	10.3	10.5	10.3	10.6	10.6	10.7
Mortgage credit	2.77	2.83	2.95	3.17	3.69	3.52
Loans to non-financial corporations	2.87	2.88	3.22	3.29	4.26	4.40

Source: Bank of Greece.

* The flows result from changes of outstanding balances corrected for loan write-offs, re-evaluation of securities, foreign exchange differences and reclassification/transfer of loans.

Figure 2.9

Bank financing of the domestic private sector 2012-2022 (annual % change of 12-month flows*)



Credit growth to firms remained strong, offsetting the credit contraction to households

Source: Bank of Greece

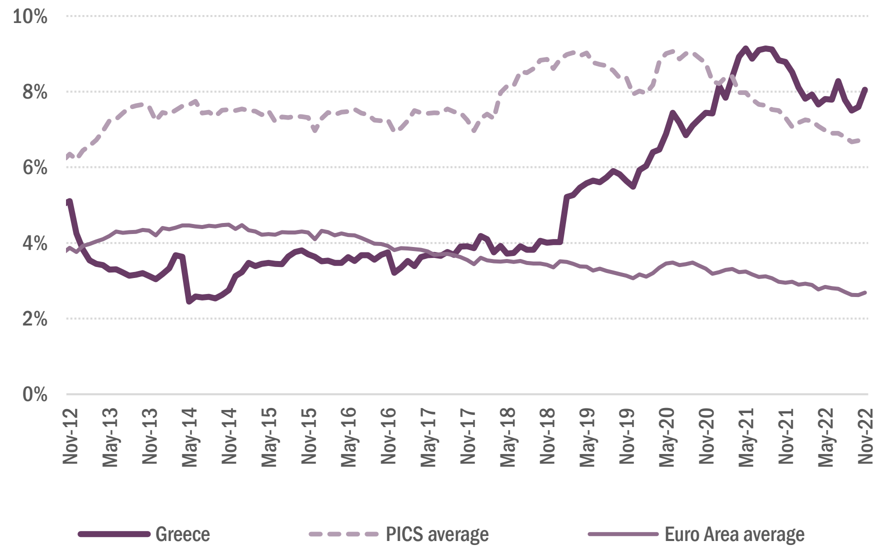
* The flows result from changes of outstanding balances corrected for loan write-offs, re-evaluation of securities, foreign exchange differences and reclassification/transfer of loans.

During the pandemic period, the role of the Greek government in absorbing resources in the domestic banking system increased. Following the outbreak of the pandemic and in particular during 2022, in terms of new loans, the high annual growth rate of credit to the general government declined significantly to 7.4% on a 12-month rolling base in November, from 43.3% in the same month last year. On the assets side, banks strengthened their exposure to sovereign debt in late 2022, reaching EUR 27.1 billion in November 2022 or 8.1% of their total assets. Thus, the share of total assets of Greek banks placed in government bonds is slightly higher than that of the rest of the euro area's "south" countries, but significantly higher than the share for the euro area average (Figure 2.10).

Figure 2.10

Banks' government bond holdings over total assets (%)

The relative exposure of Greek banks to government bonds increased slightly in late 2022, above the euro area average.



Source: ECB

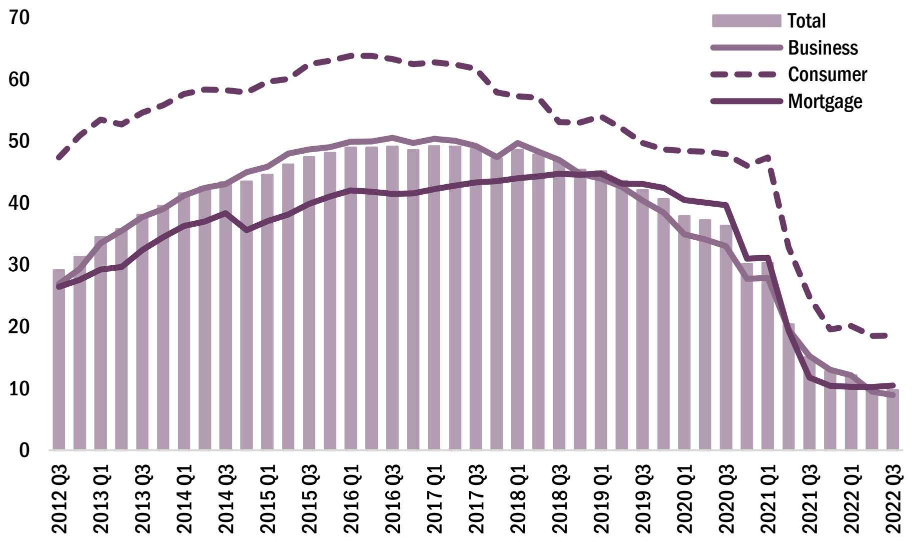
Non-Performing Loans (NPLs) recorded a further slight decrease in the third quarter of 2022, by 0.4 pps or EUR 0.3 billion, declining in September 2022 to a single-digit percentage (9.7%) of total loans (to EUR 14.6 billion), for the first time since the end of 2009. The overall level of NPLs remains higher than in other European countries, where it is at low single-digit rates. In business credit, the NPL ratio decreased in the third quarter of 2022 to 8.9%, from 9.5% in the previous quarter, while in consumer loans it remained stable at 18.5%. By contrast, the NPL ratio increased from 10.2% to 10.4% in mortgage loans.

Since early 2020 when the implementation of the state-guaranteed programme (Hercules) started, despite external shocks, the stock of NPLs on banks' balance sheets decreased dramatically by EUR 54.0 billion or 30.9 pps. The Hercules securitisation programme ended in October 2022. However, the stock of non-performing private debt, on and off-balance sheets of the banking system in total, remains high, with negative effects on the efficient allocation of economic resources and the prospects for economic recovery. For this reason, the successful implementation of reforms in relation to the Bankruptcy Code and the out-of-court debt settlement mechanism is of high importance.

In the medium term, the decline in NPLs is expected to weaken due to base effects, the end of the Hercules securitisation programme, and the risk of new NPLs emerging in individual portfolios such as housing. In the short term, the decline in NPLs is likely to be partially offset by shocks from the impact of the new energy crisis and high inflation, affecting both households and firms, especially in energy-intensive sectors. The shocks are also linked to the rise in interest rates on floating interest loans, owing to successive increases in key ECB interest rates. In the event of an increasing shock, the development of the State guarantees provided under the Hercules programme is also a source of uncertainty for public finances. Moreover, the conditions set for the possibility of a gradual return of "restructured" former NPLs to banks' balance sheets are also of interest.

Figure 2.11

Non-Performing Loans, % of total loans by category*



In the third quarter of 2022, NPLs declined at a slower pace, by EUR 0.3 billion, to a single-digit share of the total loan portfolio, for the first time since December 2009.

Source: Bank of Greece

* On-balance sheet loans (before provisions) on an individual basis

As regards new credit, the credit to households is expected to continue to contract, while inflows from the European recovery fund and the related leverage of private investment are expected to maintain strong credit growth to firms in 2023. The banks started to co-finance the loan arm of the recovery fund, totalling EUR 12.7 billion for Greece by 2026. According to data from the special service for the coordination of the recovery fund (EYSTA) of the Ministry of Finance (presentation at the annual workshop on the implementation of Greece 2.0, co-organised on 28/11/2022 by the European Commission, EYSTA and IOBE), the implementation of the loan component accelerated in the second half of 2022, while by July 2022 only EUR 1.2 billion and EUR 0.1 billion had been applied for and approved respectively, by October 2022 the same values had exceeded EUR 3.8 billion and EUR 0.8 billion respectively. In addition, Greece was the 3rd European country to meet the milestones of the first tranche and received a total of EUR 3.6 billion in April 2022, and the 5th European country to apply for the second, equal tranche, in September 2022, which received a positive opinion from the European Commission at the end of November.

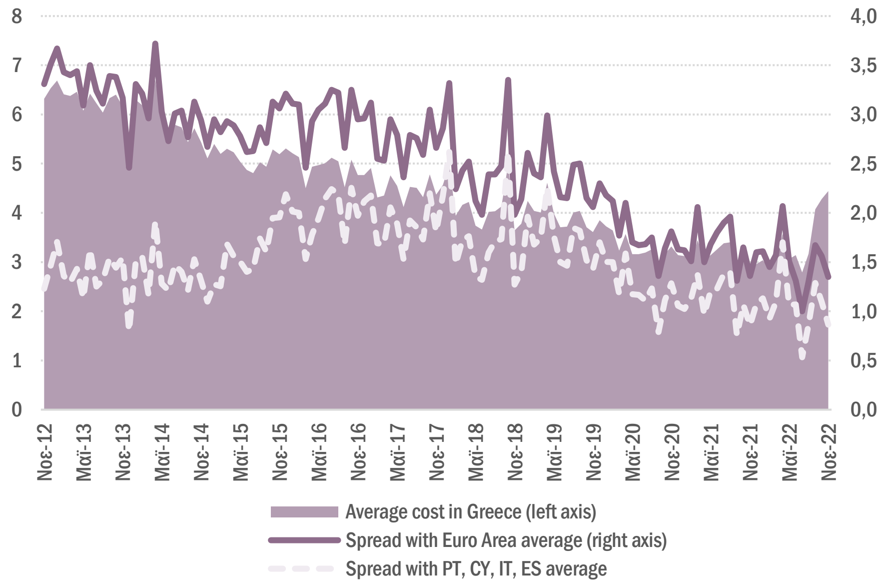
Interest rates on new deposits remained exceptionally low in September-November 2022, at 0.04% and 0.06% for non-financial corporations (NFCs) and households respectively. In the same quarter, the average new lending rate increased significantly to 4.8%, at around 5.5% for individuals, 6.2% for freelancers, and 4.2% for NFCs. The spread of the average interest rate on loans and deposits (interest margin) increased to 4.8% in November, compared with 3.8% in the whole of 2021.

The average cost of new bank financing of private sector NFCs increased to 4.4% in November (Figure 2.12). At the same time, the cost of financing Greek businesses is higher than in other euro-area countries. Indicatively, according to the ECB's weighted bank borrowing cost index, the cost for non-financial corporations in November 2022 stood at 3.1% in the euro area, 3.3% in Germany, and 3.6% in the countries of the "south" of the Eurozone (Portugal, Italy, Cyprus, Spain). As a result, the spread of borrowing costs for Greek companies compared to the average of the euro area and the region's "south" reached 135 bps and 87 bps respectively. Comparing it to the level before the 2010 fiscal crisis, the spread of borrowing costs for Greek companies against the average of the other countries of the euro area's south remains significantly higher.

Figure 2.12

Composite cost of borrowing for non-financial corporations (%)

Interest rates for new private sector loans increased in late 2022, to 4.4% in November, with the distance from the average borrowing costs in the euro area's southern countries at 87 basis points.



Source: ECB

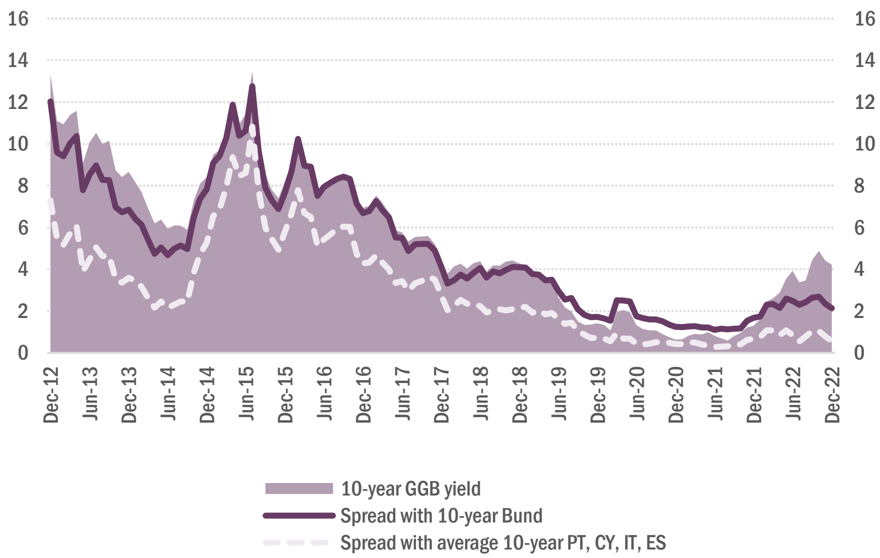
Greek government bond yields stabilised at the end of 2022 at levels above 4%, but slightly below the 5-year highs recorded in October, due to the negative impact of uncertainty caused by the energy crisis, inflation, and geopolitical instability. Thus, for the 10-year security the average yield totalled 4.2% in December (Figure 2.13). The additional burden on the new 10-year cost of Greek government borrowing compared to the rest of the euro area countries declined slightly at the end of last year. In December, it stood at 214 bps and 56 bps in relation to the German bond and the average of the euro area's "south" countries, respectively, from 235 bps and 87 bps in 2022 as a whole. Spreads remain significantly higher than their average values in the first decade of the country's accession to the Eurozone (54 bps and 2 bps respectively).

In the context of the Greek government's financing strategy, in 2021 and 2022, a total of EUR 14 billion and EUR 8.3 billion were raised from the long-term bond markets, while in 2023 the target of the PMDA is to raise around EUR 7.0 billion. In mid-January 2023, a new 10-year bond was issued, with the Greek government raising EUR 3.5 billion at a coupon rate of 4.27%, of which 78% was absorbed by international investors.

Economic and geopolitical shocks in the international environment led to an increase in government bond yields internationally in 2022, with greater intensity for countries in the "periphery", such as Greece. In this volatile international environment and domestic election year, the Greek creditworthiness has not yet managed to recover the longed-for "investment grade" from international rating agencies, with four of them (S&P, Scope DBRS, R&I) assessing the Greek government just one notch lower, with the relevant goal set for the second half of 2023. The level of Greek public debt remains among the largest in the world as a percentage of GDP. Offsetting this quantitative feature, its qualitative characteristics, such as its high average repayment maturity and the high share of debt at a fixed and low interest rate to international organisations, mitigate the risk of its long-term unsustainability.

Figure 2.13

Yield and spread of the 10-year Greek sovereign bond (%)



The average yield on the 10-year government bond stood at 4.2% in December 2022, slightly down from the 5-year high of October (4.9%), while the average spread fluctuated around 214 bps compared to the corresponding German bond.

Source: ECB

3 PERFORMANCE AND OUTLOOK

3.1 GDP components

A. Recent developments

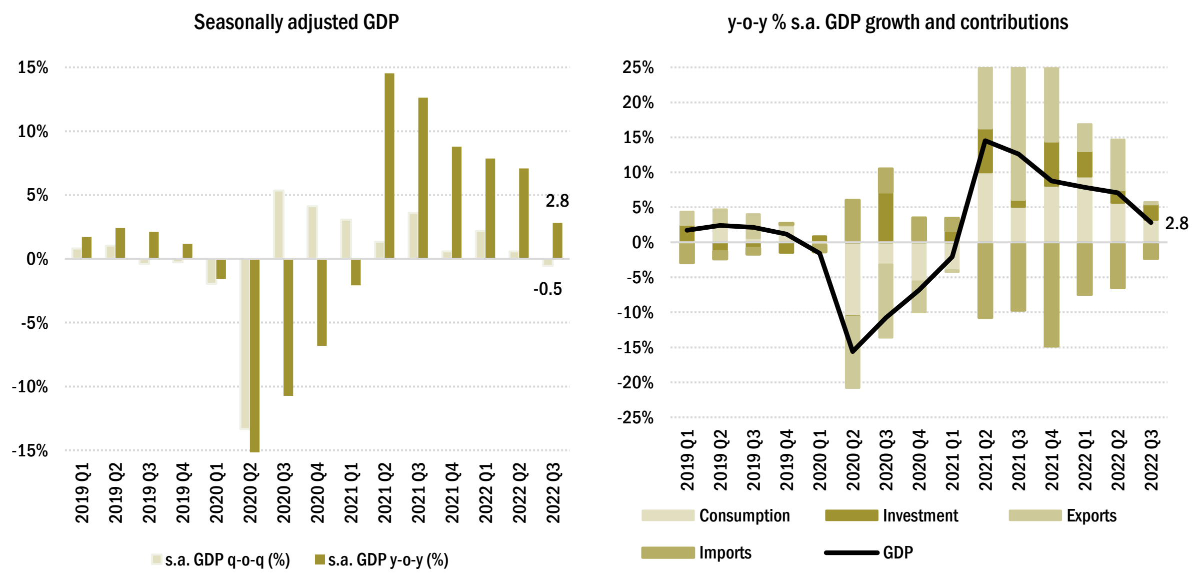
- An unexpected slowdown in annual growth to +2.8% in Q3 2022, from +7.1% in Q2 2022, and a recession of -0.5% compared to the previous quarter.
- The decline in GDP growth at constant prices is mainly due to a sharp fall in the annual growth rate of exports of services, to +3.0% from +45.8% a quarter earlier.
- The stagnation of total exports (+0.9% y-o-y) combined with the increase in imports (+5.2% y-o-y), exacerbated the external deficit in national accounting terms compared with a year ago by around EUR 902 million or 1.7 pps of quarterly GDP.
- Household consumption posted a milder annual growth of +6.2% compared to +8.9% a quarter earlier, maintaining its role as the main driver of growth.
- Investment continued its positive trend for another quarter, with an annual increase of +12.3% compared to +10.1% in Q2 2022, due to the expansion of fixed capital formation (+7.7% y-o-y) and an increase in inventories (+30.2% y-o-y).
- Assessing the trends in deflators of selected components of GDP, during the 2021-2022 energy crisis:
    - There is a persistent discrepancy between the deflators of imports and exports, with price increases consistently higher in the latter.
    - Domestic deflators are higher than those of the euro area in all components of GDP, with the exception of fixed capital investment.
    - The industry sector appears to be contributing more to inflation since the end of 2021, but a significant contribution has also been made by the primary sector and trade-tourism-food services.

Recent macroeconomic developments in Greece

The recovery of the Greek economy slowed significantly in the third quarter of 2022 compared to the previous quarter but remained slightly above the EA average. In particular, GDP grew in July-September, a period when estimates were optimistic due to the peak of tourism activity, at an annual rate of +2.8% (+2.3% in the EA), from +7.1% in the second quarter of 2022, while a year earlier it had increased by +12.6%, with the relaunch of the Greek economy after the lifting of the measures against Covid-19. The lower growth rate of domestic GDP is mainly due to an unexpectedly large drop in annual export growth, both of goods and services, a component that made the biggest contribution to GDP expansion in the previous quarter. By contrast, the annual growth rate of imports declined more moderately, which offset in size the contribution of investment growth to GDP and exacerbated the external deficit in national accounting terms. Household consumption was the largest contributor to growth, which continued its expansion, at a declining rate, for another quarter (Figure 3.1).

Figure 3.1

Evolution of GDP and contribution of its components



Source: ELSTAT, Data processing IOBE

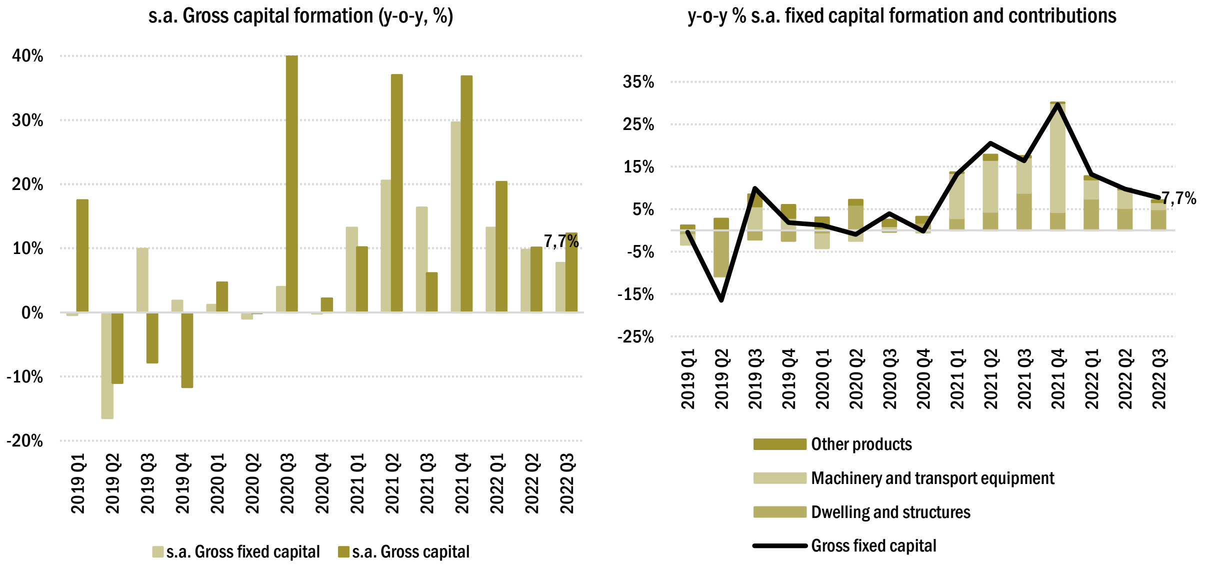
Private consumption and investment are the main drivers of recovery in the Q3 2022.

As regards the precise developments in the components of GDP in the third quarter of this year, the annual growth rate of domestic consumption almost halved to +3.6%, compared with a quarter earlier (+6.3%). The slowdown in domestic consumption is mainly due to a decline in public consumption by -2.9% (y-o-y), twice as high as in the previous quarter (-1.3%), due to the expiration of the exceptional support measures implemented during the pandemic, which affected the corresponding figures a year earlier. By contrast, private consumption proved resilient to inflationary pressures, driven by stronger spending during the tourist season and fiscal support measures (+6.2% from +8.9% in Q2 2022).

Investment recorded a higher annual growth rate of +12.3%, compared with +10.1% in the previous quarter. The resources of the recovery fund, coupled with bank credit growth, as well as the very low level of investment in fixed assets in recent years, can partly interpret the above outcome. Inventories increased significantly by +30.2% annually, compared with +11.4% a quarter earlier, while fixed capital formation expanded annually by +7.7%, milder than in the second quarter of 2022 (+9.8%).

Figure 3.2

Evolution of investment and the contribution of its components



Source: ELSTAT, Data processing IOBE

The annual growth rate of investment strengthened. Upward trends in all sectors except technology equipment.

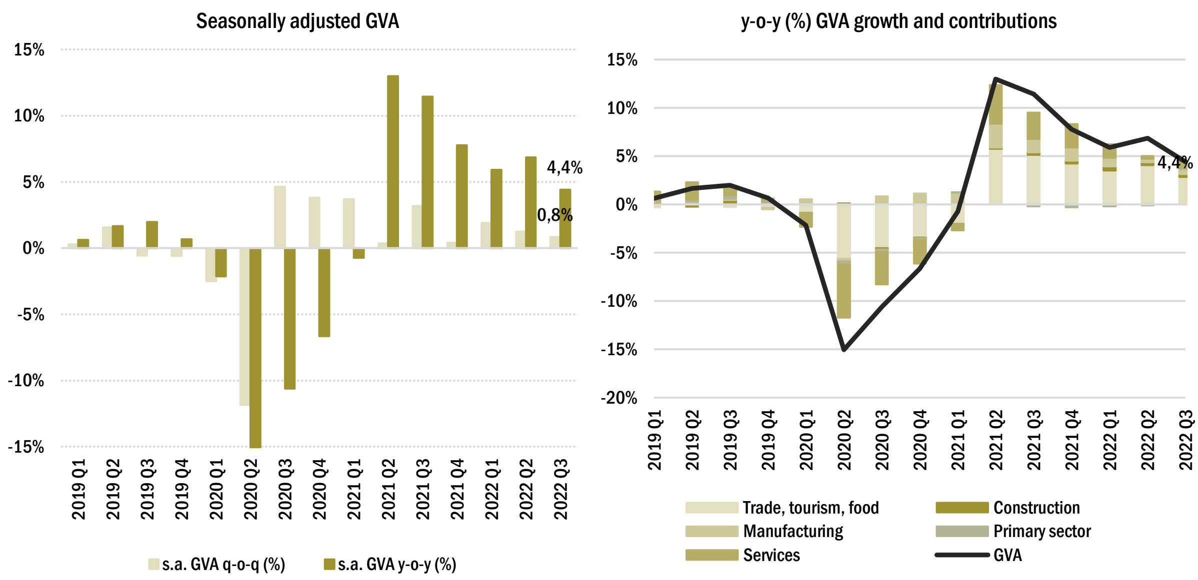
In particular, all the main investment sectors contributed to the increase in fixed capital investment, with the largest increase recorded in dwellings - construction, mechanical - transportation equipment, and other products (Figure 3.2). In greater detail, under the sub-categories of fixed capital investment, the annual rate of change of investment in all sectors except the technology equipment sector was positive, where investment fell annually by -26.7% compared with -14.8% in the second quarter of 2022. Investment in transport equipment showed the strongest annual increase by +35.3%, while a quarter earlier it fell by -2.0%. The second largest annual increase was recorded in other construction, which, continuing its positive trend, stood at +15.8%, compared with +14.5% a quarter earlier. The annual growth rate of investment in dwellings (+8.2%) and mechanical equipment-defence systems (+8.6%), was positive and almost equal, albeit lower in both sectors than in the previous quarter (+15.8% and +26.4% respectively). As mentioned in the previous quarterly report, the strong increase in investment in mechanical equipment-defence systems in the second quarter of 2022 may have been partly due to the recording of procurement of military procurement. Finally, investment in other and agricultural products also recorded a small annual increase, by 2.5% and 0.8% respectively.

With regard to developments in the external balance of the economy, the stagnation of exports at constant prices during the quarter when tourism activity peaks is of particular interest. In detail, services exports recorded an anaemic annual increase of +3.0%, compared to +45.8% in the previous quarter, while exports of goods decreased marginally by -0.3% year on year (+1.5% in the previous quarter), for the first time since Q2 2020. The weak export performance of services appears to be mainly the result of a higher base of comparison, with exports of services growing by +100.8% in the same quarter of 2021, the only quarter of 2021 without pandemic containment measures in place. The decline in economic activity in the euro area and the pressure of high energy prices also hampered the annual growth rate of services exports, with the nominal value of services exports recording a strong year-on-year increase of +25.8% in the third quarter of 2022. During the same period, visitor arrivals from abroad to Greece increased by almost 60% year-on-year. A more extensive analysis of the evolution of deflators by expenditure component of GDP for 2021-2022 is presented in Box 3.1.

The stagnation of exports combined with a milder deceleration in the corresponding import growth rate (+5.2% from +14.5% in the previous quarter), owing to resilient domestic demand, exacerbated the external deficit in national accounting terms compared with a year ago by around EUR 902 million or -1.7 pps of quarterly GDP. Specifically, imports of goods increased (+8.6% against +16.7% in the previous quarter) while imports of services decreased (-4.6% against +7.9% in the previous quarter). Finally, it is worth noting that the domestic economy maintains a high degree of openness, with the annual ratio of the sum of imports-exports to GDP remaining at a record high of 82% in the third quarter of 2022.

Figure 3.3

Evolution of GVA and the contribution of its components



Source: ELSTAT, Data processing IOBE

Tourism, Transport and Trade (wholesale and retail) made the largest contribution to GVA growth for another quarter

Approaching GDP on the production side, domestic gross value added (GVA) expanded stronger in the third quarter than GDP (+4.4% y-o-y), due to unprecedented energy subsidies, a figure which is counted as GVA but is not domestic production. In particular, for the calculation of GDP at market prices on the production side, subsidies on products are deducted from the domestic gross value added and the corresponding taxes are added. In Q3 2022, the annual increase in subsidies at constant prices stood at a record high of +571.7% (almost EUR 2.0 billion) to offset high gas and electricity prices, while taxes increased by just +15.9% (compared to +16.8% in the previous quarter).

Table 3.1

Trends in key macroeconomic figures – National Accounts (seasonally adjusted data, 2015 constant prices), provisional data

Quarter	GDP		Final Consumption		Investment		Exports		Imports	
	million €	Annual rate of change	million €	Annual rate of change	million €	Annual rate of change	million €	Annual rate of change	million €	Annual rate of change
2012	**180.393**	**-7,2%**	**163.441**	**-7,0%**	**20.240**	**-21,0%**	**48.968**	**2,0%**	**52.861**	**-5,8%**
2013	**175.948**	**-2,5%**	**156.885**	**-4,0%**	**19.587**	**-3,2%**	**49.843**	**1,8%**	**50.621**	**-4,2%**
2014	**176.974**	**0,6%**	**156.641**	**-0,2%**	**20.440**	**4,4%**	**53.954**	**8,2%**	**54.045**	**6,8%**
2015	**176.411**	**-0,3%**	**156.715**	**-0,0%**	**21.401**	**4,7%**	**56.661**	**5,0%**	**58.297**	**7,9%**
2016	**175.567**	**-0,5%**	**156.087**	**-0,4%**	**22.799**	**6,5%**	**56.426**	**-0,4%**	**59.964**	**2,9%**
2017	**177.427**	**1,1%**	**158.888**	**1,8%**	**21.659**	**-5,0%**	**61.229**	**8,5%**	**64.533**	**7,6%**
2018 Q1	44.873	1,8%	40.344	2,5%	5.145	-11,5%	16.095	8,5%	16.489	4,7%

2018 Q2	45.029	1,7%	39.699	0,1%	6.203	16,5%	16.955	7,9%	17.203	8,4%
2018 Q3	44.980	0,5%	39.847	0,1%	5.492	-0,6%	16.855	6,7%	17.772	8,8%
2018 Q4	45.273	2,1%	39.840	-0,5%	6.491	29,8%	16.906	13,6%	17.692	6,6%
2018	**180.155**	**1,5%**	**159.730**	**0,5%**	**23.331**	**7,7%**	**66.812**	**9,1%**	**69.156**	**7,2%**
2019 Q1	45.642	1,7%	40.436	0,2%	6.045	17,5%	16.904	5,0%	17.735	7,6%
2019 Q2	46.115	2,4%	40.828	2,8%	5.520	-11,0%	17.907	5,6%	17.695	2,9%
2019 Q3	45.932	2,1%	40.124	0,7%	5.064	-7,8%	18.303	8,6%	18.144	2,1%
2019 Q4	45.807	1,2%	40.916	2,7%	5.735	-11,6%	16.962	0,3%	17.596	-0,5%
2019	**183.497**	**1,9%**	**162.304**	**1,6%**	**22.364**	**-4,1%**	**70.076**	**4,9%**	**71.169**	**2,9%**
2020 Q1	44.918	-1,6%	40.528	0,2%	6.328	4,7%	16.705	-1,2%	18.142	2,3%
2020 Q2	38.920	-15,6%	36.173	-11,4%	5.514	-0,1%	11.973	-33,1%	14.909	-15,7%
2020 Q3	40.997	-10,7%	38.781	-3,3%	7.149	41,2%	11.496	-37,2%	16.658	-8,2%
2020 Q4	42.682	-6,8%	38.362	-6,2%	5.859	-2,2%	14.822	-12,6%	16.101	-8,5%
2020	**167.517**	**-8,7%**	**153.844**	**-5,2%**	**24.850**	**11,1%**	**54.996**	**-21,5%**	**65.812**	**-7,5%**
2021 Q1	43.989	-2,1%	38.694	-4,5%	6.972	10,2%	16.590	-0,7%	17.292	-4,7%
2021 Q2	44.571	14,5%	40.186	11.1%	7.556	37,0%	15.414	28,7%	18.728	25,6%
2021 Q3	46.169	12,6%	40.990	5,7%	7.587	6,1%	17.570	52,8%	20.327	22,0%
2021 Q4	46.436	8,8%	41.799	9,0%	8.015	36,8,2%	18.678	26,0%	21.303	32,3%
2021	**181.164**	**8,1%**	**161.669**	**5,1%**	**30.130**	**21,2%**	**68.252**	**24,1%**	**77.650**	**18,0%**
2022 Q1	47.447	7,9%	42.739	10,5%	8.390	20,3%	18.252	10,0%	20.307	17,4%
2022 Q2	47.726	7,1%	42.726	6,3%	8.321	10,1%	18.318	18,8%	21.438	14,5%
2022 Q3	47.469	2,8%	42.471	3,6%	8.523	12,3%	17.721	0,9%	21.380	5,2%

* Provisional data
Source: Quarterly National Accounts, ELSTAT, December 2022

At the sectoral level, tourism, transport, and trade (wholesale and retail) made the largest contribution to GVA growth, followed at a distance by Other Services and the secondary sector, which includes industry and construction (Figure 3.3). In particular, in the individual sectors of production, all of the ten main sectors of the Greek economy had an annual expansion of activity, with the exception of public administration-defence-compulsory social security, which experienced a small annual recession of -1.2% (compared to -2.5% in the previous quarter). The largest year-on-year increase among the sectors in the third quarter of 2022 was recorded by construction, by +14.8%, marginally milder than the +15.8% recorded a quarter earlier. Next came wholesale-retail trade (+12.7% from +18.5% in the previous quarter), reflecting strong domestic household demand. Arts-entertainment-recreation followed, where the annual activity increased by +10.7%, half the rate recorded in the previous quarter (+22.2%). Professional-scientific-technical-administrative activities continued to grow, with almost the same annual rate of +9.7% as in the previous quarter. Mining-quarrying-energy-information-communication had a similar annual expansion in activity by 3.6%, stronger than in the previous quarter (+2.5% and +1.5% respectively). A small annual increase was recorded in agriculture-forestry-fisheries (+2.3%) and financial-insurance activities (+0.4%), which is considered significant as activity had declined in both sectors a quarter earlier (-3.1% and -9.8% respectively). Finally, activity in real estate management remained stagnant year on year (+0.3%).

To sum up, the structure of the Greek economy's recovery changed in the third quarter of this year compared with the previous one, with private consumption retaking its leading role, after a significant slowdown in exports of services. The increase in imports offset in size the positive contribution of investment to the recovery and exacerbated the external deficit in national accounting terms.

Box 3.1

Inflationary pressures in 2022, by GDP component

The strong rise in inflation since early 2022 slowed the real growth rates of all key macroeconomic figures over the previous year. Its cumulative effect became particularly evident in Q3 2022, where the annual recovery stood at +2.8%, from +7.1% in the previous quarter. In the same quarter, while domestic demand appears to have remained relatively resilient to inflationary pressures, exports recorded an unexpected stagnation (+0.9% from +18.8% y-o-y in Q2 2022) during the peak period of tourism activity.

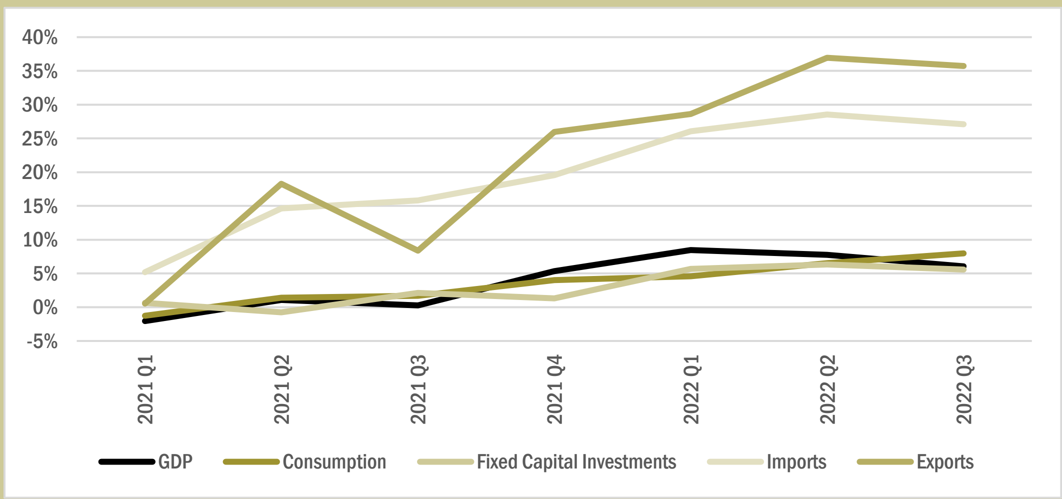
By contrast, the decline in import growth (+5.2% from +14.5% y-o-y in the previous quarter) was quite milder, resulting in a deterioration in the external deficit in national accounting terms compared with a year ago by around EUR 902 million or -1.7 pps of quarterly GDP. Only investment had a higher annual growth rate of +12.3% compared to +10.1% in the previous quarter, with fixed capital investment slowing to +7.7% from +9.8% in Q2 2022.

Meanwhile, in the same quarter, the CPI strengthened by 11.7%, mainly due to the boosting impact of energy prices. The corresponding annual rate of change in the HICP with fixed taxes and excluding energy was 7.5%.

To assess the contribution of price increases to key macroeconomic figures, we calculate deflators of domestic expenditure components since the beginning of 2021, when inflationary pressures started to emerge (Figure B3.1). [13] Initially, high and persistent inflation is observed throughout the previous year. It also illustrates the escalation of so-called "imported" inflation, with import and export deflators significantly exceeding those of consumption and fixed capital investment. There is, however, a steady divergence between the deflators of imports and exports, with the price pressure consistently higher in the latter indicator.[14] Specifically, in Q3 2022 the export deflator changed annually by 36%, while the import deflator showed a smaller annual change of 27%.

Figure B3.1

Deflation indicators by expenditure component of GDP
(% annual change)

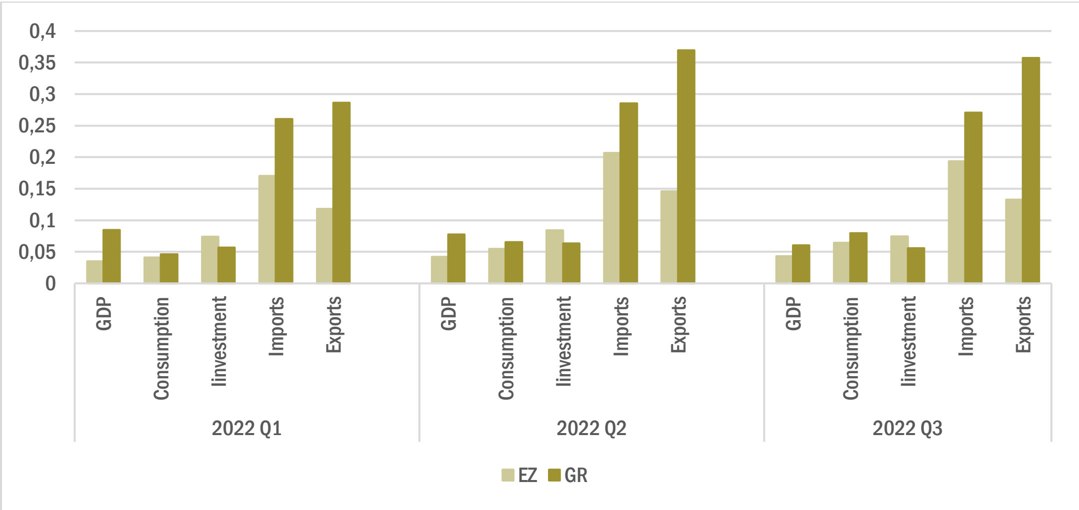


Source: ELSTAT

Figure B3.2

Deflators by expenditure component of GDP in Greece (GR) and the euro area (EA)
(% annual change)

[13] For the calculation of deflators, we divide the figures in current prices by the corresponding figures in chain-linked volumes (reference year 2015), according to ELSTAT data.
[14] According to ELSTAT, the Producer Price Index in Industry for the foreign market is used as a price deflator for the exports of goods. The same indicator is used for exports of services, excluding energy. The Consumer Price Index is used as a deflator for exports of travel services. Similarly, the Import Price Index of Industry is used as a deflator for the imports of goods, while the same indicator, excluding energy, is applied as a deflator for the imports of services.



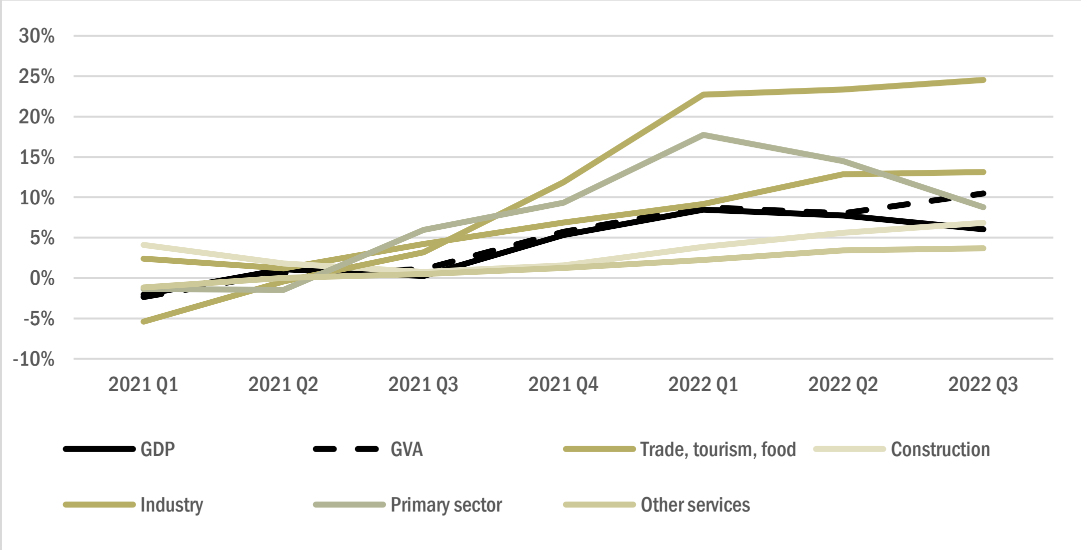
Source: Eurostat

The divergence between the deflators of the main components of GDP is also observed in the euro area, with export-import deflators well above those of consumption, fixed capital investment and total GDP in the first three quarters of 2022 (Figure B3.2). However, the comparison of euro area deflators with the corresponding indicators of the domestic economy shows two important features. First, domestic deflators are higher than those of the euro area in all components of GDP, with the exception of fixed capital investment. Second, the deviation of the rates between Greece and the euro area is much larger in the components of the external balance. For example, in the third quarter of 2022, the domestic export deflator had an annual change of 36% compared with 13% in the euro area, and the import deflator changed annually by 27%, compared with 19% in the euro area. It is also worth noting that unlike the Greek economy, in the euro area the import deflator is higher than that of exports throughout 2022.

On the supply side, we estimate deflators for the main components of domestic gross value added – GVA (Figure B3.3). Initially, the trajectory of GDP and GVA deflators is common as expected, with the only deviation occurring in Q3 2022, where, as mentioned in section 3.1, an unprecedented increase in energy subsidies was observed, a magnitude that is counted in GVA but not in GDP. In that quarter, GVA expanded annually by +4.4% compared to the annual growth of +2.8% of GDP. In addition, the deflators have grown in all industries since Q3 of 2021, with the highest rate recorded in the deflator for Industry. The Trade-Tourism-Food services deflator, which concerns a large share of domestic production, also had a double-digit change in Q2 and Q3 of 2022. The only exception to the accelerated inflation trend is the primary sector, where prices have been falling since the beginning of last year, albeit from a high base.

Figure B3.3

Deflators by GDP sector (% annual change)



Source: ELSTAT

To sum up, the above data point to a continued and strong increase in GDP deflators since mid-2021, much of which has been driven by the escalation in energy prices, as well as strong domestic demand since the end of the anti-pandemic measures. In addition, there is a significant divergence between expenditure deflators, with import and export deflators posting more than three times higher rates compared with consumption and fixed capital investment in the first quarters of 2022. Also, having a higher deflator in exports rather than imports has an undeniably negative effect on the statistical estimate of real GDP, as exports are one of the key components of domestic growth. Finally, on the production side, Industry appears to be contributing more to inflationary pressure since the end of 2021, but the primary sector and trade-tourism-food services have also had a significant contribution.

B. Assumptions and forecasts

Medium-term outlook

- Geopolitical instability in Eastern Europe and the Mediterranean, slow growth in the euro area, slow easing of the inflation, public finances, execution of the “Greece 2.0” plan, the elections, and getting the investment grade are the major drivers of GDP developments in 2023.
- Downward revision of the recovery to 5.2%, at constant prices for 2022, due to the sharp slowdown in the economy since the third quarter of the year.
- Upward revision only of the estimate of investment growth to 12.1% in 2022.
- Notably slower growth by 1.4% in 2023, driven by a decline in global economic activity and sustained inflation and uncertainty.
- Milder growth rates of all GDP components than in 2022.
- Possible further deterioration in the current account, with exports and imports increasing annually in 2023, by 2.1% and 2.7% respectively.
- An estimate of inflation at 9.6% for 2022 and 4.0% for 2023, and of unemployment at 12.3% and 11.5% respectively.

The war between Russia and Ukraine, two countries particularly important for supplying the world economy with energy and food products, and high inflation, due to supply-side shocks and strong demand, were the major drivers of the economy in 2022. Uncertainty about the evolution of both of these factors, as the risk of a further escalation of the war remains, is expected to determine geopolitical and economic developments this year as well.

Slow easing of inflation

The surge in energy prices, disruptions to production and transport services, as well as the strong consumption urge after the end of the pandemic, led to an escalation in inflation in 2022.

The domestic CPI 2022 approached a 27-year high, reaching 9.6%, marginally below the forecast of 9.7% by IOBE, with the HICP standing at 9.3%. While in the first nine months of 2022 overall domestic inflation was systematically above the EA level (7.8%), owing to the dependence of the Greek economy on imports of energy and intermediate goods, in the fourth quarter it declined to a single-digit percentage, slightly below that of the EA average. However, core inflation in Greece remains above the EA level, mainly driven by resilient domestic demand, which was significantly strengthened by the decline in unemployment and by fiscal stimulus. The trend towards rising prices of products and services as consumption recovers also points to a low ability of production to respond in a timely manner to demand surges and low intensity of competition.

Since the final quarter of last year, inflation has started to gradually decline, with the CPI decelerating for the third consecutive month in December 2022. In the last quarter of 2022, the CPI stood at 8.3%, down from 11.7% in the previous quarter. The decline in the CPI, which is expected to be further strengthened by the base effect, can be attributed primarily to lower energy prices and the expected weakening of demand, as well as to the interventionist policies of the ECB and the European Commission. Unlike in the first nine months of 2022, where energy goods made the largest contribution to the annual rate of inflation, in the fourth quarter the baton was taken by food, services and non-energy goods. The import of large quantities of LNG into the EU, coupled with a drop in demand due to high prices and mild temperatures, reduced pressures on energy prices.

Looking at expected developments in international energy prices, the International Energy Agency revised upwards its forecasts for global oil demand in 2023, considering India's strong growth and China's stability. At the same time, a potential decline in Russian oil production due to international sanctions, and despite the expected increase in output from other countries such as Norway, are creating the conditions for possible new increases in the oil price. In 2022, the international price of Brent oil stood at $100.9 per barrel, up 42.5% from a year ago. Food price pressures are expected to ease, according to indications from agricultural markets.

As a result of continued and extended price pressures throughout the previous year as well as extensive fiscal energy support measures to households, which reduce the elasticity of demand to prices, the Eurosystem projects inflation in the EA in 2023 to stand at 6.3%, while the European Commission also revised its forecast for average inflation in EA to 6.1% in November 2022, from 4.0% only a few months ago. Greece forecasts a marginally lower inflation rate of 6.0%. A lower inflation rate of 3.7% is forecast by the OECD for Greece, according to its January report. A more comprehensive analysis of the main drivers of inflation can be found in Section 3.5.

Slowdown in global economic activity

The escalation of inflation, driven by rising prices of energy, food, and other commodities, is affecting the global economy, which continues to struggle with the economic consequences of the pandemic crisis. OECD countries' economies grew at an annual rate of 2.5% in the third quarter of 2022, following a 3.3% increase in GDP in the previous quarter, while annual GDP growth in the most developed economies (G7) stood at 1.9%, compared with 2.4% in the previous quarter.

The EU is one of the most exposed economies, due to its geographical proximity to the war and its large, albeit declining, dependence on fossil fuel imports. EU and EA annual real growth declined significantly in the second quarter of 2022, to 2.5% and 2.3% respectively (from 4.3% and 4.2% in the previous quarter). Regarding the annual growth rate of Greece's main exporting companies in 2022, the OECD estimates 3.7% in Italy, 1.8% in Germany, 5.3% in Türkiye, 1.7% in Bulgaria, and 2.6% in France (more information on changes in the key macroeconomic aggregates of EU countries and globally can be found in sections 2.1.A and 2.1.B).

The EA economy is projected to slow down further this year, mainly due to the continuation of the war and energy scarcity, resulting in a decline in output and a halt to positive developments in the labour market. In November last year, the European Commission revised down its previous forecast of real GDP growth in EA to 0.3%, from 1.4% in 2023. EA's anaemic growth in the coming years is also forecast by the Eurosystem, estimating the growth rate of the EA at 0.5% in 2023, 1.9% in 2024, and 1.8% in 2025. According to a Financial Times poll, nearly 90 percent of the 37 economists surveyed predict that EA's GDP will shrink throughout 2023, warning that if EU sanctions against Russia continue, the former will face major difficulties in increasing its energy reserves, while the risk of an energy crisis even in the current winter, if weather worsens, has not disappeared. In the Financial Times poll a year ago, economists failed to predict the magnitude of the increase in energy prices, estimating an inflation of 2.7% for 2022.

The OECD also forecasts a weakening of global growth at 2.2% for 2023, with major emerging Asian economies accounting for nearly three-quarters of global GDP growth, following a sharp slowdown in the US and European economies.

"Aggressive" restrictive monetary policy by the ECB

Despite the notable risk of a recession following the significant slowdown in most of the world's economies in the final quarter of last year, many central banks continue their restrictive monetary policy in pursuit of a gradual easing of inflation to the long-term target of 2%. In particular, the FED's base rate has reached 4.25%-4.50% from 0%-0.25% at the beginning of 2022, after 7 hikes in 2022, while its president estimates that the range of interest rates in the future may be higher than previously expected and remain high for a longer period of time.

The ECB's stance on interest rates was less aggressive. It made four increases in its key interest rates in 2022, putting the main refinancing rate at 2.50% at the end of 2022 from 0% at the beginning of the same year. In its latest announcement, the ECB's Governing Council stated that on the basis of the upward revision of the inflation outlook, it would raise interest rates further, significantly but at a steady pace, in order to bring inflation back to tolerable levels.

With regard to quantitative easing policies, the ECB decided to reduce the size of its portfolio of securities purchased through the APP[15] as of early March 2023, by not reinvesting all capital payments from maturing securities. However, the pace of portfolio contraction will be "measured and predictable", with a decline of EUR 15 billion per month on average by the end of the second quarter of 2023 and will be systematically reviewed to ensure the ECB's control of short-term money market conditions and the orderly functioning of the banking system. As regards bonds purchased through the PEPP (Pandemic Emergency Purchase Program) to support economies amid the pandemic, the Governing Council intends to reinvest the main payments from securities maturing until at least the end of 2024. Finally, as private banks have repaid much of their lending after the completion of the third series of targeted long-term refinancing operations (TLTRO III) in June 2022, the ECB will continue to monitor banks' funding conditions to ensure smooth transmission of central monetary policy. The increase in key interest rates and the ECB's containment of quantitative easing policies resulted in a gradual appreciation of the euro against the dollar in the last quarter of 2022, after a decline since 2021. In 2022 as a whole, the euro/dollar exchange rate averaged 1.05, 11.3% lower than in 2021.

The continued rise in key interest rates over the past year significantly increased the borrowing costs of all economic actors: households, businesses, and the state. Investors reacted immediately after each

[15] The value of Eurosystem bonds under the APP (Asset Purchase Program) amounted to EUR 3.253 billion at the end of 2022.

announcement of higher interest rates by the central banks, with stock prices falling and corporate and government bond spreads widening. Moreover, the rise in interest rates had a negative impact on the existing debt obligations of firms and households, resulting in a slowdown in investment and consumption respectively. Finally, the expected disinflation this year, coupled with key interest rates remaining at high levels, is expected to lead to a gradual rise in real interest rates.

Although the rise in inflation is mainly driven by supply-side constraints, which monetary policy cannot affect, most central banks continue to intervene through their key interest rates, with the aim of shrinking demand and avoiding a persistent upward shift in inflation expectations.

Expansionary fiscal policy

In contrast to the ECB's restrictive monetary policy, fiscal policy in most EU and EA countries was for most of 2022 and continues to be expansionary, both in terms of government revenue (tax reduction) and government expenditure (subsidies), with the aim of mitigating the effects of high inflation and normalising economic activity. However, after two years of interventions due to the energy crisis and the pandemic, combined with a milder recovery in the economies, governments' capacity to react is limited.

The Greek government, in line with European practices, has received since the beginning of last year successive packages of measures, which have been focused on, but not limited to, the expenditure side and concern support for electricity and gas consumption. The expansionary fiscal interventions of the Greek government include fiscal measures of EUR 4.8 billion in response to the energy crisis, measures of EUR 4.4 billion in response to the health crisis, as well as measures for the benefit of citizens, such as a double increase in the minimum wage of 9.7% overall in 2022, abolition or significant reduction of taxes and social security contributions (reduction of the single property tax ENFIA, reduction of social security contributions and the special solidarity contribution, abolition of the tax on parental benefits/transfers), increase in allowances (housing student allowance and maternity allowance in the private sector), provision of incentives to extend full employment, as well as transfers to vulnerable social groups (low pension beneficiaries, people with disabilities, beneficiaries of guaranteed minimum income, etc.). Many of these measures are expected to be extended this year.

Successful execution of the State Budget

The burden on the fiscal balance from support interventions was mitigated by higher-than-expected indirect taxation revenues from energy products, due to their high prices, but also by better performance of tourism and economic activity more broadly, as shown by the budget implementation figures for 2022.

In this context, the execution of the State Budget (SB) was better than the initial targets in 2022. Indicatively, on a cash basis, the State Budget deficit and the primary deficit in January-November 2022 were lower than the corresponding targets included in the 2023 Budget Explanatory Report for 2022 (more information on the upcoming fiscal measures and the implementation of the SB are presented in Section 2.2B).

In the draft SB for 2023 presented in November last year, the Ministry of Finance revised the budgetary targets set in the Stability Programme in April 2022 for the general government primary balance, from a deficit of 2% of GDP for 2022 and a surplus of 1.1% of GDP for 2023, to a deficit of 1.6% of GDP for 2022 and a surplus of 0.7% of GDP for 2023. The downward revision of the 2023 primary surplus is the result of increased risks from the war in Ukraine, energy and fuel prices, and a slowdown in the global economy.

Government spending is expected to remain high, considering all the fiscal measures announced at the Thessaloniki International Fair and the increased spending on addressing inflation and the energy crisis. Regarding the Greek government's revenues, part of the tax revenue is expected to decrease due to the lowering of certain tax rates, as well as a slowdown in economic activity that will limit the receipts from income and consumption taxes (value added taxes are part of government revenues). By contrast, indirect taxation revenues from energy products are expected to increase due to the high prices of these products, and the taxation of energy producers' profits, thereby mitigating the burden on the budget balance. Government revenue for 2023 is expected to be further strengthened by the completion of tenders for Egnatia Odos and DEPA Infrastructure, as well as by allocating EUR 8.3 billion from the Public Investment Programme and EUR 7 billion from the Recovery and Resilience Facility.

The 2023 budget, the first state budget in the last twelve years to be drafted outside the framework of programme conditionalities or enhanced surveillance, is called upon to achieve the goals of sustainable growth, in a year of global slowdown or recession, and to support a wide range of reforms to improve the well-being of all people. It also needs to ensure the fiscal balance, which is a prerequisite for the sustainability of Greek debt and the achievement of an investment grade.

Fiscal rules revision plan in the euro area

The new framework of fiscal rules of the EA member states, currently under consultation, examines, among other things, the revision of the annual debt reduction rule (1/20th of the amount exceeding the 60% ceiling) in high-debt countries. According to the European Commission's proposals in November 2022, the new rules could allow for more flexibility for governments, as the Debt Sustainability Analysis (DSA) will be conducted on a country-by-country basis, with less reliance on fixed or common numerical targets, considering the implementation of reforms and structural measures. The European Commission also proposes to replace the structural fiscal surplus as a key monitoring fiscal indicator, with the medium-term path of net government expenditure linked to the DSA, submitted annually by each Member State and under the absolute control of governments. The new fiscal rules aim to ensure that the EU's reformed economic governance framework is simpler, more transparent, and effective, with greater national ownership and better enforcement, while enabling reforms and investment and reducing high public debt ratios in a realistic, gradual, and durable manner.

As regards enforcement instruments, not respecting fiscal rules can lead to the imposition of financial sanctions (which have never been implemented so far, while their amounts are expected to be lowered) and a suspension of EU funds disbursements, which requires particular attention in the case of Greece, as the country awaits the inflow of tranches of the recovery facility, among other European funds. The new fiscal rules are expected to enter into force in 2024, as they have been suspended until 2023 due to the pandemic and the Russo-Ukrainian war.

Reduction of public debt and expansion of private debt as percentage of GDP

Greek government debt has declined significantly as a percentage of domestic GDP over the past two years, with the ratio estimated at 169% of GDP at the end of 2022, down from 206% in 2020. Despite the widening of the absolute level of government debt in 2022, owing to the government's borrowing through bonds worth EUR 8.3 billion, as well as the disbursement of the tranches of the loan leg of the recovery facility, the strong nominal performance of the Greek economy, positive fiscal developments, and high inflation reduced the debt-to-GDP ratio and allowed the early repayment of EUR 1.9 billion of IMF loans and EUR 2.7 billion of GLF loans (the bilateral loans of the first programme).

As regards the borrowing costs of the Greek government, despite the unfavourable economic prospects and financing conditions in the EA, the spread of Greek bonds against the German bund did not widen significantly during the previous year, gradually converging towards those of Cyprus and Italy (close to 200 bps), albeit remaining well above the corresponding spreads of Spanish and Portuguese bonds (95 bps). Also positive for the sustainability of Greek debt is the fact that, following the adjustment programmes, a large part of the existing debt is in the hands of foreign investors and international organisations, with a high repayment maturity and low, stable interest rates, in conditions of rising interest rates for new borrowing by the member states of the EZ. It is worth noting, however, that Greece's debt obligations to the European Financial Stability Facility (EFSF) extend until 2070, with annual instalments growing after 2050 to over EUR 5 billion.

For the coming years, the Public Debt Management Agency (PDMA) estimates that Greece's gross financing needs will decline from 15% of GDP in 2022. Specifically, for 2023, the Agency estimates the country's borrowing needs at EUR 15.4 billion, the bulk of which relates to the repayment of previous debt. To finance its borrowing needs, the country will issue new bonds worth EUR 7 billion, unlike most euro area countries that increase their issuance activity by about 30% in 2023 compared to the previous year, while the remaining part of the needs will be met through inflows from the recovery facility, as well as other capital inflows carried over from 2022 (EUR 4.2 billion), privatisation proceeds (EUR 2 billion) and the use of EUR 2.2 billion from high cash reserves. The decrease in cash may be smaller if the Greek State issues green bonds worth around EUR 1 billion, which was postponed in 2022 due to high market uncertainty. Due to the new borrowing, total debt is expected to rise marginally, by around EUR 800 million, to around EUR 355.7 billion, with the European Commission expecting Greece to achieve the largest reduction in its debt-to-GDP ratio in 2019-2023 among all EA countries.

On 17 January 2023, the Greek State made the first issue of the year in the capital markets with a 10-year bond, raising EUR 3.5 billion (equivalent to 50% of its borrowing requirements for 2023), at a coupon rate of 4.28%. About 22% of the bonds of the new issue were distributed to Greek banks and 78% to international investors, of which 11% were hedge funds, 74% were fund managers and banks, and the rest were central banks and pension funds. The expansion of the investment base and thus the evolution of the cost of new borrowing of the Greek government is expected to depend directly on fiscal discipline, as well as on the expected granting of investment grade to the Greek economy in 2023.

In contrast to public debt, private debt, according to data from the IAPR and the Ministry of Finance, increased, reaching EUR 406 billion in November 2022, of which more than half are classified as non-performing, despite a decrease in the ratio of banks' non-performing loans through the Hercules programme to a single-digit rate in the third quarter of 2022, from 45% three years ago. With inflation shrinking the disposable income of all economic agents, households and firms may prioritise the payment of their liabilities, initially covering their recuring expenditure and debt obligations, especially mortgage instalments in fear of auctions, and leaving for last their liabilities to the treasury, thus harming fiscal revenues. The impact of the interest rate increase on these obligations is also expected to be significant and negative.

Investment – National Recovery Plan "Greece 2.0"

In its effort to exit the pandemic and energy crisis, as well as to create a sustainable increase in incomes that will allow economic convergence, the Greek government, like the other European governments, acquired in 2021 a powerful six-year financing tool - the European Recovery and Resilience Facility (RRF). In particular, Greece will receive EUR 31.16 billion (EUR 18.43 billion in grants and EUR 12.73 billion in loans) by 2026, with the aim of mobilising EUR 59.81 billion in total investment resources. These funds will finance 106 investment proposals, subject to 68 reforms. In terms of the distribution of European subsidies among the 4 main "pillars" of investment, 33.6% of the total grants relate to the Green Transition pillar, 11.8% to Digital Transition, 28.1% to Employment-Skills-Social Cohesion and the remaining 26.4% to Private Investment. At the end of 2022, Greece has disbursed a total of EUR 7.52 billion (EUR 3.96 billion in the form of pre-financing in August 2021, and a tranche worth EUR 3.56 billion in April 2022), while in November it received a positive assessment by the EU and the payment of the 2nd tranche worth EUR 3.56 billion, including Greece among the 6 European countries for which the 2nd tranche of the Fund has been approved (Italy, Spain, Portugal, Croatia and Malta). The strongest fund absorption was recorded in the pillars of digital transition (79.5%) and private investment (79.7%), followed by employment (61.6%) and green transition (54.4%).

The inflow of new European funds is expected to support the growth of investment in 2023, making the latter the main driver of growth for the coming year and perhaps the only component of GDP likely to exceed its growth rate from the previous year. Already in the first quarter of 2022, total investment has increased by 14.01% and fixed investment by 10.2% compared to the previous year. However, it is worth noting that most of the investments from the emergency liquidity stimulus programmes in response to the pandemic (e.g., co-financed guarantee schemes) appear to have been used for working capital, while the investment gap in fixed equipment of enterprises remains significant. Overall, the size of fixed assets investment remains below half its 2007 level, while its share of GDP falls short of almost 10 percentage points in the euro area. That said, investment is hampered by the generally aggravated economic climate due to prolonged uncertainty and high inflation, high cost of new borrowing, risk of a spiral of wage and price increases following the planned increase in the minimum wage this year, as well as a possible delay in required reforms in the first two quarters of 2023 in a protracted election run-off scenario.

Challenges in the banking sector

Uncertainty about the degree and duration of a slowdown in the real economy and rising borrowing costs pose new challenges to the financial system regarding banks' funding conditions, asset quality, and profitability prospects.

On the liability side, the increase in private deposits was halted in October-November, with its 12-month rolling rate of change falling by half (+4.5%) in November, relative to the average rate over the two-year period 2020-2021. For next year, even a reversal of a trend in private deposits is likely, as persistent inflation and a gradual weakening of fiscal support measures are shrinking disposable incomes and household savings.

Such a development may not allow Greek banks to reduce their significant credit dependence on the ECB in an environment of high interest rates. Low-cost long-term re-financing operations for banks (e.g., LTROs, PELTROs, TLTROs) provide significant liquidity to banks, reaching EUR 50.9 billion in August 2022. At the same time, domestic banking assets eligible by the Eurosystem as collateral for monetary policy operations, as reflected in the Bank of Greece's financial statements, declined over the same period, but a significant increase in their value is expected with the granting of investment grade to the domestic economy.

On the asset side, credit to firms has continued to grow, offsetting the credit contraction to households in 2022. Changes in supply and demand for loans contribute to developments in private-sector financing. On the demand side, the new escalation of uncertainty acts as a deterrent to new investment but is offset by projects already planned to be included in the recovery plan. The rising cost of financing Greek businesses, which is higher than in the rest of the euro area, is also inhibiting the demand for loans.

On the supply side, there is a positive impact from the rapid reduction in NPLs, albeit at decreasing pace, due to rising interest rates and the lifting of support measures to borrowers, and the acceleration of the implementation of the loan leg of the National Recovery and Resilience Plan "Greece 2.0". The continued extensive lending to the general government has a negative impact on the supply of bank credit. The exposure of Greek banks to sovereign debt is slightly higher than that of the other euro area countries, but significantly higher than the euro area average, and was further strengthened (by around EUR 770 million) with the new 10-year bond issued by the Greek State on 17 January 2023 (analysis on developments in the financial system is presented in Section 2.2C).

Granting of investment grade

The investment grade was lost in 2010, with the time spent without an investment grade being particularly long and significantly longer than the rest of the European countries in the south with corresponding adjustment programmes. In particular, Cyprus and Portugal remained without an investment grade for more than 6 years, recovering it within 3 and 4 years respectively after the end of their programmes. The year 2023 is the fifth year since the end of the last Greek programme.

The lack of investment grade in Greece for such a long time pushed up the expansion of public debt and deprived the domestic economy of significant capital, as Greek bonds, government and corporate, are not eligible for investment by large international, institutional, and long-term investors, nor from the ECB for extensive quantitative easing policies without the need for a special waiver. The granting of an investment grade is expected to prove to be a strong signal for the markets, improving expectations and leading to a broadening of the investment base and thus de-escalating the financing costs of both the Greek state and domestic companies. Overall, the investment grade is an important condition for investment growth in order to systematically put the Greek economy on the path of strong growth. And vice versa, however, as long as there are uncertainties about the future of our economy, the longer the acquisition of the investment grade will be delayed.

Today, despite the gradual improvement in the credit rating of the domestic economy, the Greek State is short by 1 to 3 notches from the investment grade, depending on the rating agency. However, the positive outlook in the ratings corresponds to a high probability of an upgrade next year, unless the upcoming elections disrupt the course of the economy.

Short-term activity indicators

As regards supply developments, high energy and intermediate goods prices, as well as disruptions in supply chains and transport, slowed up the domestic trends on the production side. In particular, in the first eleven months of 2022, industrial production increased by 2.6% year-on-year, higher than in the euro area (1%) but significantly lower than in 2021 (10.2%). In the key sectors of Greek industry, production strengthened only in Manufacturing, at a clearly milder pace than in the corresponding period of 2021 (4.3% instead of 9.2%). In the same period of 2022, the producer price index in industry increased by 37.0% against a significantly milder increase of 12.3% in the same period of 2021, when inflationary trends were significantly milder (an overview of trends in key production sectors is included in Section 3.2).

Cautious expectations due to uncertainty

The slowdown in economic activity, persistent inflation, and prolonged geopolitical uncertainty (war in Ukraine, tense US-China relations, risk of a “hot” incident with Türkiye) exacerbated domestic economic sentiment throughout last year. Even in the last quarter of 2022, the Economic Sentiment Indicator declined quarter on quarter, with a similar trend observed in the EU and the euro area. At the same time, the Consumer Confidence Indicator improved only marginally in the period from October to December 2022 compared with the previous quarter, while remaining sharply lower than a year earlier. It is worth noting, however, that the utilisation of Industry’s factory capacity has strengthened further, remaining above its long-term average.

At the beginning of 2023, business confidence appears to be at a turning point, with mixed trends and fluctuations by industry. Expectations are anticipated to strengthen in industry and construction, by the de-escalation of prices in energy and other raw materials, as well as in the services sector, due to the dynamics of international tourism. By contrast, retail confidence started to decline this year due to weakening domestic demand. On the household side, it appears in early 2023 that two opposing forces influence the evolution of consumer confidence. The impact of rising costs of living raises concerns in households about their financial situation in the short term, which is partly offset by successive packages of interventions to support the most vulnerable. Finally, an extended election period is expected to weigh on the domestic economic climate (more information on the economic sentiment is presented in Section 2.2A).

The labour market remains resilient

According to ELSTAT’s Labour Force Survey, the unemployment rate continued to decline in the third quarter of 2022, to 11.6%, down from 12.4% in the previous quarter and 13.0% a year ago. In the same quarter, the seasonally adjusted wage cost index increased by 1.8% year-on-year.

A similar trend of unemployment is expected this year, as the key determinants of employment are not expected to vary significantly. Among the factors that will foster the creation of new jobs in 2023 are (a) tourism demand, which will remain strong this year, according to the estimates of large tourism agencies,

(b) resilient domestic consumption, which despite the erosion of household disposable income due to the high, but declining, inflation and rising cost of servicing borrowing, is also expected to move moderately up in 2023; supported by the fiscal measures and the new increase in the minimum wage, (c) increase in investment in export sectors of industry and construction exploiting the resources of the recovery fund, and (d) new employment support programmes of the Ministry of Labour, through subsidising the recruitment and training of unemployed and workers.

By contrast, the weakening of production in sectors affected by the high cost of production factors, as a result of the continuation of the Russian-Ukrainian war, is hampering the creation of new jobs. Production costs will also increase further due to increases in nominal wages to protect workers' real incomes, boosting the closure risks of small and medium-sized enterprises that will not be able to cope with current market conditions. Finally, a long electoral period may negatively affect the functioning of the economy and thus employment (analysis of domestic labour market trends is presented in Section 3.4).

Deterioration of the Current Account

As consumption accounts for a large part of GDP and is closely linked to imports, the recovery of the Greek economy in 2022 worsened the external balance. In exports, the trend is also positive, but somewhat milder than imports, with an increase in exports of goods in recent years, a strong recovery in inbound tourism after the pandemic, and even considerable momentum in the sales of other services abroad.

In particular, the current account deficit increased significantly in the first ten months of 2022 (to EUR 13.6 billion, compared with EUR 7.3 billion in 2021). Most of the change came from a deterioration in the goods account, which, even excluding fuel and ships, remains significant. There is also a decline in primary and secondary income accounts, while the surplus in the services account partly offsets the losses. Nevertheless, the domestic economy maintains a high degree of openness, with the annual ratio of the sum of imports-exports to GDP remaining at a record high of 82% in Q3 of 2022 (the trends in the external balance, as well as a special analysis of the contribution of the current account components to its change, are described in Section 3.3).

The tendency of the trade deficit to widen whenever there is growth reflects relatively low competitiveness, as it shows that the revival of the economy, which of course is a positive development, is misaligned with the strengthening of the production base, which is even more necessary. It also maintains the risk of high "twin deficits", which make the domestic economy less resilient to external shocks. Finally, the combination of the deterioration of the external balance with high inflation is particularly worrying, as it undermines the possibility of raising real incomes in the future.

Avoidance of restrictive measures against Covid-19

The recession of the pandemic in 2022 allowed for the lifting of containment measures and smooth economic activity. However, the new coronavirus outbreak in China and the risk of a new variant of the virus are of concern to global health organisations. While some countries, like Greece, have already imposed a requirement for a negative Covid test on arrivals from China, generalised measures that disrupt economic activity are unlikely.

Box 3.1

Macroeconomic forecast drivers

Risks

- Continuation of the Russian-Ukrainian war
- Uncertainty: geopolitical tension, energy prices, and new electoral law
- Slowing global growth and risk of recession in the euro area
- A new round of international energy commodity price rises at the end of 2023
- Loss of competitiveness due to higher-than-average euro area inflation
- Restrictive monetary policy
- Increase in arrears and NPLs due to higher interest rates and cost of living
- Deterioration of current account – “twin” deficits
- Non-fulfilment of fiscal targets in a scenario of adverse economic conditions and political instability
- Delays in the implementation of the “Greece 2.0” plan

Positive outlook

- Systematic boost of openness
- Higher budget revenues and lower public debt
- Granting of investment grade
- Labour market resilience indications
- National Recovery and Resilience Plan and reform implementation
- Designing a new framework of fiscal rules in the EU
- Gradual reintegration of “restructured” former NPLs into the banking system

Medium-term forecasts

Based on the above analysis of the international and domestic economic climate and macroeconomic fundamentals, as well as in some key assumptions, we form the short-term forecasts for the components of domestic GDP.

Regarding consumption, the strongest constraining factor in consumer spending is the high, albeit falling, inflation, the cumulative effect of which has started to become more evident since the final quarters of last year. The full impact of high inflation, and the ensuing depression in real incomes, is expected to intensify this year.

Box 3.2

Baseline scenario assumptions

- The euro area economy follows the ECB baseline scenario (December 2022) of growth of 0.5% and inflation of 6.3% in 2023.
- The pandemic does not cause significant disruption to economic activity.
- Geopolitical instability in Eastern Europe and the Mediterranean continues at a similar intensity to that of 2022.
- Granting of an investment grade in the second half of 2023 by at least one rating agency.
- A slight delay (1-2 quarters) in the implementation of the “Greece 2.0” plan.
- Slightly higher public expenditure than the draft 2023 SB.
- Incoming tourism at the 2019 level.

The gradual slowdown of the post-pandemic, explosive at first, consumption urge is also affected by the depletion of savings accumulated during the pandemic, as well as the high cost of new and servicing existing borrowing. As the ECB is expected to keep interest rates at high levels throughout this year, coupled with a gradual decline in inflation, real interest rates may go up.

Employment stimulus is expected to hold back the slowdown in consumption, owing to the strengthening of investment activity through the recovery fund and planned appointments in the public sector, as well as the expected increase in the minimum wage. The expansionary policies of the Greek state, including subsidies and the reduction of certain tax rates, and perhaps some extraordinary election spending, are also expected to support disposable household incomes.

On the government side, public consumption is expected to decline in 2023, due to the phasing out of the energy support measures implemented last year, as well as the target of achieving a fiscal surplus this year. However, the strengthening of public sector employment and the maintenance of some inflation-related interventions may constrain the curtailment of government consumption expenditure. The elections are likely to prop up consumption spending in 2023.

For 2022, the annual change in private and public consumption is estimated at 7.7% and -1.1% respectively, with total consumption at 5.5%. A strong slowdown in consumption, also driven by the higher base effect, to 0.3% is expected in 2023, with private consumption expanding by only 0.8%, while government consumption drops by -2.0%.

Investments are expected to continue their upward path in 2023, with the resources of the recovery fund contributing to the wider strengthening of the openness and competitiveness of Greek enterprises. Domestic fiscal support measures (electricity subsidies, reduction of tax rates) for businesses will also boost investment.

That said, as for consumption, so also for investment, persistent uncertainty and high inflation are the main factors driving down dynamics this year. Higher production costs, driven by high prices of energy and other intermediate goods, as well as planned nominal wage hikes, coupled with higher borrowing costs from the banking system, are projected to significantly squeeze corporate profits, reducing available investment resources. The granting of investment grade to the Greek economy and the expansion of the investment base of corporate bonds is expected to restrain corporate borrowing costs.

For 2022, the annual change in investment is estimated at 12.1%. For 2023, investment is expected to be the main driver of growth, following the projected slowdown in private consumption and exports, with their annual change estimated at 8.5%.

As regards exports of services, their strong upward path was halted already in the third quarter of 2022, owing to a decline in economic activity in the euro area and a higher base effect. Also, exports of goods, although their contribution is small to total export growth, decreased annually by -0.3% in the third quarter of 2022 (for the first time since the second quarter of 2020), and may be further constrained by the weakening of domestic firms' output due to an increase in production costs. That said, the depreciation of the euro against the Dollar is encouraging for extra-EU exports.

The growth of imports and exports is expected to slow down significantly as a result of the weaker macroeconomic climate. The dependence of domestic production on energy and intermediate imported goods, as well as their close relationship with resilient domestic consumption, is inhibiting the reduction of imports.

Taking into account assumptions about the growth rate of the euro area, the prices of energy and intermediate goods, and the general climate of uncertainty, we estimate that annual export growth will stand at 5.8% in 2022 and 2.1% in 2023, while imports will change by 9.1% in 2022 and 2.7% in 2023, with the deterioration of the current account balance being one of the most significant risks for the domestic economy in the coming year.

Finally, we are revising the recovery estimate down to 5.2% for 2022, while we estimate a significantly slower growth of 1.4% in 2023, with a negative outlook, due to the above-mentioned risks, notably the slowdown in the global economy and the persistence of inflation and uncertainty and taking into account the impact of the higher base in 2022.

Table 3.2

Comparison of forecasts for selected economic indicators for the years 2022 – 2023 (at constant market prices, annual % changes)

	MinFin		EC		IOBE		IMF		OECD	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
GDP	5.6%	1.8%	6.0%*	1.0%*	5.2%	1.4%	5.2%*	1.8%*	5.1%*	1.1%*
Consumption	:	:	:	:	5.5%	0.3%	:		:	:
Private Consumption	7.2%	1.0%	5.8%	1.0%	7.7%	0.8%	0.3%	1.1%	8.0%*	0.5%*
Public Consumption	0.2%	-1.5%	0.6%	-3.7%	-1.1%	-2.0%	1.8%	-3.1%	1.9%	1.6%
Gross Fixed Capital Formation	10.0%	15.5%	11.5%	6.3%	8.5%	7.4%	10.6%	10.5%	8.5%*	2.5%*
Exports	9.7%	1.0%	12.7%	3.9%	5.8%	2.1%	5.9%	5.7%	5.1%*	-0.5%*
Imports	10.1%	2.6%	9.9%	3.1%	9.1%	2.7%	1.5%	2.5%	9.3%	2.4%
Harmonised Index of Consumer Prices (%)	9.7%	5%	10.0%	6.0%	9.6%	4.0%	9.2%*	3.2%*	9.5%*	3.7%*
Unemployment (% of labour force)	12.7%	12.6%	12.6%	12.6%	12.3%	11.5%	12.6%*	12.2%*	12.6%	11.8%
General Government Balance (% of GDP)	-1.6%	0.7%	-1.6%	1.1%	:	:	-4.5%	-1.9%	-1.6%*	0.5%*
Current Account Balance (% GDP)	:	:	-8.6%	-8.6%	:	:	-6.7%*	-6.3%*	-7.1%*	-8.9%*

Sources: Draft State Budget, Ministry of Finance, November 2022 - European Economic Forecast, autumn 2022, European Commission, November 2022 - The Greek Economy 04/22. IOBE, January 2022 - IMF Country Report No. 22/173, IMF, June 2022, *World Economic Outlook, October 2022 – Economic Outlook 112, OECD, November 2022, *Revision, January 2023

3.2 Trends in key sectors

- Industrial production strengthened by 2.6% in the first eleven months of 2022 against an increase of 10.2% in 2021. Signs of slowdown and trend reversal in the fourth quarter.
- Acceleration in Construction with production up by 20.8% in the first nine months of 2022, against 6.1% in the same period of 2021. However, building activity slowed down during 2022.
- An increase of 3.9% in the volume of retail trade in the first ten months of 2022 against a milder increase of 2.5% in 2021. Signs of a slowdown in October and deteriorating expectations throughout 2022.
- Improvement in turnover in six of the thirteen sub-branches of Services in the first nine months of 2022.

Industry

In the first eleven months of 2022, the industrial production index increased by 2.6%, against a significantly stronger increase of 10.2% in the same period of 2021. In November 2022, the month with the latest available data, output decreased marginally by 0.9% compared to November 2021, when it had increased by 9.0% year-on-year.

In the same period of 2022, the producer price index in Industry increased by 37.0% against a significantly milder increase of 12.3% in the same period of 2021 when the inflationary trends were significantly milder. The increase in prices was stronger in exported products (+41.8%, against an increase of 19.4% a year earlier). Domestic prices of industrial products increased by 35.5% when in the same period of 2021 the increase stood at 10.2%. Using both the production volume data and the price index, it is clear that the increase in the turnover index by 40.2% in the first ten months of 2022 (period with available data) is mainly due to the increase in prices.

In the euro area, industrial production increased by 1.0% in the first eleven months of 2022 (against an increase of 9.0% in 2021). In November 2022, industrial production increased by 1.3% while in the same month of the previous year, production had remained stable year on year.

In the key sectors of Greek industry, in the first eleven months of 2022, production increased only in Manufacturing, but at a clearly milder pace than in the same period of 2021 (4.3% against 9.2%). Production has fallen in all remaining sectors. In particular, mining output declined by 7.4% against an increase of 4.5% in 2021, while electricity production contracted by 1.7% (against an increase of 16.3% in the first eleven months of 2021).

In the sub-sectors of Mining, the general uncertainty in the supply of natural gas due to the Russian war in Ukraine led to an increase in production in coal and lignite mining (13.9% against 3.8% in 2021). In contrast, there was a decrease in the mining of metal ores (-5.8% against -12.2% a year earlier) and in other mining (-8.8% against +14.0%).

In Manufacturing, production increased in 19 of its 24 branches. Among the branches of major importance for the Greek economy, the production of medicines increased by 10.7% against an increase of 13.3% in the corresponding eleven months of 2021. Production in basic metals increased by 4.9% (against 1.4% in 2021) while in food it grew at a rate of 4.2% (against 3.7% a year earlier).

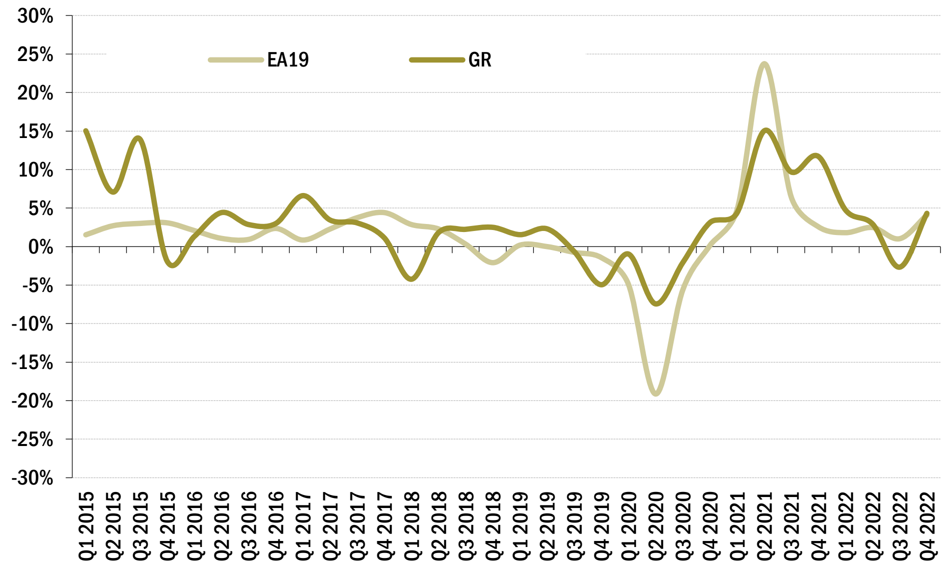
Among the other manufacturing sectors, strong output growth was recorded in the production of vehicles (34.9% against 9.8%), the manufacturing of computers (21.1% against 23.1%), and the printing and reproduction of pre-written media (21.1% against 8.9%). By contrast, production fell in chemicals (-2.6% against 3.9%), textiles (-2.6% against +9.5% a year earlier), metal products (-2.1% against 15.4%), oil refining (-1.5 % against 9.1%) and tobacco products (-1.4% against 9.2%).

An increase was recorded in the output of most main industrial product groups. The largest annual increase was recorded in durable consumer goods (21.7% after a 16.5% increase in the first eleven months of 2021), followed by non-durable consumer goods (5.8% against 8.5%), capital goods (5.4% against 13.7%) and intermediate goods (2.5% instead of 7.8%). Finally, energy production declined by 1.7%, compared with an increase of 12.4% a year earlier.

Figure 3.4

Industrial Production Index in Greece and in the Euro area (year-on-year % change)

Strengthening of domestic industrial production by 2.6% in the first eleven months of 2022, higher than the euro area average but significantly lower than in 2021 (10.2 %)



Sources: ELSTAT, Eurostat

Construction

In the first nine months of 2022, the production index in the construction industry increased by 20.8%, having accelerated significantly compared with the corresponding period of 2021 when it had increased by 6.1%. In the same period in the euro area (19 Member States),[16] the rate of change of the production index in construction was significantly lower than in Greece, standing at 3.5% against 10.3% a year earlier.

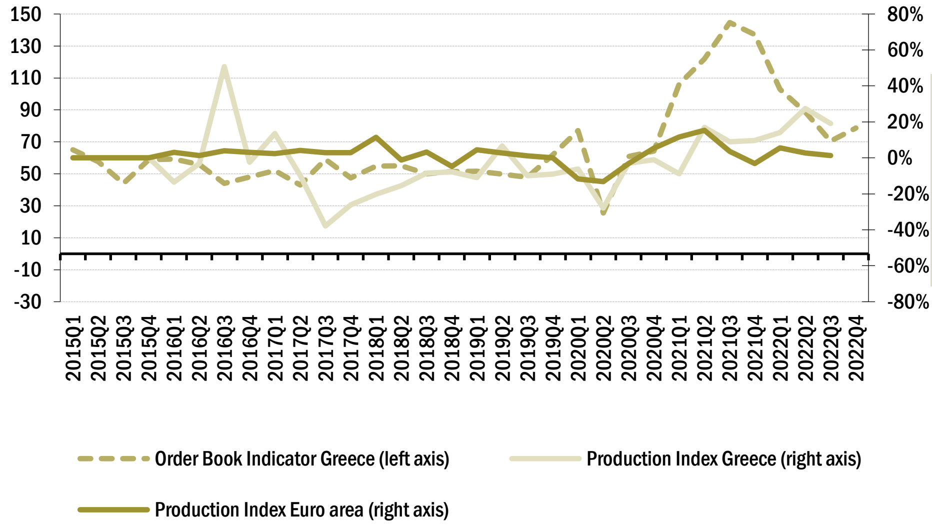
In Greece, in categories of construction activities during the same period, output in building works increased by 13.4% against a corresponding increase of 13.0% in the same period of 2021, while in civil engineering it increased by 26.2% (against a marginal increase of 1.4% in 2021).

Data on building activity show an increase of 2.4% in terms of the number of permits, against a strong increase of 27.0% in the first eleven months of 2021. A decrease was recorded both in terms of surface (-14.0% against -53.1%) and volume (-5.8% against 45.6%).

Figure 3.5

Production Index in Construction and Building Activity Index

[16] On 1 January 2023, Croatia joined the euro area. The Eurostat index still refers to 19 euro area members.



Acceleration of construction with a production index increase of 20.8% (against 6.1 %)

Source: ELSTAT

Retail Trade

The volume index in retail trade in the first ten months of 2022 increased by 3.9%, against a milder increase of 2.5% in the same period of 2021. The volume of activity strengthened in 6 of the 8 sub-branches.

Specifically, the largest increase was recorded in books – stationery (+14.4% against +13.7% in the first ten months of 2021), furniture (11.6% against 19.5%), and medicines – cosmetics (9.8% against 21.0%). There was a milder increase in department stores (3.3% against 0.2%), fuel (2.7% against -1.6%), and clothing - footwear (1.7% against 18.8%). By contrast, there was a decrease in supermarkets (-2.0% against +3.3% in 2021) and in food – beverages – tobacco (-1.3% against a 12.1% increase in the first ten months of 2021).

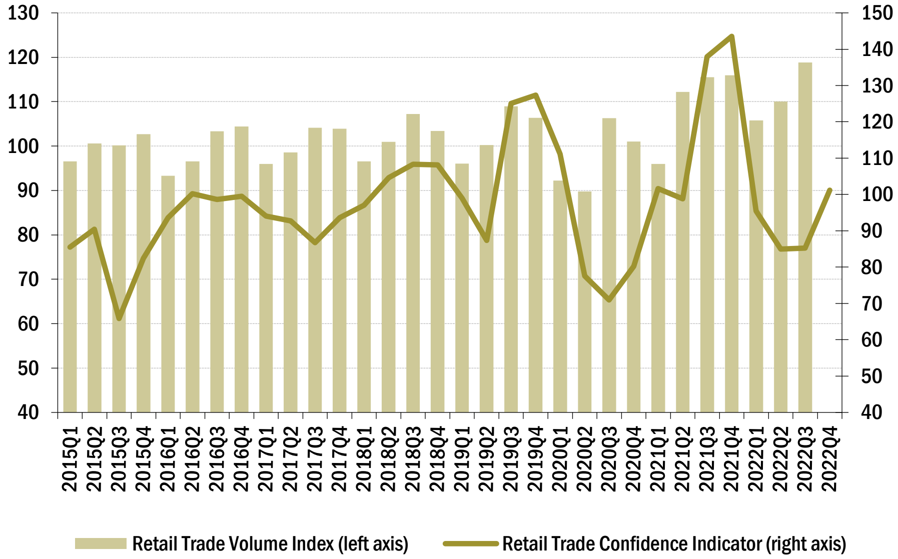
Expectations in the retail sector for the whole of 2022, as reflected in the leading indicators of IOBE's Business and Consumer Surveys, deteriorated compared to 2021. In 2022 the relevant indicator decreased by 5.1 points, while in 2021 it had increased by 11.8 points.

In terms of particular activities, expectations deteriorated in motor vehicles – spare parts (-10.5 against and increase by 31.3 in 2021), food – beverage – tobacco (-2.0 points following a decrease of 32.4 points in 2021), and household equipment (-0.2 points against 30 points growth one year earlier). By contrast, expectations strengthened only in textiles - clothing (3.3 points against a fall of 41.3 points in 2021), while expectations in department stores were unchanged, having declined by 24.7 points in 2021 compared to a year earlier.

Figure 3.6

Retail Trade Volume Index (2010=100) and Retail Trade Confidence Indicator (1996-2006=100)

3.9% increase in retail volume in the first ten months of 2022. A decline in the expectations indicator for 2022 as a whole.



Sources: ELSTAT, IOBE

Table 3.3

Volume Index in Retail Trade, annual changes

Category of Retail Trade Stores	Volume Index (2010=100)				
	Jan.-Oct. 2020	**Jan.-Oct. 2021**	**Jan.-Oct. 2022**	Change 2021/**2020**	Change 2022/**2021**
Overall Index	98.9	107.5	111.7	8.7%	3.9%
Overall Index (excluding automotive fuels and lubricants)	102.3	112.0	114.8	9.4%	2.5%
Store Categories					
Supermarkets	110.7	114.3	112.1	3.3%	-2.0%
Department Stores	87.8	88.0	90.8	0.2%	3.3%
Automotive Fuels	84.3	82.9	85.2	-1.6%	2.7%
Food – Drink – Tobacco	78.6	88.2	87.0	12.1%	-1.3%
Pharmaceuticals – Cosmetics	115.8	140.1	153.8	21.0%	9.8%
Clothing – Footwear	92.4	109.7	111.5	18.8%	1.7%
Furniture – Electric Equipment – H. Appliances	112.0	133.8	149.4	19.5%	11.6%
Books – Stationary	119.5	135.8	155.4	13.7%	14.4%

Source: ELSTAT

Specifically for vehicles – spare parts, the business sentiment indicator stood at 110.9 points in 2022, compared with 122.2 points in 2021 with a drop of 9.3%. In the last quarter of 2022, the index fell by 6.2% as market problems intensified. For 2022 as a whole, the current sales balance returned to negative levels (-24 points), with a significant drop in the proportion of those reporting increased sales and an increase in companies reporting reduced sales. Half of the companies estimate that stocks are reduced, with continued problems regarding the availability of vehicles. The balance of orders turned negative again and stood at -10 points, compared to +18 in 2021, with a strong increase in those expecting a drop in orders in the coming period. In the balance for sales expectations, the index became marginally negative, compared with +24 points in 2021, with a decline in the share of positive expectations. On the employment side, strong signs of stabilisation remain, while in prices, 70% of the firms were expecting prices to grow in the coming period, a direct result of broader developments in the economy (energy costs, supply chain disruption).

Table 3.4

Business Confidence Indicators in Retail Trade (1996-2006=100)

	2020	2021	2022	Change 2021/2020	Change 2022/2021
Food-Drinks-Tobacco	107.0	74.6	72.6	-32.4	-2.0
Textiles - Clothing – Footwear	55.9	97.2	100.5	41.3	3.3
Household Appliances	64.3	94.4	94.2	30.1	-0.2
Vehicles-Spare Parts	81.5	112.8	102.3	31.3	-10.5
Department Stores	96.9	72.2	72.2	-24.7	0.0
Total Retail Trade	**85.0**	**96.8**	**91.7**	**11.8**	**-5.1**

Source: IOBE

Wholesale trade

In the first nine months of 2022, the Wholesale turnover index increased by 22.7% against a milder increase by 15.3% a year earlier. In the third quarter, the index increased by 27.7% (as opposed to 27.3% last year). A significant part of the increase is due to inflationary trends that were evident in 2022.

Services

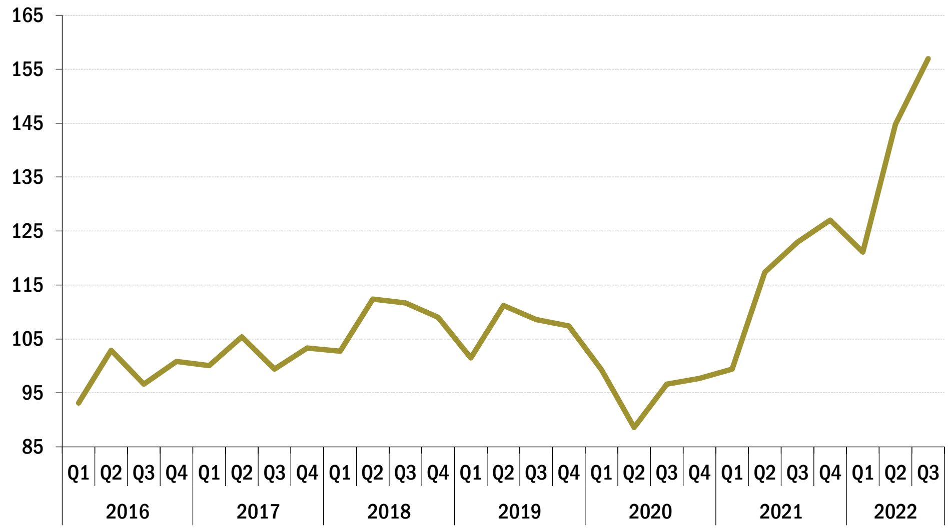
In the first nine months of 2022, turnover in services declined in four out of their 13 branches compared to the same period in 2021. However, among the many sectors that moved better than last year, the improvement appears to be slowing down significantly.

The largest increase was recorded in consultancy - accounting (+17.8% following a corresponding increase of 17.1% a year earlier), cleaning activities (+14.4% against +8.0%), and data processing - information services (11.8% against 32.5%). Next came advertising services (5.4% instead of 19.7%), computer services (5.2% against +18.6%), and employment-related activities (2.0% against 17.1%). Turnover declined in courier services (-9.5% instead of +11.2%), publishing activities (-6.3% against +19.2% a year earlier), other scientific and technical activities (-5.3% against +9.9%), and office administrative activities (-4.5% against +23.5%).

Figure 3.7

Turnover Index in Wholesale Trade

Increase in turnover in Wholesale Trade by 22.7% in the first nine months of 2022 against an increase of 15.3% in 2021



Source: ELSTAT

According to recent trends in the leading indicators of IOBE's business and consumer surveys for the whole of 2022, expectations improved in three of the four examined branches of services. Nevertheless, the overall sector indicator strengthened by only 2 points against a higher increase of 28.8 points in the whole of 2021.

The mild increase in the overall index is solely due to a decline of the indicator in financial institutions, where expectations weakened by 16.9 points after having increased by 17.5 points in 2021. In the remaining sectors, the indicator increased by 19.9 points in hotels (after a stronger increase of 40.0 points in 2021), IT (+7.6 points against +10.3 in 2021), and miscellaneous services to business (+4.5 points compared to an increase of 36.4 in 2021). In these sectors, expectations increased in 2022, but at a slower pace compared to 2021.

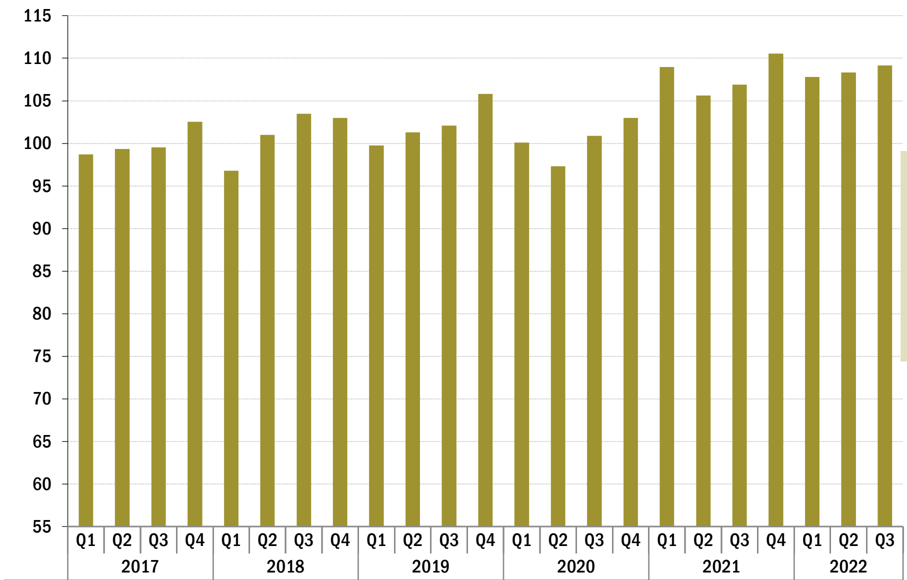
Table 3.5

Turnover Index in Services (2010=100)

	2020	2021	2022	Change 2021/2020	Change 2022/2021
Hotels – Restaurants – Travel Agencies	62.9	102.9	122.8	40	19.9
Financial Intermediation	104.9	122.4	105.5	17.5	-16.9
Other Business Services	72	108.4	112.9	36.4	4.5
Information Services	82.4	92.7	100.3	10.3	7.6
Total Services	**76.0**	**104.8**	**106.8**	**28.8**	**2**

Figure 3.8

Turnover Index in Telecommunications (branch 61)

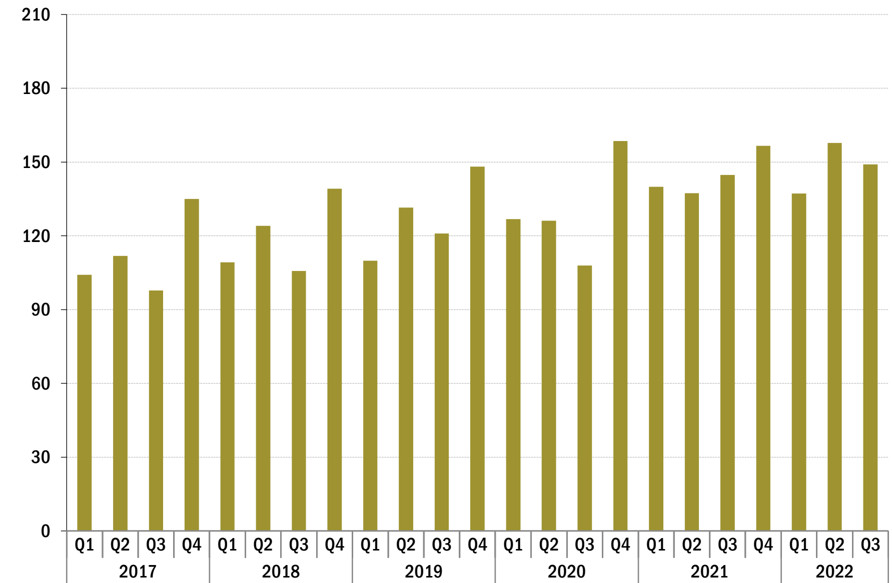


	2017				2018				2019				2020				2021				2022		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Index	99	99	100	103	97	101	103	103	100	101	102	106	100	97,3	101	103	108,	105,	107	110,	107,	108,	109,

1.2% increase in the first nine months of 2022 compared to a year earlier

Figure 3.9

Turnover Index in Computer Programming, Consultancy and Related Activities (branch 62)



	2017				2018				2019				2020				2021				2022		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Index	104	112	98	135	109	124	106	139	110	132	121	148	127	126	108	159	140	137	145	156	137	157	149

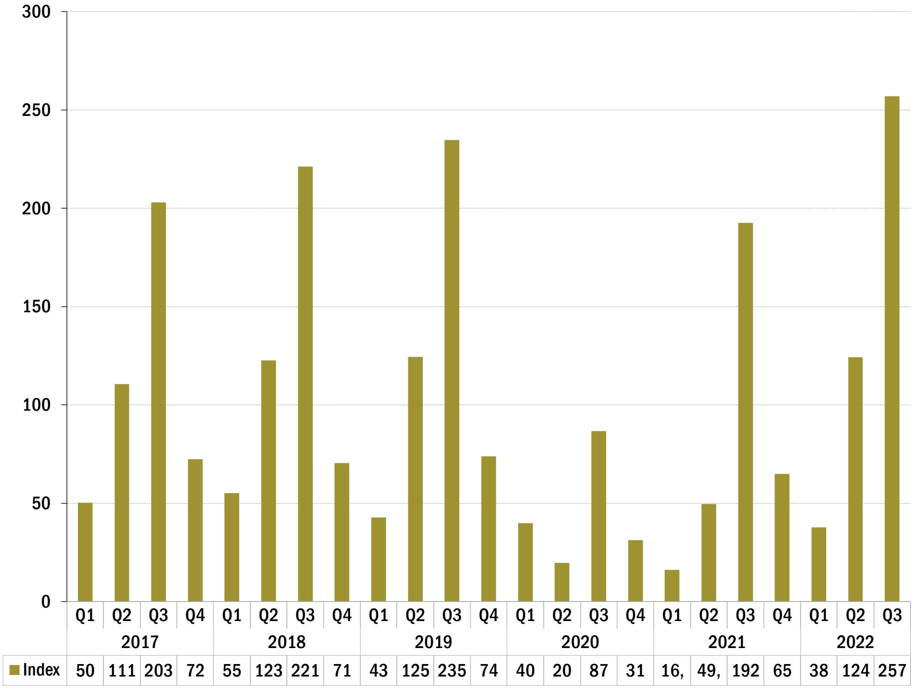
An increase of 5.2 % in the first nine months – at a notably slower rate than in 2021 (17.0%)

Source: ELSTAT

Figure 3.10

Turnover Index in Tourism (Accommodation and Food Services Activities, branches 55 & 56)

An increase of 62.3% in the first nine months of 2022. A record high level of at least 10 years reached in the third quarter. Further increase (+33.5%) compared to a very good third quarter of 2021.



Source: ELSTAT

3.3 External balance

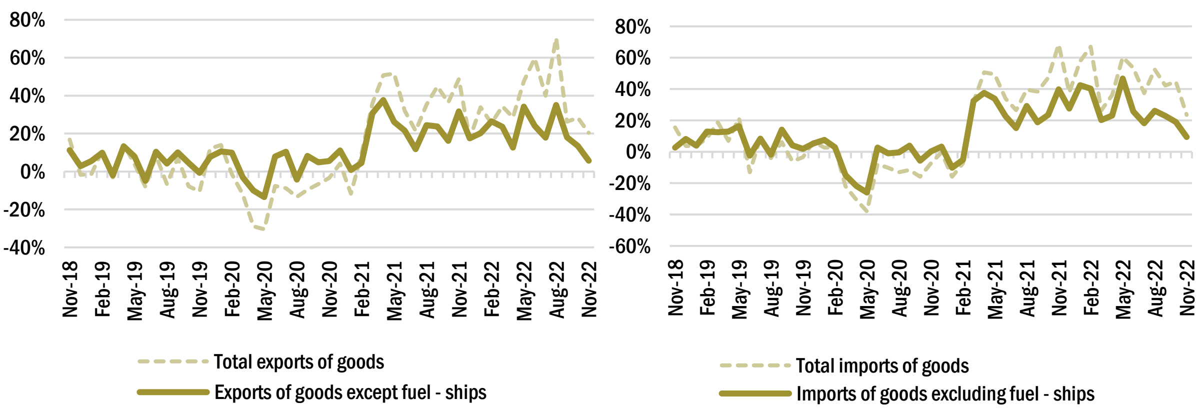
A. Analysis of exports and imports from national accounts

- Strong growth of exports of products in nominal terms in the first eleven months of 2022, at a rate of 37.8%, and imports at a rate of 45.7%. Milder, but strong growth in exports excluding petroleum products (+20.3%).
- Increase in all product categories, with the largest increase in fuel exports and industrial products.
- Widening of the trade deficit compared to 2021 by 58.8%, to EUR 35.2 billion.
- Rise in demand from euro area countries (+32.6% or + EUR 4.8 billion) and the Middle East & North Africa (+31.2% or EUR 1.5 billion), and a decline from Asian countries (-2.4% or EUR 62.5 million).

Exports of goods stood in January-November 2022 at EUR 50.1 billion, compared with EUR 36.4 billion a year ago, an increase of 37.8%, in current prices. Excluding exports of petroleum-ships, remaining exports increased by 20.3% to EUR 31.5 billion, from EUR 26.2 billion in 2021. Imports increased more in the same period, by 45.7% at current prices, to EUR 85.3 billion, from EUR 58.5 billion a year earlier. Excluding imports of petroleum-ships, remaining imports increased by 25.6% to EUR 54.9 billion, from EUR 43.7 billion in 2021. As a result of the above trends in the main components of the external balance of products, the trade deficit stood EUR 13.0 billion higher than in the corresponding period 2021 (+58.8%), at EUR 35.2 billion, from EUR 22.1 billion.

Figure 3.11

Total exports-imports of goods and exports-imports of goods except fuels and ships (current prices)



Source: ELSTAT, Processing: IOBE

Exports except petroleum products – ships stood at EUR 31.5 billion in January-November 2022, 20.3% higher than in 2021. Imports except petroleum products – ships in the same period stood at EUR 54.9 billion, 25.6% higher than in 2021.

In greater detail, exports of agricultural products increased by 19.6% at current prices between January and November 2022, to EUR 8.2 billion, up from EUR 6.9 billion in 2021. Fuel exports recorded the largest nominal increase, by 81.2%, to EUR 18.5 billion, from EUR 10.2 billion in 2021. Exports of these two categories account for 53.4% of the value of domestic exports this year, up from 47.1% a year earlier. The increase in agricultural products was mainly driven by a 23.4% increase in demand for animal and plant fats and oils, the value of which stood at EUR 842.3 million, from EUR 682.5 million in 2021, while their share of total exports stood at 1.7% in 2022, down from 1.9% in 2021. In the food-live animal category, which accounts for around 77.1% of agricultural exports, exports increased by 18.8% to EUR 6.4 billion from EUR 5.3 billion a year ago. In beverages and tobacco products, which account for 12.6% of agricultural exports, demand stood in the first eleven months of 2022 at EUR 1.0 billion, 21.4% higher than in the same period of 2021.

Table 3.6

Exports per one-digit category at current prices, January – November (€ million)*

Product	Value		% Change	% Share	
	2022	2021	22/21	2022	2021
AGRICULTURAL PRODUCTS	8,236.2	6,886.3	19.6%	16.4%	18.9%
Food and Live Animals	6,354.0	5,347.6	18.8%	12.7%	14.7%
Beverages and Tobacco	1,039.9	856.3	21.4%	2.1%	2.4%
Animal and vegetable oils and fats	842.3	682.5	23.4%	1.7%	1.9%
RAW MATERIALS	1,742.6	1,685.6	3.4%	3.5%	4.6%
Non-edible Raw Materials excluding Fuels	1,742.6	1,685.6	3.4%	3.5%	4.6%
FUELS	18,537.4	10,229.6	81.2%	37.0%	28.1%
Mineral fuels, lubricants, etc	18,537.4	10,229.6	81.2%	37.0%	28.1%
INDUSTRIAL PRODUCTS	20,978.0	17,099.9	22.7%	41.9%	47.0%
Chemicals and Related Products	5,601.7	5,216.1	7.4%	11.2%	14.3%
Manufactured goods classified chiefly by raw material	7,536.8	5,708.2	32.0%	15.0%	15.7%
Machinery and transport equipment	4,454.9	3,501.1	27.2%	8.9%	9.6%
Miscellaneous manufactured articles	3,384.5	2,674.6	26.5%	6.8%	7.4%
Other and transactions not classified by category	618.7	473.8	30.6%	1.2%	1.3%
TOTAL EXPORTS	50,112.8	36,375.3	37.8%	100.0%	100.0%

* Provisional data

Source: Eurostat

Exports of industrial products considerably strengthened in January-November 2022 (+22.7%), with their value reaching EUR 21.0 billion, from EUR 17.1 billion in 2021. This development was mainly driven by an increase in exports for industrial goods classified by raw material by 32.0%, from EUR 5.7 billion to EUR 7.5 billion. A strengthening in international demand was also recorded for chemicals and related products by 7.4%, with their value standing at EUR 5.6 billion. The exports of machinery and transport equipment also had a strong increase, by 27.2% to EUR 4.5 billion from EUR 3.5 billion, while exports of miscellaneous industrial goods also increased (+26.5%, to EUR 3.4 billion).

Finally, exports of raw materials increased by 3.4%, to EUR 1.74 billion, from EUR 1.68 billion a year earlier, while exports of items and transactions not classified elsewhere increased by 30.6%, from EUR 473.8 million in 2021 to EUR 618.7 million in 2022.

In terms of trends by geographical area, the exports of goods widened strongly in the first eleven months of 2022 in euro area countries by 32.6%, approaching EUR 19.5 billion, from EUR 14.7 billion in the same period of 2021. The EU as a whole saw an increase of 40.6% or EUR 8.0 billion, with exports to this region reaching EUR 27.7 billion, up from EUR 19.7 billion a year earlier. Among the euro area countries that absorb the bulk of Greek exports, there was a significant expansion to Germany, by 22.0%, from EUR 2.7 billion to EUR 3.3 billion, and a decrease to France by 11.6% from EUR 1.8 billion to EUR 1.6 billion.

Among the other countries of the European Union, to which total exports increased by 64.7% or EUR 3.2 billion to EUR 8.1 billion, Bulgaria continued to be the main export destination, with an increase of 123.7% or EUR 2.2 billion compared to 2021. Upward trends were recorded towards two other countries which absorb a significant share of Greek exports - Romania (+33.8% or EUR 425.0 million to EUR 1.7 billion) and Poland (+26.6% or EUR 179.3 million to EUR 853.3 million).

There was a strong boost in Greek export demand to the rest of Europe, by 48.7%, from EUR 6.3 billion in the eleven months of 2021 to EUR 9.3 billion one year later. This was primarily seen in Türkiye, where exports increased by 17.0%, from EUR 1.9 billion to EUR 2.2 billion, and secondarily from the United Kingdom, with an increase of 69.1%, from EUR 1.2 billion in 2021 to EUR 2.0 billion one year later.

Exports to North America moved strongly, by 37.2%, from EUR 1.8 billion in 2021 to EUR 2.5 million in 2022, mainly due to an increase in exports to the US by 40.2%, from EUR 1.5 billion in 2021 to EUR 2.1 billion in 2022, and to Canada, by 38.4% or 68.7 million. By contrast, exports to Mexico decreased (-0.6 %).

Exports to Central-Latin American markets increased by 39.8% in January-November 2022, with a value of EUR 391.3 million from EUR 280.0 million in the same period in 2021. The increase in exports to the countries of the region is mainly due to a 53.4% increase in demand for Greek products from Panama, which reached a value of EUR 189.5 million from EUR 123.5 million a year earlier. Exports to Brazil declined (-24.6% or EUR -16.7 million).

Exports to the countries of the Middle East and North Africa also rose by 31.2% to EUR 6.3 billion from EUR 4.8 billion, mainly due to a sharp increase in exports to Libya (+97.7%), where exports stood at EUR 1.7 billion in January-November 2022, compared with EUR 880.7 million a year earlier, but also to Lebanon (+38.5%), where exports increased by EUR 403.1 million in 2022 compared to 2021. To two major destinations in the Middle East, exports to the United Arab Emirates increased by 1.1% to EUR 322.7 million, while exports to Saudi Arabia fell by 6.3% to EUR 525.6 million.

Table 3.7

Exports by destination, January-November 2022 (€ million)*

ECONOMIC UNIONS – GEOGRAPHIC REGION	EXPORTS		% CHANGE
	2022	2021	22/21
EU (27)	27,674.6	19,681.6	40.6%
Euro Area	19,548.6	14,746.3	32.6%
G7	9,418.4	7,511.3	25.4%
North America	2,429.6	1,771.4	37.2%
BRICS	910.0	1,080.0	-15.7%
Middle East & North Africa	6,299.1	4,800.0	31.2%
Oceania	244.4	222.4	9.9%
Central-Latin America	391.3	280.0	39.8%
Asia	2,516.6	2,579.2	-2.4%

* Provisional data

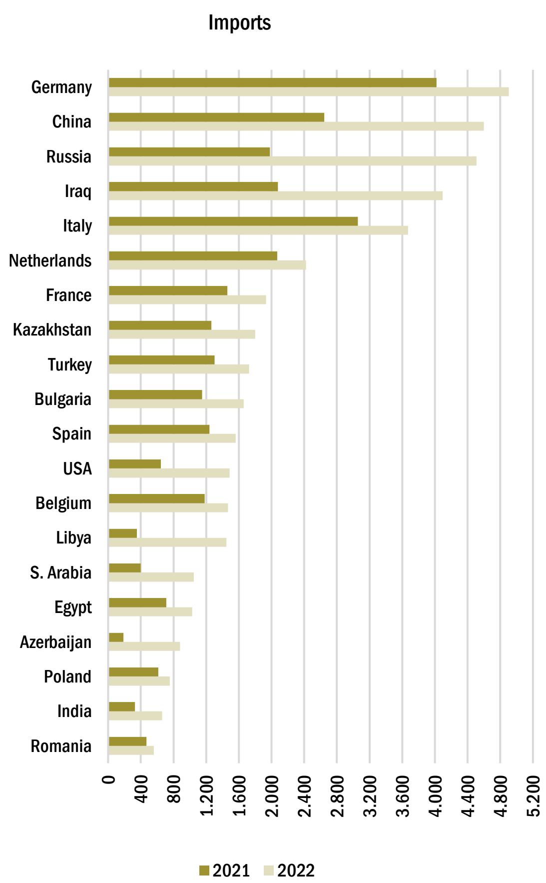
Source: Eurostat

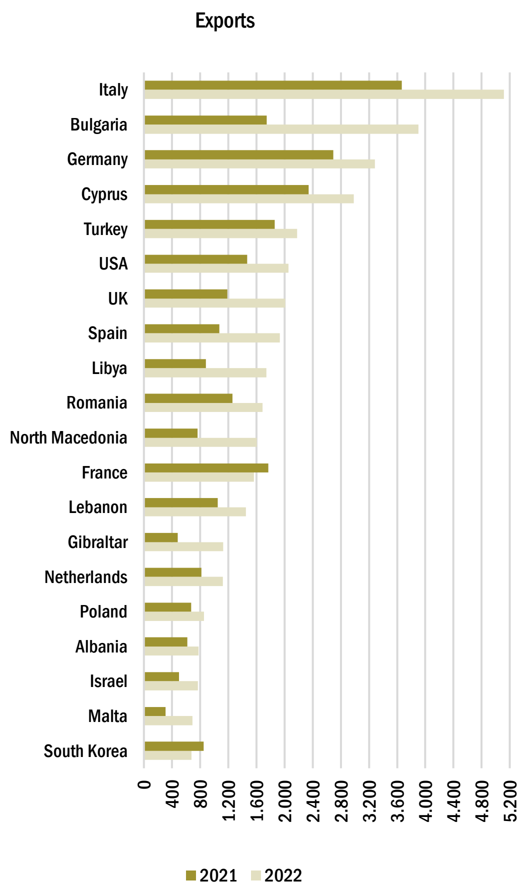
By contrast, demand for Greek goods weakened in Asian countries, where exports declined by 2.4% in the first eleven months of 2022, to EUR 2.5 billion from EUR 2.6 billion in 2021. This development is mainly due to a 20.4% drop in exports to South Korea, from EUR 847.8 million in 2021 to EUR 675.0 million in 2022. Similarly, there was a sharp decline in demand from China (-40.4%, to EUR 383.1 million from EUR 642.7 million in 2021).

The flow of exports of Greek products to Oceania increased by 9.9%, with their value in the eleven months of 2022 standing at EUR 244.4 million from EUR 222.4 million a year earlier. The rise came from a similar trend in Australia, where exports grew by 11.1% to EUR 216.1 million from EUR 194.6 million last year. Similarly, there was an increase in New Zealand (+1.7%).

Figure 3.12

Countries with the largest share in the exports and imports of Greek goods, January – November 2022 (million €, current prices)





Source: Eurostat. Processing: IOBE

The strongest growth in the exports of goods in the first eleven months of 2022 in absolute terms to Bulgaria (+EUR 2.2 billion). Biggest drop to China (-EUR 259.6 million). Italy's share of exports remains the largest. The Highest import growth in 2022 in absolute terms from Russia (+EUR 4.7 billion), the largest decrease from Ireland (-EUR 671.5 million).

To sum up, the strong boost of Greece's exports in January-November 2022 by 37.8 % at current prices came from the increase in petroleum products (+81.2%), industrial products (+24.3%), and agricultural products (+19.6%). The strong increase in the value of Greek exports is due to higher prices of goods due to global price increases. The top five countries with the highest demand for Greek products are Italy, Bulgaria, Germany, Cyprus, and Türkiye. High prices have boosted the value of exports, but at the same time, they pushed the trade deficit to EUR 35.2 billion, which continues to widen and hurt the economy. Against the backdrop of high inflation in the European economy and the energy crisis, Greek exports mark a new record of openness in 2022.

B. Balance of payments

- A significant increase in the current account deficit in the first ten months of 2022 to EUR 13.6 billion, compared with EUR 7.3 billion in 2021.
- A significant deterioration in the goods account, a decline in the primary and secondary income accounts too, partly offset by the surplus in the services account.

Current Account

January – October 2022

In the first ten months of 2022, the Current Account (CA) had a deficit of EUR 13.6 billion (at 7.1% of GDP in the first nine months, compared with 4.6% in 2021), up from 2021 (EUR 7.3 billion).[17] A significant deterioration of the balance came from the goods account, with the primary and secondary income accounts also falling, while the surplus in the services account partly offset losses.

In greater detail, in January-October, the deficit of the goods account stood at EUR 32.2 billion, higher by EUR 11.7 billion compared to 2021, owing to an almost double increase in imports against exports. Exports increased to EUR 44.4 billion (EUR 15.6 billion), with fuel exports strengthening by EUR 6.5 billion and other goods expanding by EUR 6.0 billion. Imports of goods escalated to EUR 76.6 billion (EUR 24.3 billion), with fuel imports increasing by EUR 13.1 billion and imports excluding petroleum and ships growing by EUR 11.0 billion. The deficit in the goods account excluding fuel and ships stood at EUR 21.4 billion in 2022, widening by EUR 5.0 billion.

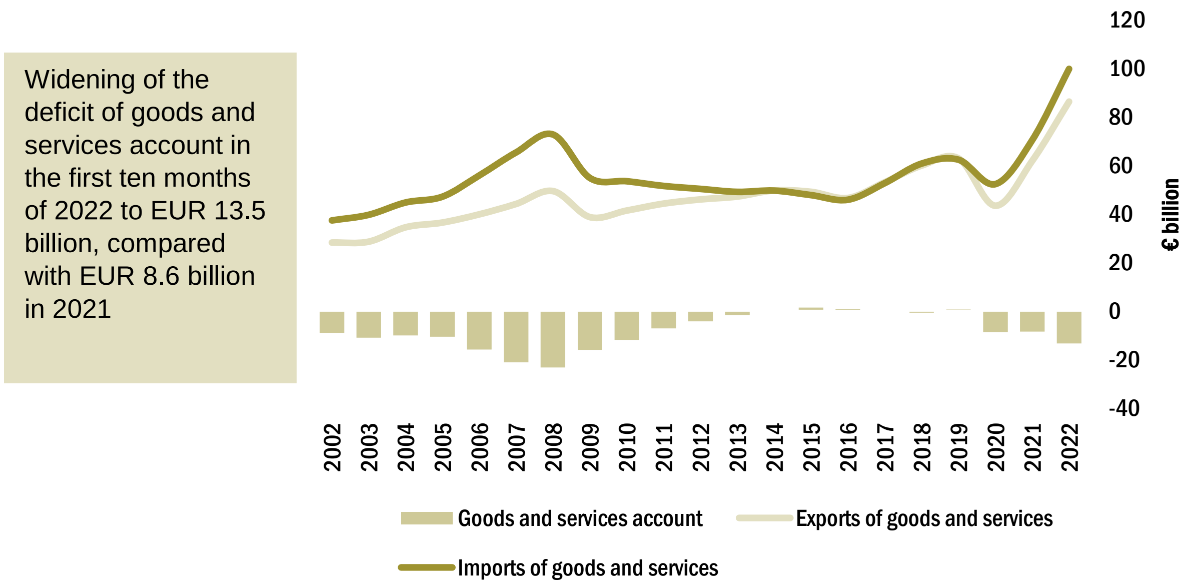
The services account increased significantly in the first ten months of 2022 to the highest recorded level since 2002. Specifically, the surplus reached EUR 18.7 billion, up by EUR 6.8 billion in 2021. Total receipts from Services stood at EUR 41.8 billion, up by EUR 11.8 billion year-on-year, while payments stood at EUR 23.0 billion, with an increase of EUR 5.1 billion. Travel receipts reached EUR 17.1 billion, up by 70% to 97% of 2019 levels, while transport services stood at EUR 19.5 billion, at a historically high level. Finally, receipts from other services reached EUR 5.2 billion, up by 11%. Payments for travel services increased by 84%, to EUR 1.6 billion, payments for transport services increased by 32% to EUR 16.1 billion, while other services payments reached EUR 5.3 billion, up 8%.

The surplus in the primary income account decreased significantly, to EUR 52 million in 2022, compared with EUR 498 million in 2021. Receipts increased to EUR 5.9 billion, higher by EUR 272 million, while payments increased to EUR 5.9 billion, expanding by EUR 719 million.

The secondary income account recorded a deficit in the first ten months of EUR 119 million, compared with a surplus of EUR 805 million in 2021, with receipts falling to EUR 3.8 billion (EUR -134 million), while payments increased to EUR 3.9 billion (EUR +790 million).

Figure 3.13

Imports-Exports of Goods and Services (January – October), 2002-2022



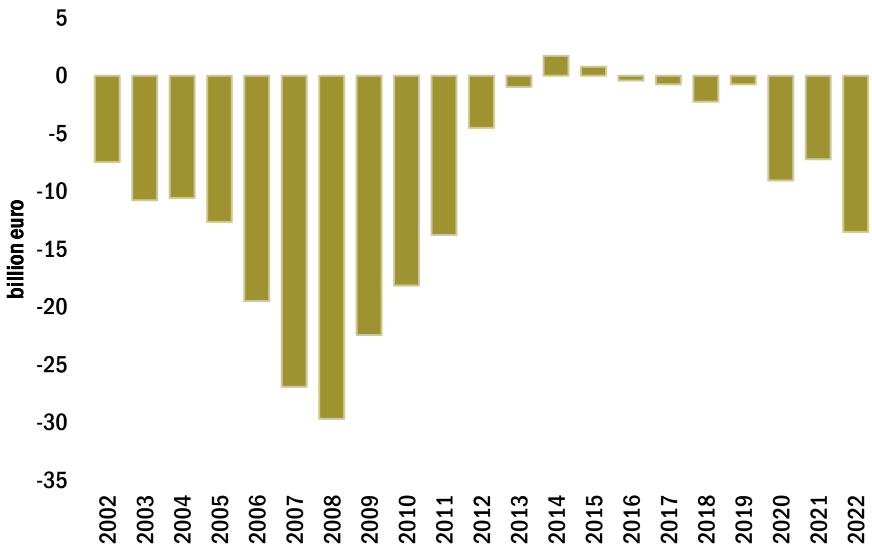
Source: Bank of Greece - Data processing IOBE

[17] The figures in brackets reflect the absolute change in relation to the corresponding period of the previous year, unless otherwise stated.

Figure 3.14

Current Account (January – October), 2002-2022

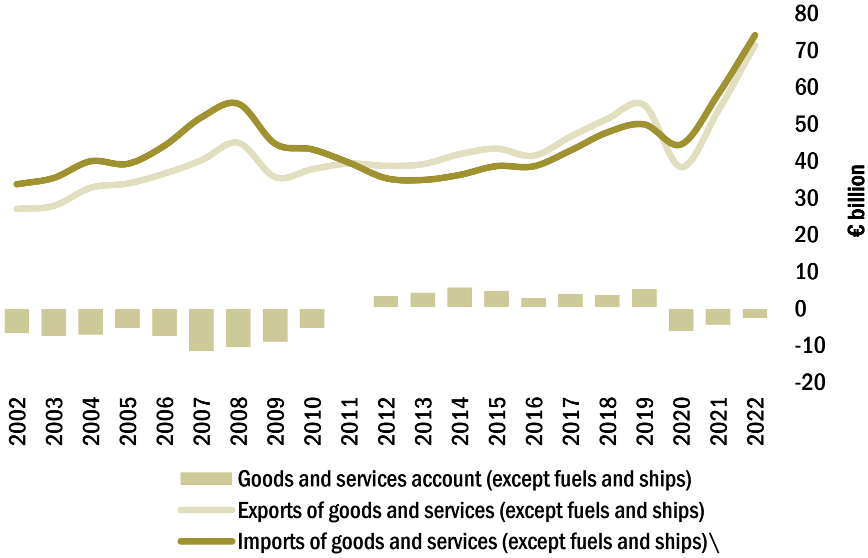
At EUR 13.6 billion the current account deficit in January-October 2022, up from EUR 7.3 billion in 2021



Source: Bank of Greece - Data processing IOBE

Figure 3.15

Imports-Exports of Goods excluding fuel and ships (January – October), 2002-2022



A shrinking deficit in the account of goods and services excluding fuel and ships to EUR 2.7 billion, from EUR 4.5 billion in 2021

Source: Bank of Greece, Data processing IOBE

Capital Account

The surplus of the capital account[18] contracted to EUR 2.6 billion in the first ten months, compared with EUR 3.1 billion in 2021, with a decrease in receipts to EUR 3.2 billion and payments to EUR 505 million. The decrease in 2022 is due to their high level in 2021, as the pre-financing under the Recovery and Resilience Facility (RRF) was disbursed in August that year. Finally, the current and capital account, which reflects the relationship of an economy with the rest of the world as a lender or borrower, was in deficit, at EUR 10.9 billion, compared with EUR 4.1 billion in 2021.

Financial Account

The financial account stood at a deficit of EUR 9.0 billion in the first ten months, compared with a deficit of EUR 3.5 billion in 2021. In sub-accounts, residents' net claims on direct investment from abroad increased by EUR 1.1 billion, while net liabilities to non-residents (non-residents' investment in the country) strengthened by EUR 5.7 billion. Under portfolio investment, residents' assets abroad increased by EUR 9.8 billion, and liabilities to non-residents strengthened by EUR 160 million, mainly owing to the purchase of bonds and notes. Under other investments, residents' foreign assets decreased by EUR 2.4 billion, mainly on account of a decrease of EUR 6.6 billion in deposit and repo investments, while liabilities increased by EUR 9.5 billion. Finally, the country's foreign reserves stood at EUR 11.1 billion at the end of October 2022.

[18] The capital account shows capital transfers, i.e., unilateral receipts and payments between residents and non-residents linked to fixed capital formation. Capital transfers mainly comprise part of the transfers (receipts) from the Community budget of the European Union to the General Government (withdrawals from the Structural Funds – except for the European Social Fund – and from the Cohesion Fund under the CSFs).

Table 3.8

Balance of payments (€ million)

		January – October			October		
		2020	2021	2022	2020	2021	2022
I	**CURRENT ACCOUNT (I.A + I.B + I.C + I.D)**	**-9.086,2**	**-7.253,9**	**-13.551,5**	**-735,7**	**-1.150,7**	**-2.703,8**
	GOODS AND SERVICES ACCOUNT (I.A + I.B)	**-8.921,0**	**-8.557,1**	**-13.492,7**	**-569,3**	**-814,6**	**-2.525,9**
I.A	**GOODS ACCOUNT (I.A.1 - I.A.2)**	**-15.563,4**	**-20.506,8**	**-32.214,6**	**-1.438,2**	**-2.497,8**	**-4.078,2**
	Oil balance	-2.722,8	-4.040,7	-10.567,3	-140,0	-585,5	-1.675,8
	Trade balance excluding oil	-12.840,6	-16.466,1	-21.647,4	-1.298,2	-1.912,3	-2.402,4
	Ships balance	-66,2	-30,1	-256,7	10,5	4,3	-150,8
	Trade balance excluding ships	-15.497,3	-20.476,7	-31.958,0	-1.448,7	-2.502,1	-3.927,4
	Trade balance excluding oil and ships	-12.774,4	-16.436,0	-21.390,7	-1.308,7	-1.916,6	-2.251,6
I.A.1	**Exports of Goods**	**23.611,0**	**31.835,1**	**44.421,2**	**2.514,8**	**3.640,9**	**4.669,6**
	Oil	4.876,6	8.145,8	14.689,6	443,4	1.038,4	1.633,8
	Ships (sales)	74,5	86,8	90,0	18,4	9,9	6,8
	Goods excluding oil and ships	18.659,9	23.602,5	29.641,5	2.053,0	2.592,7	3.029,0
I.A.2	**Imports of Goods**	**39.174,5**	**52.341,9**	**76.635,8**	**3.953,0**	**6.138,7**	**8.747,8**
	Oil	7.599,4	12.186,5	25.256,9	583,3	1.623,9	3.309,5
	Ships (buying)	140,7	116,9	346,7	7,9	5,6	157,6
	Goods excluding oil and ships	31.434,3	40.038,4	51.032,2	3.361,8	4.509,3	5.280,6
I.B	**SERVICES ACCOUNT (I.B.1-I.B.2)**	**6.642,4**	**11.949,7**	**18.721,9**	**868,9**	**1.683,2**	**1.552,3**
I.B.1	**Receipts**	**19.657,0**	**29.927,3**	**41.805,0**	**2.012,7**	**3.759,7**	**4.312,3**
	Travel	4.213,7	10.045,6	17.114,8	553,6	1.294,3	1.510,4
	Transportation	11.792,3	15.182,4	19.488,6	1.027,3	1.916,3	2.221,7
	Other services	3.650,9	4.699,3	5.201,6	431,8	549,2	580,2
I.B.2	**Payments**	**13.014,5**	**17.977,6**	**23.083,1**	**1.143,8**	**2.076,6**	**2.760,0**
	Travel	723,2	883,7	1.678,4	64,0	161,5	202,2
	Transportation	8.418,6	12.162,1	16.055,9	737,8	1.505,7	1.999,4
	Other services	3.872,8	4.931,8	5.348,8	342,0	409,4	558,4
I.C	**PRIMARY INCOME ACCOUNT (I.C.1-I.C.2)**	**-327,2**	**498,2**	**51,5**	**-26,5**	**-156,2**	**-28,0**
I.C.1	**Receipts**	**5.428,9**	**5.642,3**	**5.914,4**	**325,0**	**359,8**	**409,9**
	From work (wages, compensation)	168,9	173,1	185,0	18,2	20,5	17,7
	From investments (interest, dividends, profit)	2.309,7	2.457,2	2.919,4	225,5	250,7	289,7
	Other primary income	2.950,3	3.012,1	2.810,0	81,2	88,6	102,5
I.C.2	**Payments**	**5.756,1**	**5.144,1**	**5.862,8**	**351,5**	**516,1**	**437,9**
	From work (wages, compensation)	1.134,9	1.069,7	1.251,1	100,8	118,3	131,6
	From investments (interest, dividends, profit)	4.261,8	3.640,2	4.028,6	222,2	363,0	274,8
	Other primary income	359,4	434,2	583,2	28,5	34,8	31,5
I.D	**SECONDARY INCOME ACCOUNT (I.D.1-I.D.2)**	**162,0**	**805,0**	**-110,3**	**-140,0**	**-179,8**	**-149,9**
I.D.1	**Receipts**	**3.054,2**	**3.968,1**	**3.834,5**	**152,2**	**127,3**	**157,6**
	General government	1.731,4	2.798,4	2.421,7	27,1	29,5	34,2
	Other sectors	1.322,8	1.169,7	1.412,8	125,1	97,8	123,4
I.D.2	**Payments**	**2.892,2**	**3.163,2**	**3.944,9**	**292,2**	**307,1**	**307,5**
	General government	1.545,0	1.944,3	2.620,2	161,6	197,0	178,4
	Other sectors	1.347,2	1.218,9	1.324,7	130,6	110,1	129,1
II	**CAPITAL ACCOUNT (II.1-II.2)**	**1.838,4**	**3.105,5**	**2.653,6**	**506,8**	**-103,6**	**135,4**
II.1	**Receipts**	**2.205,5**	**3.945,2**	**3.159,0**	**560,5**	**14,1**	**158,1**
	General government	2.055,3	3.436,7	2.094,9	555,3	0,4	53,8
	Other sectors	150,1	508,5	1.064,1	5,2	13,8	104,3
II.2	**Payments**	**367,1**	**839,7**	**505,4**	**53,6**	**117,7**	**22,7**
	General government	3,7	3,9	6,0	0,4	0,4	0,6
	Other sectors	363,4	835,8	499,4	53,3	117,4	22,1
	BALANCE OF CURRENT AND CAPITAL ACCOUNT (I+II)	***-7.247,8***	***-4.148,4***	***-10.897,9***	***-228,9***	***-1.254,2***	***-2.568,4***
III	**FINANCIAL ACCOUNT (III.A+III.B+III.C+III.D)**	**-6.476,4**	**-3.487,5**	**-8.996,7**	**-115,9**	**-1.346,9**	**-2.503,7**
III.A	**DIRECT INVESTMENT***	**-1.930,4**	**-3.467,8**	**-4.598,6**	**-143,9**	**-228,8**	**-258,6**
	Assets	428,0	989,4	1.094,1	34,5	36,8	134,0
	Liabilities	2.358,4	4.457,3	5.692,7	178,4	265,7	392,7
III.B	**PORTFOLIO INVESTMENT***	**39.909,3**	**14.532,3**	**9.628,2**	**-9,1**	**266,9**	**-486,0**
	Assets	31.191,2	18.563,6	9.788,0	-45,5	-4,0	-954,9
	Liabilities	-8.718,1	4.031,3	159,8	-36,3	-271,0	-468,9
III.C	**OTHER INVESTMENT***	**-45.599,9**	**-16.973,2**	**-11.915,7**	**2,6**	**-1.311,9**	**-1.844,1**
	Assets	2.766,8	4.315,0	-2.443,7	381,0	720,3	-952,3
	Liabilities	48.366,7	21.288,2	9.472,0	378,4	2.032,3	891,9
	(Loans of general government)	-507,8	-378,6	-1.980,3	-15,3	-18,6	56,1
III.D	**CHANGE IN RESERVE ASSETS****	**1.144,6**	**2.421,3**	**-2.110,7**	**34,5**	**-73,1**	**85,0**
IV	**BALANCE ITEMS (I +II +IV +V = 0)**	**771,4**	**661,0**	**1.901,2**	**113,0**	**-92,7**	**64,7**
	RESERVE ASSETS (STOCK)***				**9.693**	**12.270**	**11.083**

Source: Bank of Greece

* (+) Increase (-) decrease - According to the new balance of payments methodology training BPM6, increases in demand are presented with a positive sign while the decrease in receivables is displayed with a negative sign. Similarly, the increase in liabilities is captured with a positive sign, while the reduction of liabilities with a negative sign.

** (+) Increase (-) decrease - According to the new balance of payments methodology training BPM6, the increase in foreign reserves is now presented with a positive sign, while the reduction of foreign exchange reserves with a negative sign.

* * * Reserve assets, as defined by the European Central Bank, include only monetary gold, the "reserve position" in the IMF, "Special Drawing Rights" and the claims of the Bank of Greece in foreign currency from residents of countries outside the euro area. Conversely, they do not include claims in euro from residents of countries outside the euro area, claims in foreign currency and in euros from residents of euro area countries and the participation of the Bank of Greece in the capital and the reserve assets of the ECB.

3.4 Labour market

- A reduction in the unemployment rate in Q3 2022 to 11.6% from 13.0% in Q3 2021.
- In the first eleven months of 2022 the balance of entries and exits was positive at 64,000, yet lower than in the first eleven months of 2021 (+135,700).
- Higher annual employment growth in the third quarter in education (+36,600 employed), the primary sector (+20,300), water supply - wastewater treatment (+16,900), and Activities of households as employers (+12,300).
- Strongest annual decline in employment in the third quarter in public administration (-15,500 employed) and in Transport-Storage (-10,000).
- Annual increase in the seasonally adjusted wage cost index in the third quarter of 2022 by 1.8% compared to the same quarter of 2021.

According to ELSTAT's Labour Force Survey, the unemployment rate in the third quarter of 2022 fell to 11.6%, down 1.4 percentage points from the unemployment rate in the third quarter of 2021 (13.0%). The number of unemployed decreased to 555,600 from 615,400, down by 9.7% or 59,800. By contrast, the number of employees increased by 2.4% or 97,700, and as a result, it reached 4,126,000 in the third quarter of last year, from 4,118,300 employed in the third quarter of the preceding year. At the same time, the non-seasonally adjusted unemployment rate fell to 11.7% in November 2022, from 13.8% a year earlier. According to data from the ERGANI information system, in November 2022 the negative entry-exit balance increased to 83,600 (202,000 hirings and 285,600 exits), from a negative 79,100 in the same month of 2021 (202,800 and 281,900, respectively), while in the first eleven months of 2022, the balance was positive by 64,000 persons (2,707,200 hirings and 2,643,200 exits), but lower than the positive balance of the first eleven months of 2021 (+135,700).

Unemployment decreased in all countries in the euro area in the third quarter of 2022 except Croatia – which entered the euro area on 1 January 2023. The highest unemployment rate and its strongest decline were recorded in Spain, where it fell to 12.7% from 14.6% (-1.9 percentage points), followed by Greece (from 13.0% to 11.6%, -1.4 percentage points). Next came Italy, where the unemployment rate fell by 1.1 percentage points to 7.7% in the third quarter of 2022, from 8.8% a year earlier. By contrast, the lowest unemployment rate was recorded in Malta and Germany. In the first country, it decreased to 2.9% from 3.3% (-0.4 percentage points) and in the second from 3.4% in the third quarter of 2021 to 3.1% in the third quarter of 2022 (-0.4 percentage points). Next came the Netherlands, where the unemployment rate stood at 3.7% from 4.0% (-0.3 percentage points). In another major euro area economy, France, the unemployment rate shrank to 7.3% in Q3 2022 from 7.9% in Q3 2021, while in Croatia in the same period, it rose to 6.7% from 6.3% (+0.4 percentage points). Finally, in the euro area as a whole (Croatia not included) the unemployment rate fell to 6.6% from 7.4% (-0.8 percentage points).

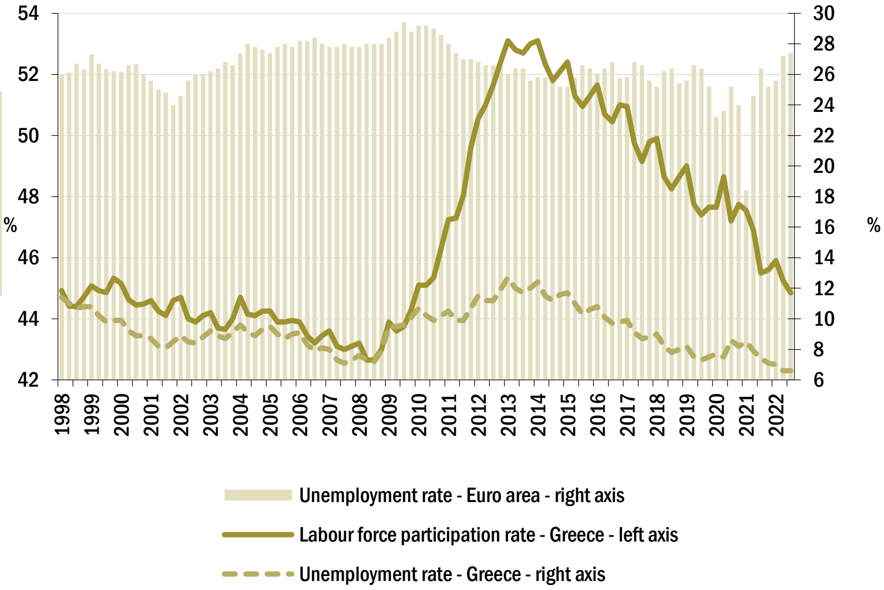
In relation to the evolution of the age-based unemployment rate, as repeatedly reported, it decreases as age increases. In Q3 2022 across all age categories except those aged 15-19 and over 65, the unemployment rate decreased. The strongest decrease, by 4.0 percentage points, took place among people aged 25-29, where the unemployment rate fell to 18.3% from 22.3%. The lowest unemployment rate was seen in people aged over 65, where it increased from 5.8% in the third quarter of 2021 to 7.2% in Q3 2022. By contrast, the highest unemployment rate and its strongest rise in the same period occurred among people aged 15-19, rising to 40.2% from 36.5% (+3.7 percentage points). The mildest decline occurred in the 20-24 age group (-0.9 percentage points, from 28.5% to 27.6%) while in age groups 30-44 (from 13.2% to 11.9%) and 45-64 (8.1% from 9.5%) the decrease was similar (-1.3 and 1.4 percentage points, respectively).

In terms of the duration of unemployment, both the number and the share of long-term unemployed decreased in the third quarter of 2022. The number of long-term unemployed decreased from 415,400 in Q3 2021 to 349,500 in Q3 2022 (-65,900 or -15.9%), while the long-term unemployment rate shrank to 62.9% from 66.4% (-3.5 percentage points).

Figure 3.16

Labour force participation and unemployment rates

Reduction of unemployment in Greece to 11.6% in Q3 2022, from 13.0% in Q3 2021



Sources: ELSTAT – Labour Force Survey, Eurostat

In relation to the evolution of unemployment based on the level of education, it decreases as the level of education increases. In the third quarter of 2022 across all categories of education, the unemployment rate decreased compared to the third quarter of 2021. During this period, the highest unemployment rate, but also the strongest decline, occurred among people who attended some primary school grades or did not go to school at all, where it fell to 28.7% from 37.6% (-8.9 percentage points). On the other hand, the lowest unemployment rate is found among people with a doctorate or postgraduate degree, where it decreased to 7.2% from 7.9% (-0.7 percentage points). The decline in the unemployment rate among people with a higher education degree was strong, by 3.0 percentage points, (9.7% from 12.7%), while the weakest decrease occurred among people with a higher technical-vocational degree as it fell to 11.6% in Q3 2022 from 11.9% a year earlier (-0.3 percentage points).

With regard to trends in the regional dimension of unemployment, in ten regions the unemployment rate decreased and in three regions it increased. The strongest fall in the unemployment rate in the third quarter of 2022 was recorded in the region of Western Greece, where it reached 5.3 percentage points (from 17.4% to 12.1%), while the lowest unemployment rate occurred in the South Aegean region where it fell to 5.1% in Q3 2022 from 10.1% in Q3 2021 (-5.0 percentage points). Next came the unemployment rates in the Ionian Islands and Crete. In the first region, the unemployment rate decreased to 7.3% from 7.6% (-0.3 percentage points), while in the second region to 8.2% from 10.3% (-2.1 percentage points). The highest unemployment rate was recorded in Western Macedonia, where it fell to 19.1% from 19.8% (-0.7 percentage points), while the strongest increase in the unemployment rate, by 1.5 percentage points, occurred in the Peloponnese, where it rose to 12.8% from 11.3% (+1.5 percentage points). Finally, in the region with the largest percentage of the country's population, Attica, unemployment fell to 9.9% from 11.2% (-1.3 percentage points).

As regards the evolution of employment on the basis of position in an occupation, there has been an increase in employment in two categories and a decline in one. The strongest growth in the third quarter of 2022 was recorded in the most populous category of employees, with employment up by 4.8% or 135,800, reaching 2,965,300 from 2,829,500 in the third quarter of 2021. For helpers in a family business, the number of employed increased to 128,100 from 126,500 (+1.3% or +1,600), while among the self-employed it fell by 3,4% or 39,600, to 1,122,700 from 1,162,300.

As regards the evolution of employment by occupation, six occupations saw an increase in employment in the third quarter of 2022 compared to a year ago, and four a decline. The strongest rise was recorded among people practising scientific, artistic, and related professions and among unskilled workers, manual workers, and small-scale professionals. In the former category, employment increased by 10.0% or 81,800 (from 820,000 to 901,800) and in the latter by 25,000 or 9% (to 302,300 from 277,300). The strongest decline in employment occurred among technologists, technical assistants, and related professions, where it amounted to 21,700 (-6.7%, from 323,800 to 302,100), followed by a decrease in the employment of clerical and related workers, which amounted to 13,400 employed or 2.7% (from 448,100 to 474,700). Finally, in the most populous category of employed, service workers and sellers in shops and outdoor markets, employment decreased to 998,900 from 955,700 (-6,800 or -0.7%).

In terms of the employment status, the full and part-time employment moved in the opposite direction. In more detail, full-time employment increased by 126,600 or 3.3% in Q3 2022, reaching 3,907,000 from 3,780,400 in the same quarter of 2021. By contrast, part-time employment decreased by 29,600 or 8.9% to 302,700 from 332,300.

As regards the employment trend at the level of key sectors, everyone saw a rise in the third quarter of 2022 compared to the same quarter of 2021. The primary and secondary sectors had similar increases in employment. In the first, it increased by 4.6% or 20,300 employed, bringing their number to 462,300 from 442,000, while in the second, it went up by 4.3% or 27,100, from 624,200 to 651,300. Finally, in the most populous sector of the economy, the tertiary sector, employment in the same period rose from 3,050,500 to 3,096,600 (+46,100 or +1.5%).

At the level of economic activity branches, 15 saw employment rise, in five it declined, and in one employment remained unchanged. In absolute terms, the strongest growth occurred in the education sector where employment increased by 36,600 employed or 12.5% (from 292,100 in Q3 2021 to 328,700 in Q3 2022), followed by the primary sector where it increased by 20,300 employees or 4.6% (to 462,300 from 442,000). In the sectors of water supply - wastewater treatment and household activities as employers, employment increased by 16,900 (from 23,500 to 40,400, +71.9%) and 12,300 (to 30,100 from 17,800), respectively. By contrast, public administration and transport-storage experienced the strongest drop in employment. In the first, it decreased by 15,500 or by 3.9% (to 380,000 from 395,500), and in the second by 10,000 or 4.5% (from 220,100 to 210,100). In Manufacturing, employment strengthened by 8,800 people or 2.2% (from 404,400 to 413,200), in Construction by 3,300 or 2.3% (to 149,500 from 146,200) while in the sector of accommodation and food services, employment remained unchanged between Q3 2021 - Q3 2022 (445,100 employees).

In conclusion, employment data at the sectoral level show that its rise in the third quarter of 2022 compared to Q3 of 2021 was mainly driven by its rise in the following sectors:

- Education (+36,600 employed)
- Primary sector (+ 20,300)
- Water supply - sewage treatment (+16,900)
- Activities of households as employers (+12,300 employed)

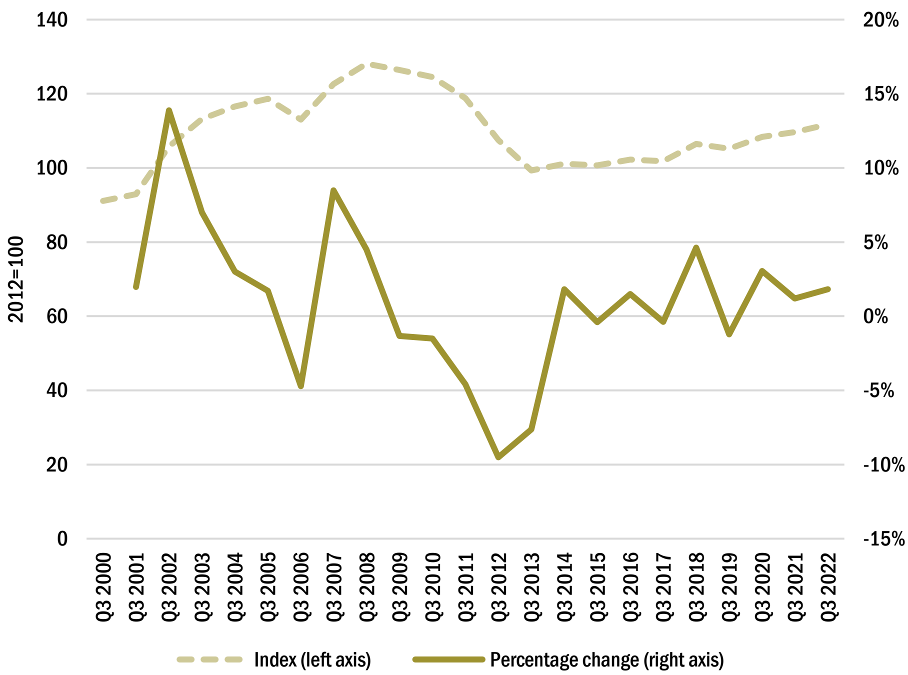
despite the decline in employment in public administration by 15,500 and in transport-storage by 10,000 employees.

As regards the trend of the seasonally adjusted wage cost index in the Greek economy as a whole, it stagnated compared with the previous quarter and was up year on year by 1.8% (to 111.7 from 109.7 points), after three consecutive quarters of negative annual change.

Figure 3.17

Seasonally adjusted wage cost index and its percentage change

Annual increase in the seasonally adjusted wage cost index in the third quarter of 2022 by 1.8% compared to the same quarter of 2021.



Sources: ELSTAT

Table 3.9

Population aged 15 years and over by employment status (in thousands)

Reference period	Total	% of Population	Employed	Percentage (%) of the labour force	Unemployed	Percentage (%) of the labour force
2015	9,246.6	52.0	3,610.7	75.1	1,197.0	24.9
2016	9,212.8	52.1	3,673.6	76.5	1,130.9	23.5
2017	9,176.9	52.1	3,752.7	78.6	1,027.1	21.5
2018	9,140.2	51.9	3,828.0	80.7	915.0	19.3
2019	9,103.5	52.0	3,911.0	82.7	818.9	17.3
Q1 2020	9,083.8	50.6	3,852.6	83.8	745.1	16.2
Q2 2020	9,080.5	50.8	3,844.0	83.3	768.3	16.7
Q3 2020	9,077.3	51.6	3,926.8	83.8	756.4	16.2
Q4 2020	9,074.2	51.0	3,878.5	83.8	750.1	16.2
2020	9,079.0	51.0	3,878.5	83.7	755.0	16.3
Q1 2021	9,070.8	48.2	3,625.1	82.9	745.4	17.1
Q2 2021	9,067.1	51.3	3,915.3	84.2	732.5	15.8
Q3 2021	9,063.5	52.2	4,118.3	87.0	615.4	13.0
Q4 2021	9,060.0	51.6	4,053.3	86.8	617.4	13.2
2021	9,065.4	50.8	3,928.0	85.2	677.7	14.7
Q1 2022	9,055.8	51.8	4,044.0	86.2	647.2	13.8
Q2 2022	9,051.9	52.6	4,167.2	87.6	591.6	12.4
Q3 2022	9,048.2	52.7	4,216.0	88.4	555.6	11.6

Source: ELSTAT, Labour Force Survey

Medium-term outlook

The main event affecting the socio-economic environment in 2022 was undoubtedly the war in Ukraine with the resulting negative effects on energy costs and inflation. With regard to the first, the measures to support households and businesses (e.g. subsidy of electricity bills, fuel purchase subsidy, higher heating allowance) eased energy costs, while in relation to the latter, the adoption of corresponding measures (e.g. checks and allowances to vulnerable social groups) limited to some extent – but not with the same intensity and extent as in the case of energy costs – the negative effects of inflation. It should be noted that since July 2022 the ECB has carried out four interest rate hikes, but the positive effects on inflation are expected to become stronger in the coming period.

In relation to Tourism, which contributes significantly to growth and thus to employment, incoming tourism revenue was up 49.7% (at current prices) in the first nine months of 2022, compared to the same period in 2021 (from EUR 10.4 billion to EUR 15.6 billion), while international arrivals at the country's main airports in the first eleven months of 2022 were 83.6% higher than in the same period of 2021 (and +0.1% compared to the same period of 2019), i.e. 21.1 million from 11.5 million arrivals.

At the same time, exports of goods excluding petroleum and ships (current prices), with data or the first ten months of 2022, increased by 25.6% compared to the same period of 2021 (to EUR 29.6 billion from EUR 23.6 billion), while with fuel and ships the corresponding increase stood at 39.5% (from EUR 31.8 billion to EUR 44.4 billion).

Moreover, according to the latest available data, both household and business consumption and construction activity are on an overall positive trend. In more detail, with data for the first ten months of 2022, seasonally adjusted turnover and volume indicators in retail trade increased by 12.7% and 3.6%, respectively, compared to the same period of 2021. Furthermore, turnover in wholesale trade increased by 24.5% while volume fell by 5.3% in the first nine months of 2022, compared with the first nine months of 2021. As regards the construction sector, the corresponding production index in the first nine months of 2022 increased by 20.8%, compared with the same period in 2021, while a similar trend can be seen in the production indicators of building works (+13.4%) and civil engineering (+26.2%).

Regarding investment, significant infrastructure projects are expected to enter or are already in maturity (e.g., Hellinikon, northern road axis of Crete, Castelli Airport, metro line 4), while in relation to the recovery and resilience fund in 2022, the budget of the investment projects (total 291) submitted to its loan arm amounted to EUR 10.53 billion. Of all projects submitted to the Recovery Fund 68 loan contracts have been signed by 30/12/2020, with their budget totalling EUR 3.22 billion.

Regarding the coronavirus, the milder new variants and the vaccination – mainly of vulnerable groups – with updated vaccines have significantly reduced the number of hospitalised and dead, so there has been no significant deterioration in the health conditions and therefore economic activity has not been negatively affected.

Regarding the path of employment next year, 2023 is the year of parliamentary elections. However, as stated in the previous report, the current electoral law provides for the application of simple proportionality and therefore the chances of holding re-elections are high, with corresponding effects on the functioning of the economy and consequently also on employment. At the same time, the war in Ukraine is expected to continue at least for most of this year, with corresponding negative – but less pronounced – effects on energy costs as the European Union gradually diversifies the sources from which it buys gas and petroleum, while a cap on the price of Russian gas and oil has been agreed.

In addition, employment in 2023 will be significantly influenced by the course of tourism too. On the one hand, the erosion of household disposable income by inflation and the high energy costs that have passed on to air ticket prices are a deterrent to travel abroad and thus also in Greece. On the other hand, despite rising prices, large tourist agencies estimate that the demand for travel to Greece will remain strong and as a result, the decrease in per capita expenditure per trip is projected to be largely offset by the number of additional tourists who will visit the country but for fewer days. Overall, tourism in 2023 is expected to be at the level of or slightly lower than in 2022, affecting employment in the relevant sectors accordingly.

Consumption is expected to move moderately up in 2023, driving employment in the respective sectors. On the one hand, it will be negatively affected by high but lower inflation compared to 2022, which, according to IOBE's latest forecasts, is expected to stand at 4.0% in 2023 (up from 9.6% in 2022). At the same time, household and corporate disposable income will be dampened due to an increase in borrowing service costs (current and new) as a result of the expected further rise in ECB interest rates in the first half of this year. However, these negative effects will be offset by measures to support households and businesses, as well as by a new increase in the minimum wage from 1 April 2023. That said, the new increase in the minimum wage will mainly affect companies in sectors in which a large proportion of workers are paid the minimum wage. This increase, coupled with higher energy costs, is likely to put strong pressure on some of these enterprises with the potential to favour employment regimes other than full-time, e.g., part-time work, while layoffs are also likely.

Exports of goods are expected to rise in 2023 – with similar positive effects on employment – but much less than in 2022, due to a significant slowdown in the pace of recovery in the euro area and the European Union (+0.3% in the European Union and +0.3% in the euro area, according to the latest report by the European Commission, from a recovery forecast of +1.5% and +1.4% respectively in its previous report), but also due to inflationary pressures that will continue in 2023 but with lower intensity than in 2022.

Higher investment in export and construction sectors will have a positive impact on employment, but it is expected to be milder. On the one hand, the resources of the recovery fund (in January the European Commission approved the second tranche of EUR 3.6 billion from the recovery fund) and the maturation of large infrastructure projects (Hellinikon, metro, motorways, digital infrastructure) will have a positive effect, but on the other inflation (lower than in 2022) and an increase in interest rates by the ECB will dampen investment risk taking.

As regards the contribution of the public sector to employment in 2023, data to date indicate that this will come from the planned recruitment of regular (17,900 permanent hiring) and temporary staff (2,700 posts) in the public sector. In relation to public-benefit work, the only ongoing programme is the one for 25.000 jobs in local authorities, where the eight-month contracts of the beneficiaries expire in January-February 2023. However, a decision by the European Commission is pending – at the request of the Ministry of Labour – whether or not to extend this programme for a few months. It is also noted that according to the annual action plan of the Ministry of Labour, 21 new employment support programmes are expected in 2023, through subsidising the recruitment and training of unemployed and workers.

In view of the above effects on the labour market, IOBE's forecast does not change from the previous report. Thus, the unemployment rate in 2022 is expected to fluctuate around 12.3%, while in 2023 it is expected to stand at 11.5%.

According to IOBE's most recent Business and Consumer Surveys, in October-December quarter of 2022, the expectations for the short-term employment prospects significantly improved quarter on quarter in construction and retail trade, remained unchanged in Industry, and weakened sharply in services. Compared to the same period in 2021, there was a marked decline in all sectors, with more pronounced change in services and retail trade. In more detail:

In Industry, the average balance for the fourth quarter of the year remained unchanged from the previous quarter at + 1 point. Compared to last year's performance, the average quarterly index is about 10 points lower. In the quarter under review, the proportion of industrial enterprises forecasting a decline in employment in the coming period increased slightly to 16%, from 12% in the previous quarter, while at the same time, the proportion of those expecting an increase in the number of jobs went up to 17% (from 13%). However, a large majority of firms in the sector (67%) foresee stability in terms of employment.

Figure 3.18

Employment expectations (difference between positive and negative responses)

Source: IOBE

In the fourth quarter of 2022, compared with the previous quarter, there was a significant improvement in short-term employment expectations in construction and retail, with expectations in Industry remaining unchanged and weakening sharply in services.

In Construction, the relevant expectations point to a major improvement in the sector's employment balance, which strengthened significantly from -8 points to +18 points, yet it remained slightly lower than in the same period of 2021 (+23 points). In the quarter under review, 26% (up from 38%) of the firms in the sector were expecting fewer jobs, while the proportion of respondents expecting employment to rise significantly improved to 44% (from 30%). At the level of sub-sectors, there is a significant improvement in the relative indicator in private construction (-3 from -35 points) and in public works (+39 from +24 points).

The employment expectations index in Retail Trade improved significantly in the fourth quarter of last year compared with the immediately preceding quarter, to +20 points (from +1), a performance significantly lower than in 2021 (+37). Only 4% of the firms in the sector were expecting jobs to fall, from 9% in the previous quarter, while 24% (from 11%) were anticipating employment growth, with those expecting stability moving to 72% (from 80%) of the total. In the individual sectors under review, there was a significant improvement in the relative balance in textiles-clothing-footwear, vehicles-parts, and department stores. The increase was marginal in food-beverages, while, by contrast, the index declined mildly in household equipment.

In Services, the employment expectations in the quarter under review point to a sharp weakening quarter on quarter, and an even sharper change year on year. Thus, the relative balance for the fourth quarter of 2022 fell by 18 points to +1 points in the quarter under review, while compared with the corresponding period of 2021 it declined by 26 points. Of the enterprises in the sector, 13% (down from 4% in the previous quarter) were expecting a decline in employment, with those expecting an increase totalling 14% (from 23%). At the sectoral level, the trend is strongly negative in the financial intermediaries and land transport, while it is mildly negative in IT, hotels-restaurants, and other businesses.

3.5 Consumer and Producer Prices

- An increase in the CPI by 9.6% in 2022 against 1.2% inflation one year ago. Price strengthening mainly by the rise of prices of energy goods in the first nine months and non-energy goods in the final quarter.
- Rate of change in HICP with fixed taxes and excluding energy at 6.0% in the first eleven months of 2022, from a decline of 0.1% one year ago.
- Assessing the trends in import prices (IPI), producer prices (PPI) and consumer prices (HICP) in selected categories of goods, during the 2021-2022 energy crisis:
    - Food-drinks-tobacco: positive correlation with a 2-3-month lag between IPI and HICP, with the impact on consumer prices mitigated by a milder increase in domestic production prices.
    - Energy goods: IPI and PPI cumulatively increased significantly more than the HICP, as domestic energy cost support policies partially slowed down consumer price increases.
    - Other consumer goods: IPI and PPI fell short of the increase in the HICP. Energy costs affected production costs, exerting indirect inflationary pressures on consumer prices.
- For 2023, the Consumer Price Index is projected to strengthen at a rate of 4%. Key assumptions:
    - the price of Brent oil will fall by about 17%
    - private consumption demand will grow by 0.8%

Recent developments

In 2022 as a whole, there was a particularly strong price rise compared with a year ago, with the average rate of change in the national Consumer Price Index (CPI) standing at 9.6%, from a milder increase of 1.2% one year ago. A strong increase of 9.3% was recorded in the Harmonised Index of Consumer Prices (HICP) in 2022, from a marginal increase of 0.6% last year. In December 2022, the rate of change in the CPI stood at 7.2%, down from 5.1% in the same month of 2021. The same positive trend is recorded in the HICP, with its rate of change standing at 7.5% in December, from 4.4% in the same month of the previous year.

As regards the effects of the HICP components on its trend, the strong increase in the harmonised index in the period from January to November 2022, by 9.4%, where data are available, is due to the direct impact of energy goods, but also to the positive impact of domestic demand, as the percentage change in the index with fixed taxes and excluding energy goods reached 6.0%. Indirect taxation essentially had no impact on prices in the first eleven months of the previous year (-0.1 percentage points of HICP), from -0.4 percentage points a year ago.

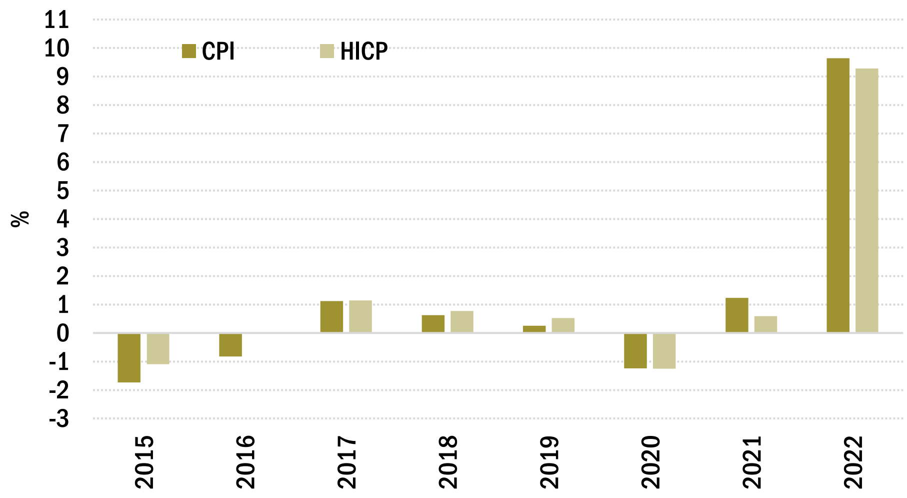
With regard to developments in energy commodity prices and their impact on the HICP, the average international oil price strongly increased year on year in January - November 2022. Specifically, the average price of Brent oil in the first eleven months of the previous year stood at $102.6/barrel, from $70.5/barrel a year ago, recording an increase of 45.6%.[19] The decline in the average exchange rate of the euro against the dollar over the same period, by 11.7%, to 1.05 compared with 1.19 a year earlier, further strengthened the rise in the euro price of oil, with its average price standing at EUR 97.8/barrel, 64.8% higher than in the corresponding period of 2021. The rise in the price of oil, which is a key component of energy costs, reflects the average upward impact of energy goods prices on the rate of

[19] Average period prices based on Europe Brent Spot Price. Source: EIA, US Energy Information Administration https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm

change in the HICP domestically of 3.4 percentage points in January - November 2022, compared with a milder positive effect of 0.8% in the corresponding period of 2021.

Figure 3.19

Annual change in the domestic CPI and the HICP in Greece (%)

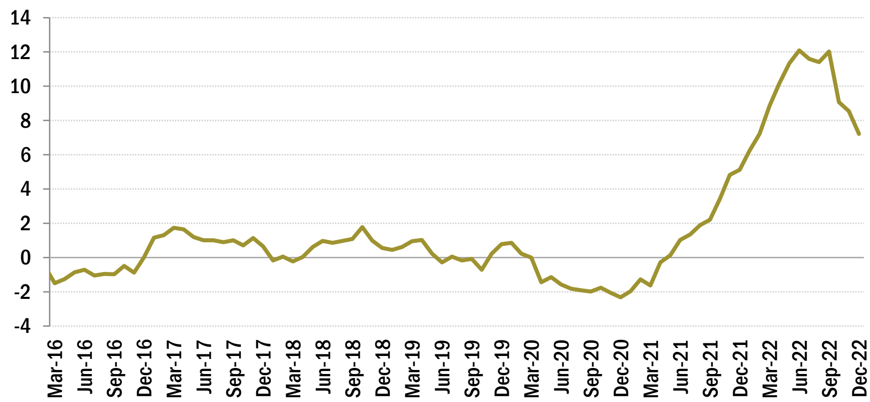


CPI year-on-year boost of 9.6% in 2022, from 1.2% inflation in 2021.

Source: ELSTAT, data processing IOBE

Figure 3.20

CPI in Greece (annual percentage change per month)



A decline in domestic CPI growth in December (7.2%), remaining higher than in the same month of 2021 (5.1%).

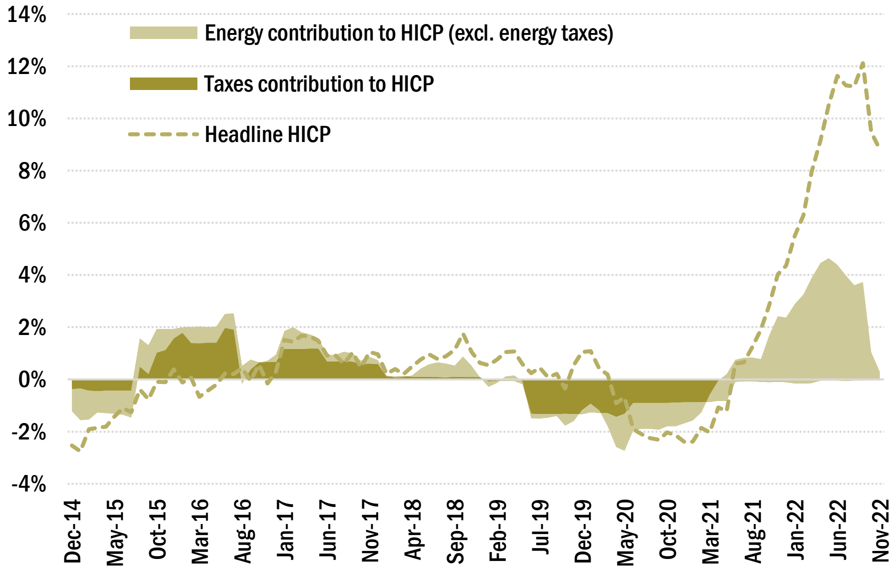
Source: ELSTAT, data processing IOBE

The strong increase in the HICP in Greece in January- November 2022, by 9.4%, brings the country around the middle of the euro area's ranking, but above the weighted average. The average change in the euro area HICP stood at 8.3% over the same period, down from 2.4% a year ago. Resilient domestic demand and the indirect effects of the energy crisis on supply seem to have been the main drivers of price increases in the euro area, as the price index with fixed taxes and excluding energy goods increased by 4.9% in the first eleven months of the previous year, compared with the same period of 2021, when it had increased by 1.2%.

Figure 3.21

Annual rate of HICP change in Greece and impact of energy product prices and tax changes

The increase in the HICP towards the end of 2022 is mainly driven by non-energy goods prices, while the impact of taxes is close to zero.



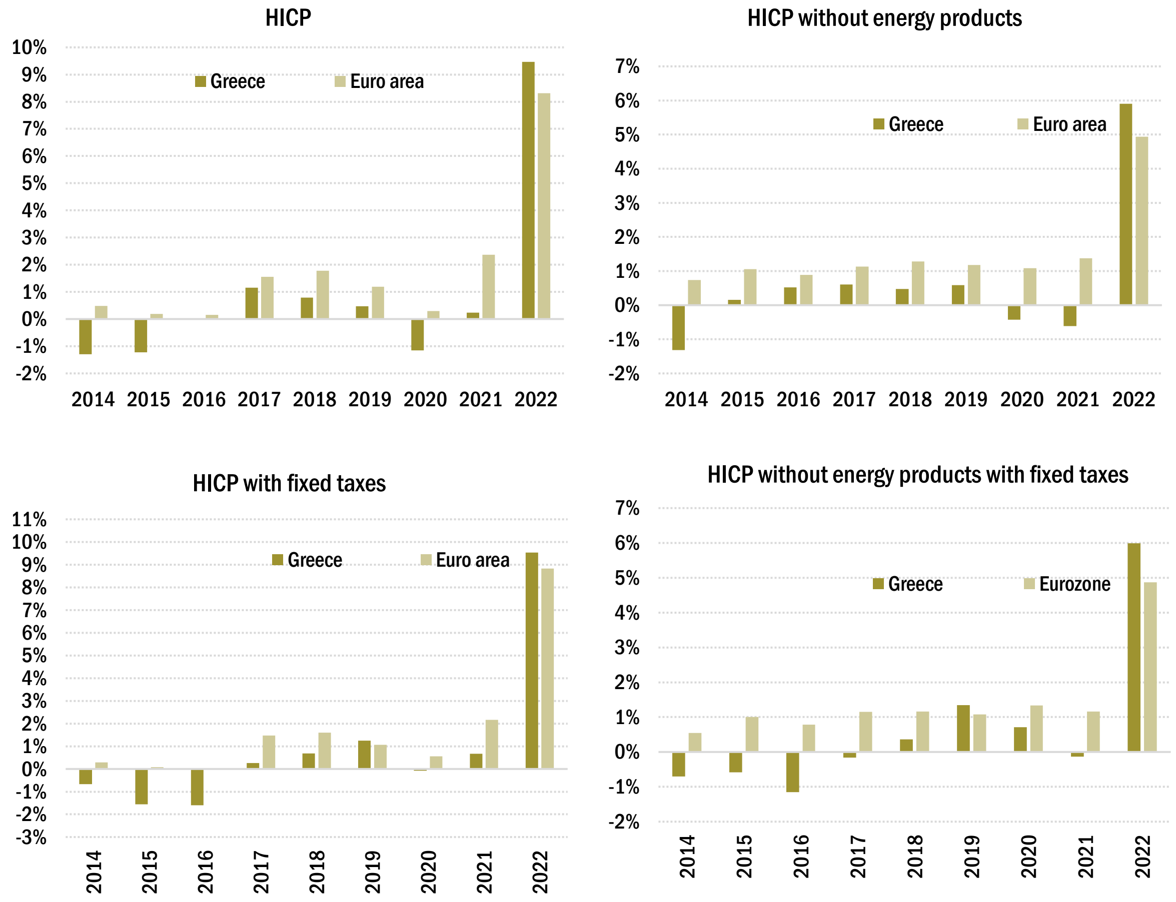
Source: Eurostat, data processing IOBE

As regards the trends in the product and services categories included in the domestic CPI, the largest increase in 2022 was recorded in housing and transport, mainly due to strong increases in the prices of energy goods. Prices in the housing category rose by 24.7%, from a milder increase of 5.3% a year ago, while in transport prices rose by 15.5%, from 4.2% a year ago. The change in food was milder, recording a rise of 11.7% from 1.4% a year ago, followed by durable goods with 7.2%, after a decline of 0.4% a year ago. Prices also increased in hotels and clothing, by 5.7% and 5.2%, respectively, from a decrease of 0.1% and 2.0%, respectively, one year ago. The rise in prices for other goods was milder in the previous year (2.3%), after a decline of 1.5% in 2021, while the increase in prices of recreation was even lower (1.5%) from a decline of 0.6% a year earlier. In health and education, prices were slightly higher in 2022 compared to a year ago (+1.3% in both categories), compared with a decrease of 0.6% and 0.7% respectively in 2021, followed by alcoholic beverages with 1.2% after a decline of 0.2% a year ago. By contrast, prices in communications declined by 2.4%, reflecting to some extent the decrease in the mobile subscriber levy, after a 2.1% drop a year ago.

With regard to price trends on the production side in the first eleven months of 2022, where data are available, the Producer Price Index (PPI) in the domestic and external markets as a whole increased strongly compared to the same period of 2021 (+37%). In detail, the PPI without energy strengthened in January - November of 2022 by 9.1%, compared with a milder rise one year earlier (3.1%). In terms of trends in industrial product prices, the highest rise was recorded in refined petroleum products and electricity-gas, by 82% and 60%, compared with an increase of 48.4% and 9.1% respectively one year earlier. There was also a strong increase in producer prices of crude oil and natural gas, by 23.5%, after a 69% increase in the first eleven months of 2021. Next came base metals with a lower, yet still high rate of positive change, of 21.8%, against a milder increase of 10.9% a year earlier, and wood products, with 16.5%, after a milder rise of 5.1% a year ago. A significant increase in producer prices was recorded in plastic products (14.2%), compared with a rise of 4.5% in the first eleven months of 2021. Producer prices increased in January - November 2022 in paper products too, by 14.0% against 0.6% a year ago. The boost of prices of metal products and ores was at lower levels, by 12.8% and 10.2%, respectively, after a rise of 6.5% and 5.8%, respectively one year earlier. By contrast, the trend in producer prices in coal-lignite production and pharmaceuticals was negative, by 30% and 0.9%, respectively, following an increase of 40.5% and a decline of 1.0% respectively one year earlier.

Figure 3.22

Annual HICP change in Greece and the Euro area (January- November)



Source: Eurostat, data processing IOBE

Particularly strong domestic price increase in the first eleven months of 2022, under the influence of the energy crisis, with the inflationary impact of non-energy goods (6.2 percentage points) higher than the euro area average.

As regards the evolution of the Import Price Index (IPI) in January-November of the previous year, there was an annual increase of 29.3%, compared with an increase of 19.7% one year earlier. The boost of the same index in the euro area stood slightly below that of the domestic index, by +26.4%, compared with an increase of 11.6% in the corresponding period of 2021. The strong rise in import prices domestically ranks Greece second after the Netherlands (29.8%) in terms of their increase among ten euro area countries for which data were available in this period. The increase in import prices for Lithuania (28.8%) and Germany (28.1%) was milder. It should be noted that in all euro area countries for which data are available, there was a strong increase in import prices in the first eleven months of 2022 compared with a year ago, which mostly reflects the positive impact of the strong increase in the prices of energy goods.

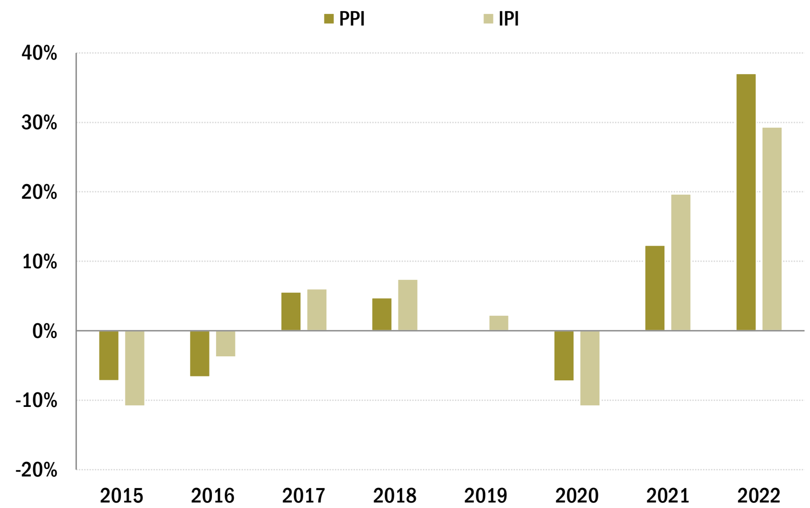
Among the sub-categories of imported products, the largest increase in January-November 2022 was recorded in electricity supply prices, by 176.7%, owing to the positive impact of energy goods prices, after a rise of 10.1% in the corresponding period of 2021. The boost was lower in the prices of refined petroleum products, at 72.4%, and crude oil extraction, at 54.5%, against a milder but still strong increase in the first eleven months of 2021 (56.4% and 63.9% respectively). Prices rose sharply in base metals, by 22.8%, and minerals, by 16.7%, from 18.9% and 8.0% a year earlier. By contrast, prices fell in the first eleven months of 2022 in leather goods, by 1.4%, and in other equipment, by 0.3%, against a weakening of 0.5% and a marginal increase of 0.3% respectively one year earlier.

Box 3.2 presents the correlation between producer and import prices with consumer prices in key categories of goods in 2021-2022.

Figure 3.23

Annual change of PPI and IPI in Greece (January - November)

Higher import prices (29.3%) in the first eleven months of 2022, mainly due to an increase in prices of energy goods. The increase in producer prices in the first eleven months of 2022 was stronger (37%).



Source: ELSTAT, data processing IOBE

Medium-term outlook

An analysis of trends in the main components of the domestic Consumer Price Index over the period January-November last year showed that its particularly strong increase was mainly due to the boost from energy prices. The strong rise in energy prices came as a result of Russia's war in Ukraine, involving countries that play an important role in the production of energy products (oil, gas) and raw materials, and the extensive sanctions gradually imposed by the United States, the European Union, and the United Kingdom on Russia. In addition, EU member states last December approved a new, ninth package of sanctions that includes restrictions on exports of high-tech goods and investment in the mining sector, following the recent escalation of Russia's war operations. Finally, the increased demand after the lifting of the containment measures for the coronavirus pandemic, as well as the decline in output from OPEC countries, maintained the positive trend in energy prices.

In 2022, the international price of Brent oil stood at $100.9 per barrel, up 42.5% from a year ago. The euro/dollar exchange rate averaged 1.05 in 2022, 11.3% lower than in 2021. As a result, the average price of oil in euros reached 96.1 EUR/barrel last year, up 60.6% from a year ago.

Demand effects

Regarding the expected trends in consumer demand and its impact on prices, the new increase in the minimum wage from 1 April 2023, the income support measures of vulnerable social groups (low-pension beneficiaries, people with disabilities, beneficiaries of guaranteed minimum income, etc.), as well as the payment of the "Market pass", are expected to boost disposable income, and subsequently demand.

In addition, the new measures to support households and businesses to mitigate energy costs domestically announced in December last year are expected to boost domestic demand. In particular, the allocation of EUR 840 million in January to support households and businesses is expected to indirectly boost disposable income, while the expansion of this support package in the coming months will prevent a significant fall in prices. Therefore, it is estimated that consumer demand is expected to strengthen moderately in 2023, in the range of 0.8%, maintaining to some extent prices at a high level.

Tax effects

With regard to the expected effects of indirect taxation interventions, for the new year the reduced VAT rates are foreseen to be reintroduced on the Aegean islands without preconditions, i.e., the reduced rates will not apply only to Samos, Chios, Lesvos, Kos, and Leros. In particular, the new VAT rates applicable on all Aegean islands, with few exceptions, will range from 17% to 9%, compared to 24% to 13%, with the lowest rate unchanged at 4%. The reduction in VAT is expected to place a mild restraint on the strong price rise. Finally, the extension of the reduced VAT rates on certain goods and services up to and including June 2023, and the property support measures until December 2024, are not expected to have any effect on prices, as one year has elapsed since the start of their implementation.

Energy effects

Turning to recent developments in energy goods, the international price of Brent oil stood on average in December 2022 at $80.9 per barrel, up 9.1% from a year ago. The euro/dollar exchange rate in the same month of 2022 stood at 1.06, 6.3% lower than in the same month of 2021. As a result, the average oil price in euro stood at EUR 76.4 per barrel, an increase of 16.5% compared to a year earlier.

To mitigate price increases in energy goods domestically, a new package of measures was announced in December, in the wake of previous packages. It should be noted that measures to address high energy costs have a moderating effect on changes in energy prices, as the energy prices taken into account in the CPI include subsidies.

Regarding oil supply, at its last meeting in December 2022, OPEC+, including Russia, decided to keep its daily production fixed. The decision came two days after the G7, together with the EU and Australia, agreed on a $60 per barrel cap on Russian oil transported by sea. Previously in October, OPEC+ had decided to cut daily oil production by up to 2 million barrels in response to lower oil prices and uncertainty about a global recession. By contrast, the United States, Canada, Colombia, and Nigeria are expected to raise their supply in 2023.

Finally, regarding the gas price, the European Commission in December 2022 imposed a cap on gas import prices from all sources in response to the energy crisis. The mechanism provides for a price cap of EUR 180 per MWh in the Dutch TTF since February this year, but it is automatically lifted if demand increases by 10-15%.

World demand

The outlook for a recovery in global demand this year appears to be weakening in line with macroeconomic forecasts by international organisations. In particular, global GDP growth is expected to slow down in 2023, to around 2.2%, lower than projected in September (3.0%).[20] The continued rise in commodity and energy prices has affected almost all economies, while dampening real incomes and spending, further slowing the recovery. Recovery momentum is expected to be stronger in China in 2023, vis-à-vis the euro area and the US as its economy, after the lifting of the Covid restrictions, returns to normal, with demand for oil expected to grow significantly, mainly in the second half of this year.[21]

Against this background of developments, the average oil price in 2023 is expected to stand at $83.1/barrel from $100.9/barrel in 2022 (-17.7%), mainly due to a slowdown in global growth.[22] The euro/dollar rate this year is expected to average 1.03, 2% lower than in 2022.[23] Subsequently, the average euro oil price in 2023 will reach 80.7 EUR/barrel, a decline of 16% compared to this year.

Taking into account the above trends and developments in the main factors affecting consumer prices, it is projected that the General Index of Consumer Prices will strengthen slightly this year, at a pace in the region of 4 %, mainly due to consumer demand.

[20] OECD Economic Outlook, November 2022: Confronting the Crisis
[21] International Energy Agency, World Energy Outlook 2022
[22] Energy International Agency, Short-Term Energy Outlook, January 2023
[23] Macroeconomic projections, ECB, December 2022

The monthly business and consumer surveys of IOBE provide results that serve as leading indicators for the price developments on the supply side for the coming period.

The trends in price expectations are mixed in the fourth quarter of 2022 compared with the third quarter of that year. With the exception of the services where they eased mildly, in retail trade and industry the price expectations remained unchanged, while in private construction they moved up strongly. Year on year, the price expectations recorded a strong positive change in private construction, remained unchanged in retail trade and services, and declined markedly in industry. In more detail:

In Industry, the expectations of price developments in the fourth quarter of the year remained the same as in the previous quarter. In particular, the index stood again at +27 points, while it declined by 12 points compared with the same quarter of 2021. Of the firms in the sector, 10% were expecting prices to fall in the short term, while the percentage of those expecting their growth increased to 37% (from 34%), with the remaining 53% expecting price stability.

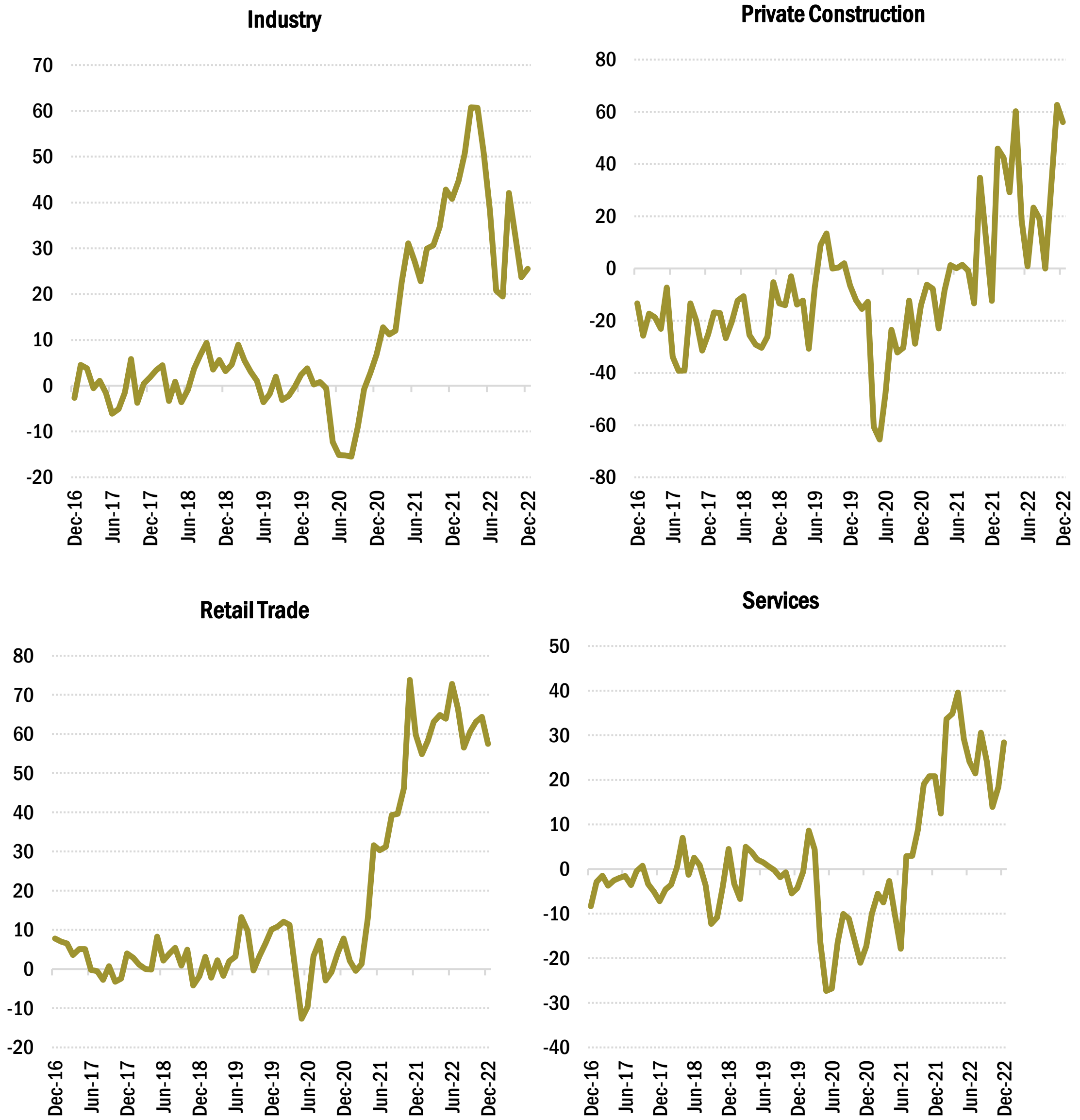
In retail trade, the balance of +62 points in price expectations in the sector remained unchanged in the previous quarter, while at the same time, it was 2 points higher than in the corresponding period of 2021. Of the companies in the sector, none were expecting prices to fall in the short term, while the percentage of those anticipating prices to rise fell to 62 %, with the remaining 37% (from 34%) expecting price stability. In the sub-sectors of retail trade, the quarter-on-quarter changes in price expectations in the fourth quarter of 2022 were positive across all sectors under review, except for food-beverages and household equipment, which slightly declined.

The average indicator of price change expectations in services in the quarter under review declined slightly from the previous quarter to +20 (from +25) points, returning to exactly the same level as the corresponding average level of Q4 2021 (+20 points). In the current quarter, 9% (from 4%) of the companies in the sector were expecting prices to decline and 29% to increase. The index significantly strengthened in most subsectors, with the exception of financial intermediaries and various business activities, where it declined mildly.

Finally, in the private construction sector, the mild positive balance of +14 points in the previous quarter increased significantly, to +50 points, having changed sharply compared to the corresponding level in 2021 (+39 points). Moreover, none of the firms in the sector were anticipating prices to decline, while the share of those expecting an increase reached 50% (from 18%), with the remaining 50% (from 78%) expecting price stability.

Figure 3.24

Price expectations over the coming quarter (difference between positive and negative answers)



Source: IOBE

The trends in price change expectations are mixed in the fourth quarter of 2022 compared with the third quarter of this year, with the expectations significantly strengthening in private constructions, declining mildly in services, and remaining unchanged in industry and retail trade.

Box 3.2

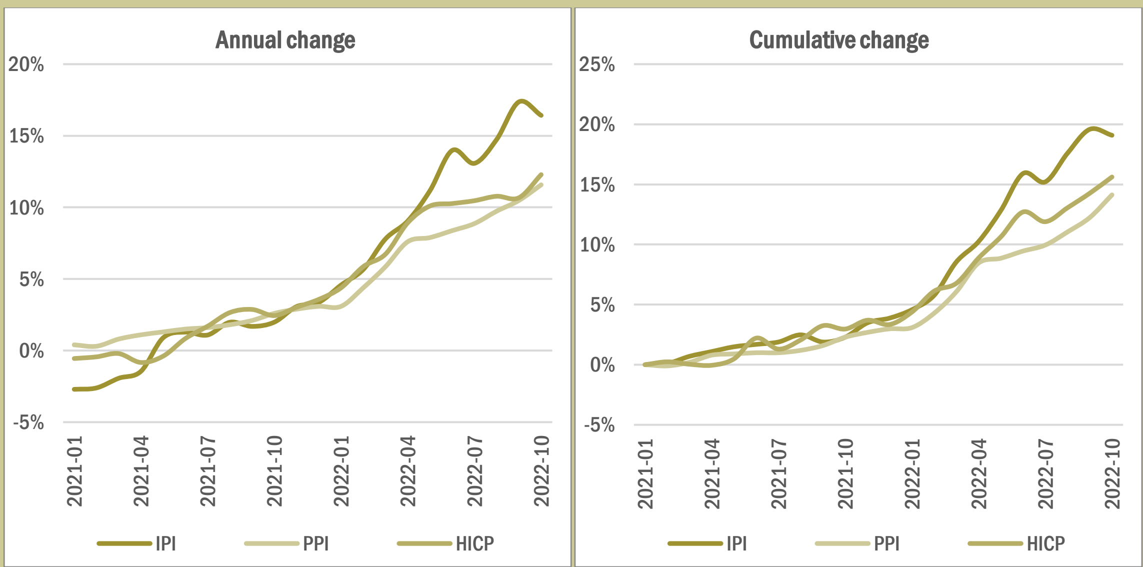
Correlation of producer and import prices with consumer prices 2021-2022

In the January-October 2022 period, the Harmonised Index of Consumer Prices (HICP) recorded an annual increase of 9.4%, while the Import Price Index (IPI) and the Producer Price Index (PPI) in Industry increased stronger year-on-year, by 30.8% and 38.6% respectively. Cumulatively in the period Jan.2021-Oct.2022, the HICP recorded a strong increase (14.8%), yet it was significantly lower than that of the IPI (47.7%) and the PPI (by 61%). As shown in the analysis that follows, this difference cumulatively over 2021-2022 comes mainly from three factors: (a) stronger inflationary pressure on import prices vis-à-vis consumer prices in the food category, which follow partially and with a lag; (b) stronger inflationary pressure on producer and import prices compared to consumer prices in the energy goods categories; and (c) partial offset by higher inflationary pressure in consumer prices than producer and import prices in other consumer goods.

Specifically for the **food-beverage-tobacco** category, in the January-October 2022 period for which data are available, the rate of change in the IPI stood at 11.4% from price stability one year earlier (Figure 3.25). The changes were milder in the PPI in the same product category (+7.8% from 1.3% one year earlier) and the HICP (+ 9.1% from 0.8% in the first quarter of 2021). Looking at trends cumulatively since January 2021, there is a positive correlation between trends for both import and consumer prices and producer and consumer prices. In particular, the IPI and PPI in food-beverage-tobacco increased by 19.1% and 14.1%, respectively, cumulatively over the period under review, with the HICP increasing by 15.6%. Therefore, the path of strong positive change of the IPI was followed with a slight lag of 2-3 months by the HICP and then the PPI.

Figure 3.25

Annual and cumulative price change in food, beverage, and tobacco category, 2021-2022



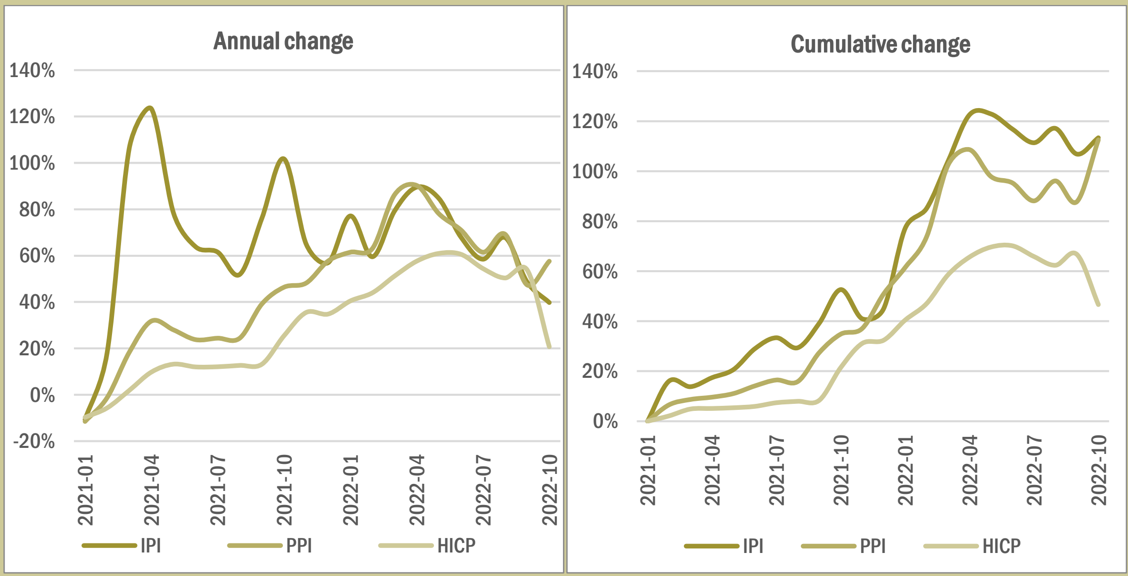
Source: Eurostat

Note: Producer prices in the market as a whole. The cumulative change relates to the rate of change in the index each month compared to January 2021.

In terms of trends in **energy goods** in the first ten months of the previous year, the IPI increased by 66%, compared with 59% a year ago, while the PPI increased by 68.1% from 21.1% in the corresponding period one year earlier (Figure 3.26). The increase in the HICP in the energy category was also significant, albeit at a lower rate of 49% between January and October 2022, from 8% a year earlier. Cumulatively, since January 2021, there has been a strong increase in IPI and PPI, of 113.4% and 112.5%, respectively, reflecting a positive correlation between import and producer prices. The increase for the HICP in the energy category was at a lower rate in the period under review compared with a year ago (46.6%). It should be noted that HICP energy prices also include subsidies, which have slowed down the positive trend in the HICP since July 2022.

Figure 3.26

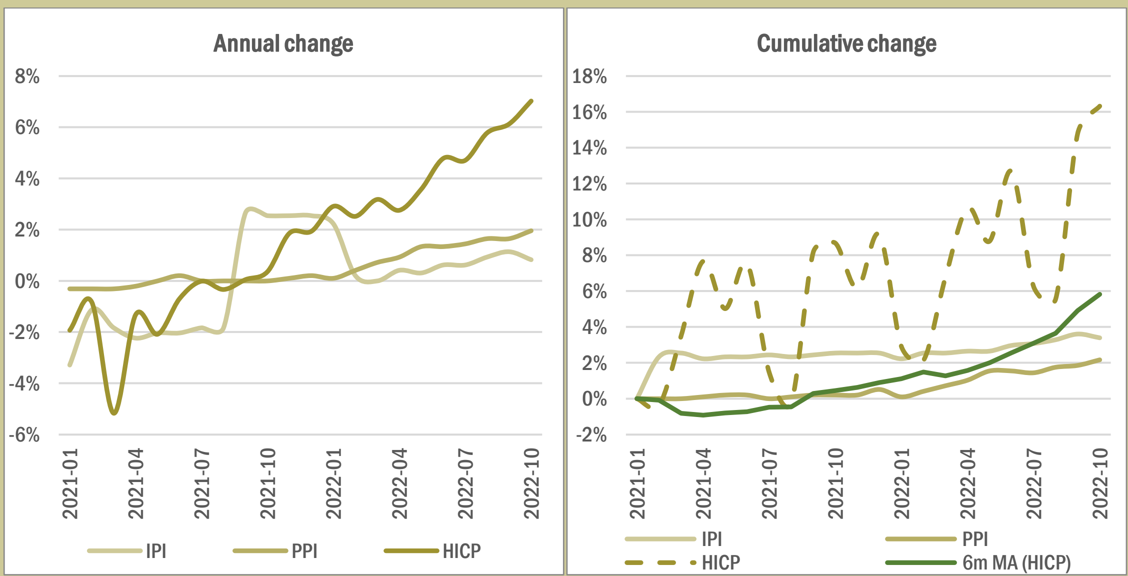
Annual and cumulative price change in energy goods, 2021-2022



Source: Eurostat

Figure 3.27

Annual and cumulative price change in consumer goods*, 2021-2022



Source: Eurostat

* Consumer goods exclude energy, food, beverages, and tobacco.

With regard to price developments in **consumer goods** in January – October 2022, the IPI rose 0.7% against a decline of 1.1% a year ago (Figure 3.27). The increase for the PPI and the HICP was stronger, with 1.2% and 4.4% following a decline of 0.1% and 1.2 % respectively in the first quarter of 2021. Cumulatively since January 2021, the IPI and the PPI have increased by 3.4% and 2.2%, respectively, with the HICP experiencing strong fluctuations with a 6-month frequency. Calculating the 6-month moving average of the HICP shows a positive trend, with a cumulative change of 5.8%. Therefore, the positive trend of the HICP in the consumer goods category is more pronounced than the increase in the IPI and the PPI.

To sum up, the food-beverage-tobacco category has a positive correlation with a 2-3-month lag between import prices and the HICP, with the effect on consumer prices mitigated by a milder increase in domestic production prices. As regards energy prices, while all three price indices are on a strong upward path, the IPI is ahead, the PPI follows at a short distance, and the HICP follows with a smaller range of changes, as domestic policies to tackle energy costs slow down the strong consumer price rises. The relationship is further diversified in other consumer goods, with import and producer price indices falling below the upward path of the HICP. Energy costs indirectly influence production costs, exerting inflationary pressure on consumer prices.

4 CIRCULAR ECONOMY: OPPORTUNITIES, CHALLENGES, AND ECONOMIC EFFECTS

- This chapter highlights the importance of adopting the circular economy model for both the natural environment and the Greek economy.
- It records trends related to material efficiency (mining, consumption, waste, and management) in Greece.
- It presents the European and national institutional framework governing the circular economy while documenting the objectives and timetable for achieving them.
- Using an input/output model adapted by IOBE to the Greek economy, it assesses the economic impact of the transition to circularity.
- It makes policy recommendations aimed at accelerating the transition and the use of its potential for the Greek economy.

Introduction – the need for circularity

The current production model is based on the growing use of natural resources and linearity, i.e., the use of raw materials and the disposal of end-of-life products. This creates significant pressure on the natural ecosystem and has significant negative economic effects as high-value resources are discarded outside the production chain as waste.

It is now clear that the above model cannot support the new conditions shaped by the continuous growth of the world population and the continuous improvement in living standards, usually accompanied by an increase in consumption.

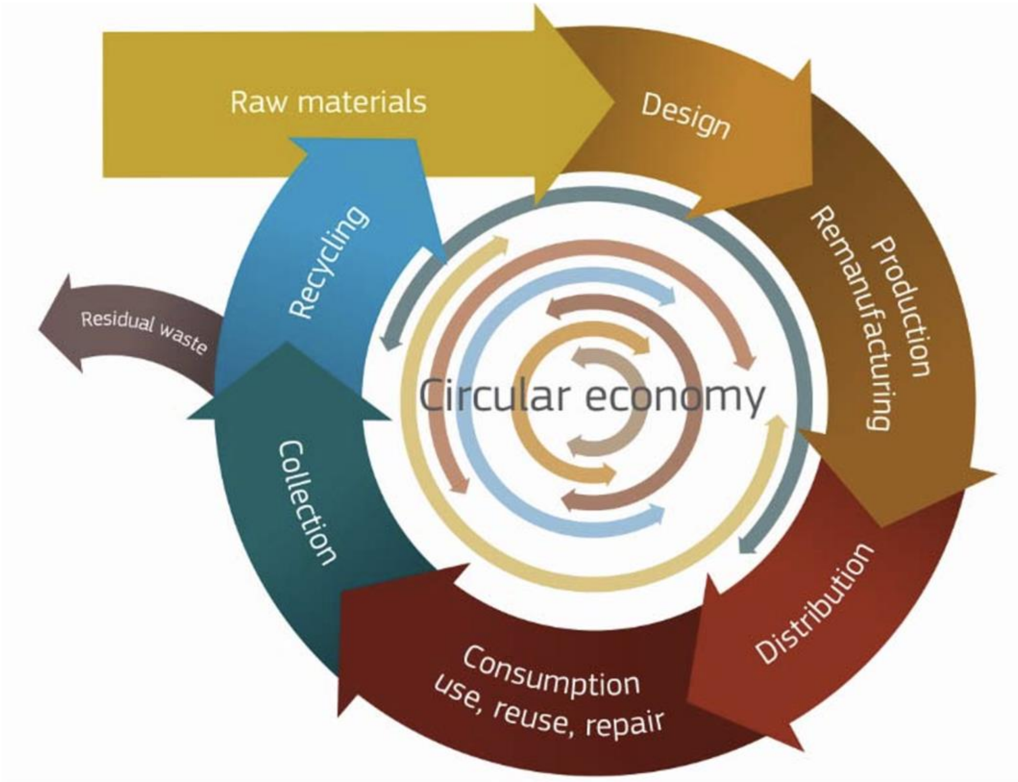
Adopting the circular economy model increases the preservation of resources within the product life cycle, with the highest possible value and for as long as possible. The transition to the circular economy requires the development of innovative and efficient modes of production and consumption, bringing benefits to businesses and consumers, and more broadly boosting the development of the economy at the national and regional levels. In addition, this new model can enhance the protection of businesses and the economy against scarcity of resources and raw materials, as well as from price volatility of energy and other commodities used as inputs in production.

The study carried out by IOBE[24] for the research organisation diaNEOsis highlights the key characteristics of the Greek economy regarding the use and management of raw materials, while assessing the impact of the progress of achieving national policy objectives on the circular economy.

[24] The study is available in Greek at http://iobe.gr/research_dtl.asp?RID=270

Figure 4.1

The circular economy model



Source: European Commission (2014), Towards a circular economy: A zero waste programme for Europe, COM/2014/0398 final.

Material resource consumption and waste management in Greece

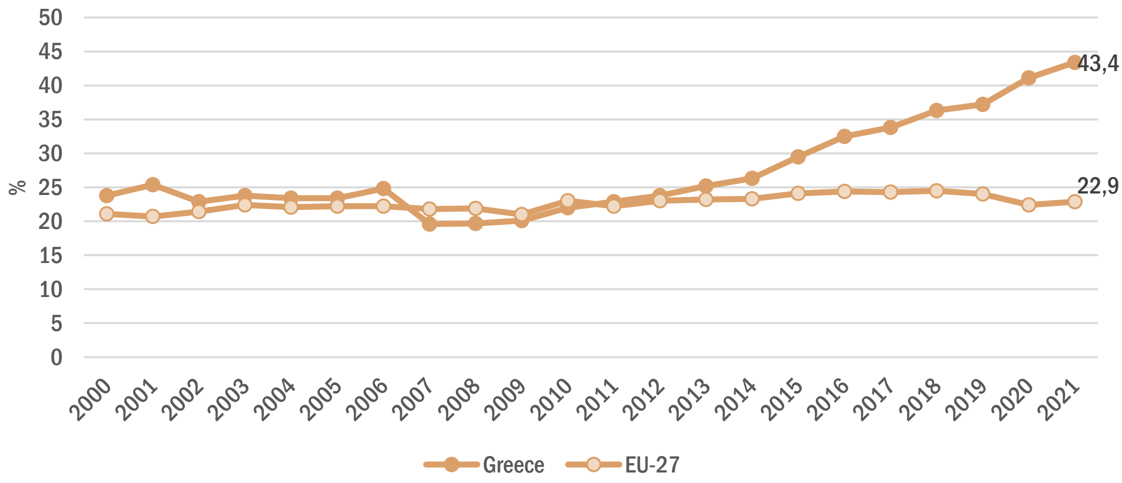
In Greece, the use of material resources declined significantly between 2010 and 2021, while a large part of the needs of the Greek economy were met by imports of raw materials and commodities. The physical trade balance of material resources remained positive (material imports exceeding material exports), albeit following a downward trend. Nevertheless, the dependence on imports of material resources has risen since 2007. The Greek economy has a higher dependency than the European average (EU27) in all material categories.

Having said that, the consumption of material resources declined in 2010-2021. It is dominated by non-metallic minerals, fossil energy raw materials, biomass, and metals.

In the next stages, the per capita municipal waste generation in Greece remains higher than the European average over time, while there is a further trend of divergence from 2018 onwards due to the strong efforts at the European level to decouple economic growth from waste generation.

Figure 4.1

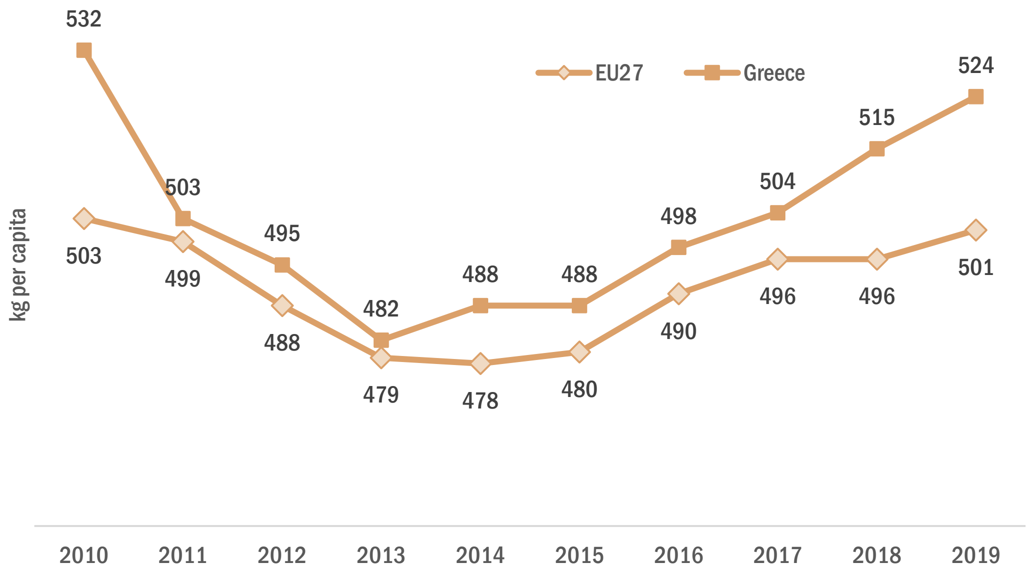
Dependence on imports of materials in Greece and the EU-27 (percentage)



Source: Eurostat

Figure 4.2

Per capita quantity of municipal solid waste, Greece and EU-27

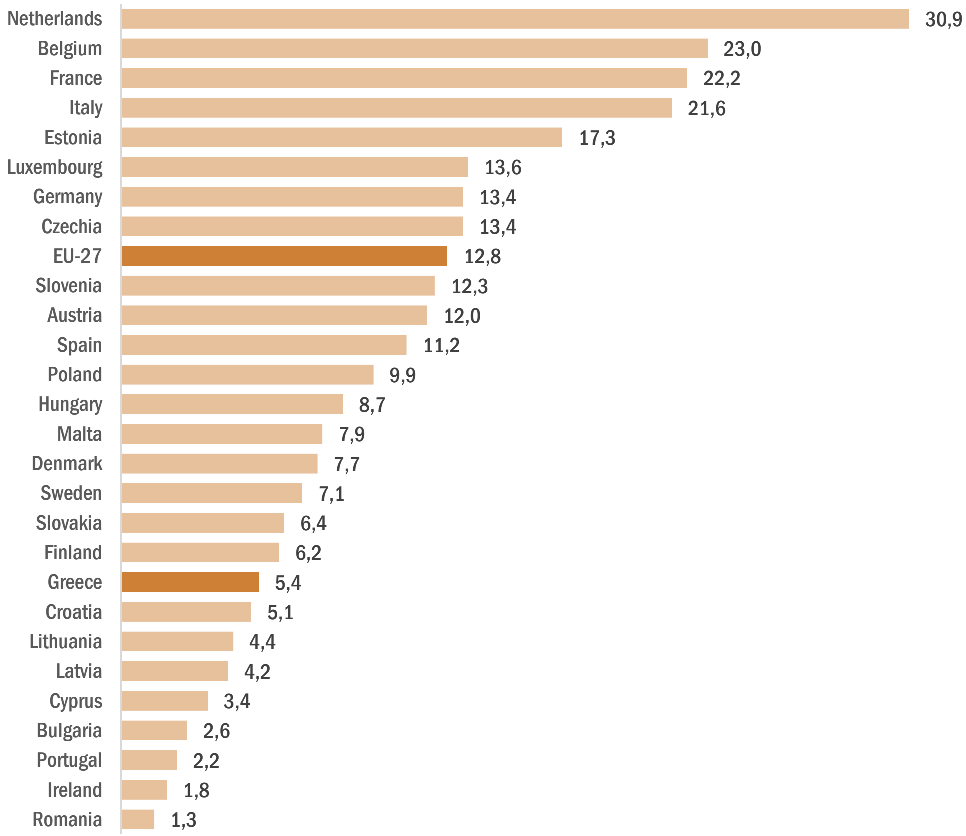


Source: Eurostat

In terms of management, Greece faces structural problems regarding the management of generated waste and, more generally, the creation of secondary raw materials to achieve circularity. The existing municipal waste management system is still based on landfilling (77.6%) and much less on recycling and composting (19.9%), while only 1.3% of managed quantities are directed to energy recovery. As a result, only 5.4% of material resources come from recycling – Greece ranks 18th in circularity in the EU27.

Figure 4.3

Materials circularity rate, 2020, EU-27



Source: Eurostat.

The economic impact of the transition to the circular economy

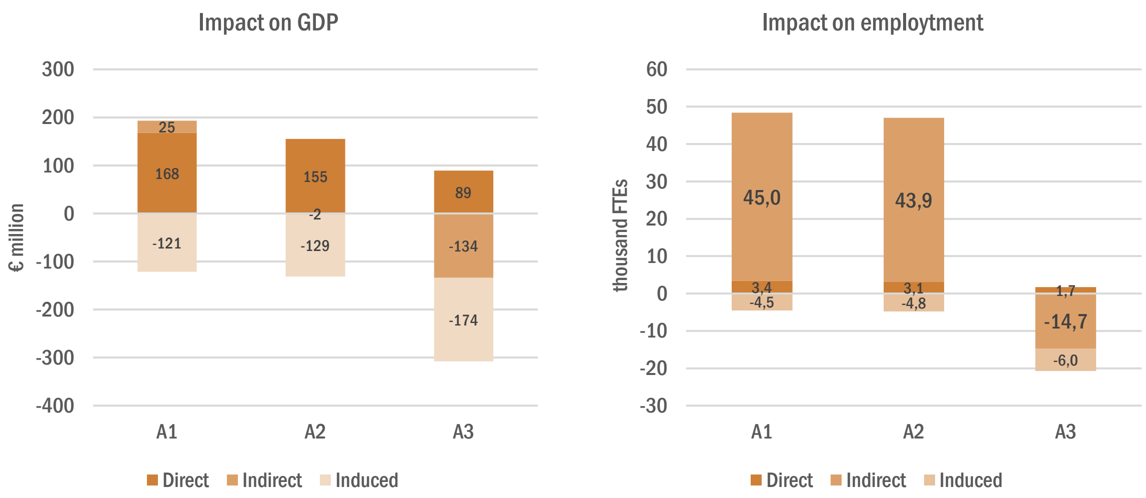
The economic impact of the adoption of the circularity model on the Greek economy takes into account the multiplier effects between sectors of the Greek economy and is estimated in two dimensions. The first takes into account the investments foreseen by the existing national waste management plan, while the second assesses the impact on the economy of the way the Greek industry's demand for secondary materials is met (from imports or the domestic market).

The implementation of investment in the creation of waste management infrastructure in Greece to move towards the circular economy model is expected to boost the country's GDP overall with more than EUR 1.1 billion cumulatively over an eight-year horizon. In terms of employment, the expected impact is estimated at a total of at least 37.000 person-years of employment. The revenues to the state from taxes and levies due to the activity generated by these investments are estimated at around EUR 390 million over the whole period.

In addition, to the extent that domestic demand for materials from recycling or recovery is met by domestic suppliers (Scenario A1), the national economy is expected to benefit further significantly. In particular, the net impact in this scenario in terms of GDP is estimated at EUR 70 million in 2030, while in terms of employment, it amounts to about 44,000 jobs, as job creation in domestic material recovery and repair services outweighs the expected losses in other sectors (such as construction and accommodation). By contrast, if domestic recycling and recovery activities are not sufficiently developed and the domestic demand for secondary raw materials is covered exclusively by imports (Scenario A3), the impact on the Greek economy is expected to be negative. In particular, the losses in this scenario in terms of GDP are estimated at EUR 220 million, while in terms of employment, the Greek economy is expected to suffer a reduction of about 19,000 jobs. In intermediate scenarios (e.g., A2), the footprint may be marginally positive but this depends significantly on the volume of imports of secondary materials. Therefore, the strong growth of domestic recycling, material recovery, and product repair is a prerequisite for the transition to the circular economy to have a positive impact in terms of income and employment for Greece, in addition to significant environmental benefits.

Figure 4.4

Impact on GDP and employment by scenario



Source: IOBE estimates

Economic tools to strengthen the implementation of the circular economy

The design and implementation of financial tools are helpful in achieving the European and national objectives set by the institutional framework. The use of economic tools (e.g., in the form of environmental taxes) is usually aimed at limiting consumption but also at developing and implementing new production models based on innovative technologies that are more environmentally friendly. Payment and refund systems, the ‘pay as I through’ system, landfill taxation, EU eco-labelling, and green public procurement are appropriate economic tools to address the externalities created by the production and management of solid waste.

Financing tools

The transition to a circular economy requires a radical overhaul of the processes that support the products and services we consume throughout their life cycle, from their design to their utilisation after the end of their useful life. This overhaul requires significant investment resources to develop the relevant infrastructure, management processes, applications, and solutions. It is therefore necessary to mobilise and exploit the available financial resources from national sources and EU programmes as much as possible and to leverage them with private funds where possible.

Projects in the field of circular economy could draw funding from the axis on environment, energy, and climate change of the NSRF 2021-2027, with a total budget of EUR 3.61 billion. Resources for public investment in the circular economy could also be drawn from the 2021 – 2025 national development plan (NDP), through the sectoral programme for green growth of the Ministry for the Environment and Energy and through the regional programmes of the plan. In addition, circularity and waste management actions can also receive funding from the Green Fund through programmes drawn up by the Ministry for the Environment and Energy.

Actions related to the green transition may also receive funding through the Recovery and Resilience Facility (RRF), by including them in the relevant plan, as well as in the national plans for just transition of lignite regions, reforestation, circular economy, and biodiversity. The relevant budget from the RRF amounts to EUR 1,762 million, while the national mobilised resources total EUR 2,345 million.

Important tools for the allocation of investment funds are also managed by the European Investment Bank (EIB), which directly finances key infrastructure investment projects and supports investments in small and medium-sized enterprises, through programmes implemented in conjunction with partnering financial institutions. Finally, for the development of innovative technological solutions, significant support can also be received from domestic projects through EU direct funding programmes such as Horizon Europe, LIFE, Interreg, and others.

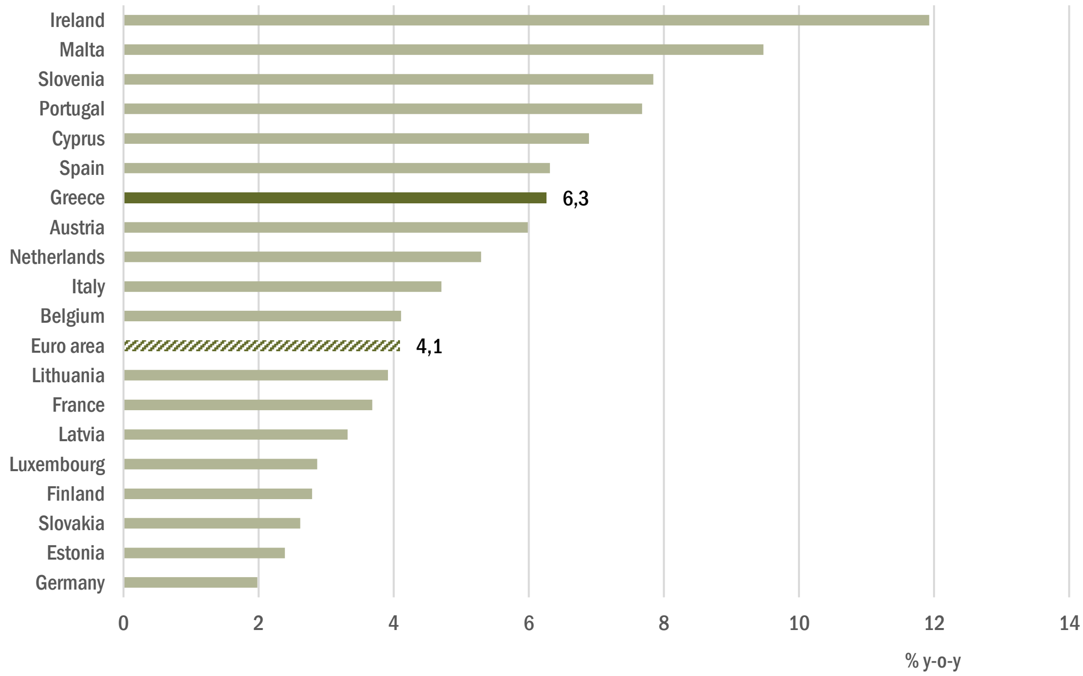
The transition to the circular economy is currently at the heart of the policy on sustainable economic growth, environmental protection, and tackling the effects of the climate crisis. It is a multidimensional project, which requires coordination, multifaceted initiatives, and innovations at both the organisational and technological levels. The following policy proposals take into account the existing obstacles to the transition to the circular economy model and the opportunities for boosting both the natural environment and the Greek economy.

Summary of policy recommendations
Monitoring the implementation of the circular economy strategy
- **More intensive operation of the existing interministerial committee on the circular economy** - Monitoring at regular intervals progress against 2025 and 2030 milestones at the regional and national levels.
Framework and circular economy monitoring indicators
- **Establishment of a dedicated monitoring mechanism with quantitative and qualitative indicators** - **More frequent monitoring for indicators with low performance** - **Participation of the manufacturing industry in the selection of relevant production process circularity indicators** - Study of good practices from the design and operation of observatories operating in the EU-27 – application to the operation of the circular economy observatory in Greece.
Sustainable consumption
- **Consumer education in the identification of products contributing to the circularity of the economy** - **Use of eco-labels that take into account the environmental footprint in life-cycle terms** - **Educational actions in schools and consumer groups in cooperation with the relevant bodies** - Communication and information measures to businesses – recognition of the potential benefit of ESG performance facilitating access to finance.
Recording of waste quantities
- **Application of a specific methodology for the recording of waste and further use of the information provided by the electronic waste register** - Use of the data for the effective implementation of the strategy, the identification and reduction of illegally traded waste, and the efficient design of necessary infrastructure.
Strengthening the operation of alternative management systems and accelerating the creation of new ones for collecting and managing more waste streams
- **Increasing the number of systems and extending to other streams** - **Study of the economic and technical characteristics underlying the collection and management of the relevant streams (e.g.**, **production seasonality issues)** - Examination of the imposition of financial penalties for systems that do not meet their targets to other streams with high potential contribution to the circular economy, besides packaging waste.
Economic tools to improve circularity
- **Implementation and extension of the 'Pay as you throw' systems combined with separate sorting at source.** - **Transfer of experience from the implementation of these systems in other countries and from pilot application to Greek municipalities.** - **Application of a fixed landfill charge (which is not reduced by increasing the volume of waste) in such a way as to create disincentives for the landfill of waste.** - **Imposition of economic disincentives to the use of primary materials, incorporating environmental costs in life-cycle terms, as long as the demand for secondary materials can be met by the domestic recycling industry.** - Speeding up the implementation of the national green public procurement action plan
Waste management infrastructure and production of secondary materials
- **The construction of the 38 processing plants may be affected by land use issues and delays in calls for financial instruments.** - It is necessary to examine the procedures that can accelerate both the availability of financial resources (e.g.**,** NSRF, PPP) and licensing procedures, without altering the quality of the relevant controls.
Use of secondary materials by industry
- **Estimate the quantities of secondary raw materials that the Greek manufacturing industry will need in the coming years** - **Improve the capacity of recyclers in terms of quantity and quality of secondary raw materials produced** - **Actions to foster trust between industry and recyclers** - Implementation of industrial symbiosis systems, following international experience (e**.g.,** Denmark)
Financing the transition
- **The transition should not only be based on national and European public funds but also on private capital (e.g.**, **PPPs)** - Part of the resources available should be directed towards research and innovation aiming at the development of resource efficiency-enhancing solutions and applications, which will be of a commercial nature

APPENDIX

Figure 1

Real GDP growth rate, Q3 2022 (*)

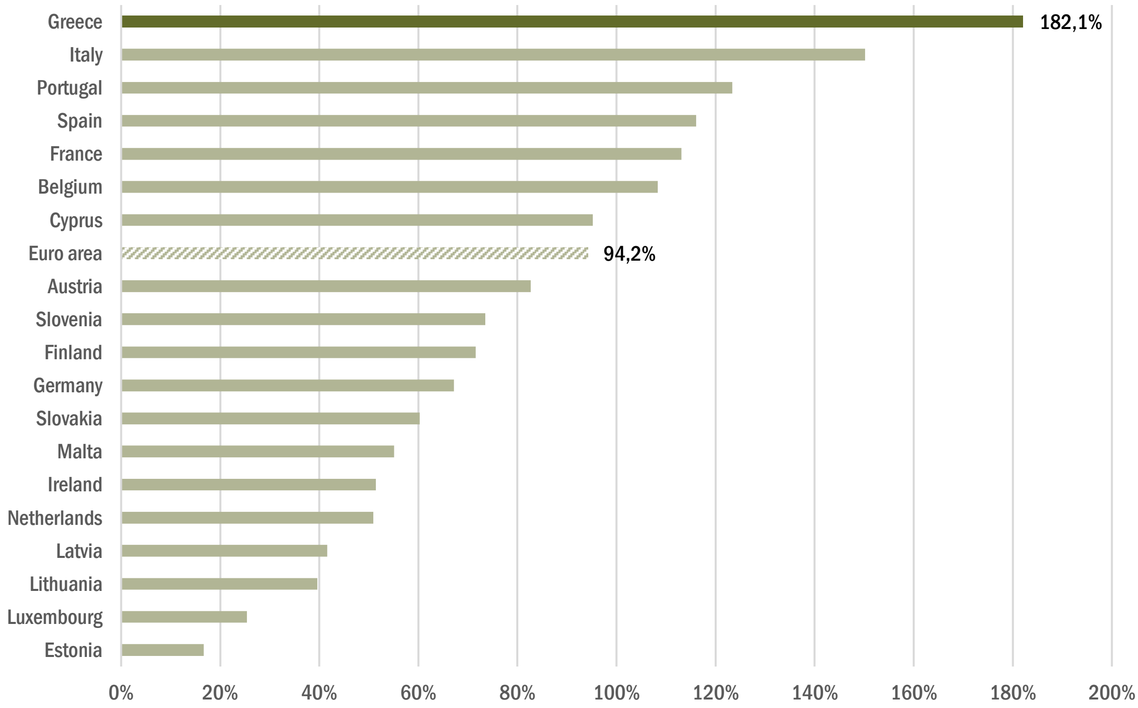


(*) Annualised GDP data (moving average of 4 quarters, up to and including the Q3 2022)

Source: Eurostat

Figure 2

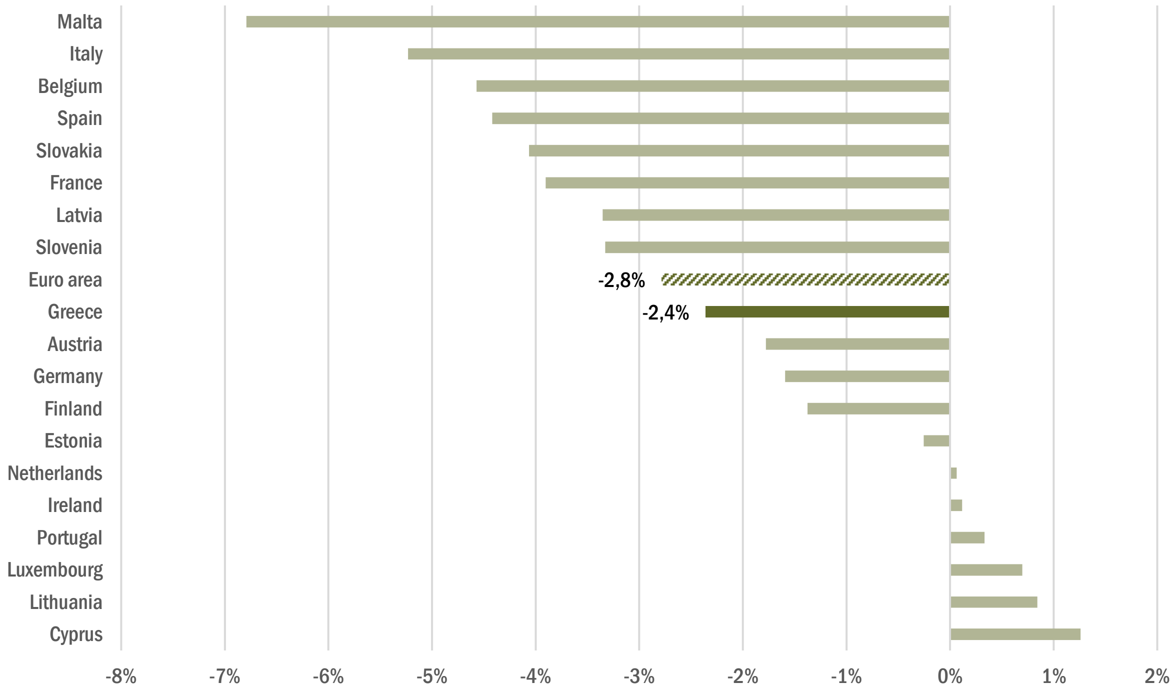
General Government Debt as % of GDP, Q2 2022



Source: Eurostat

Figure 3

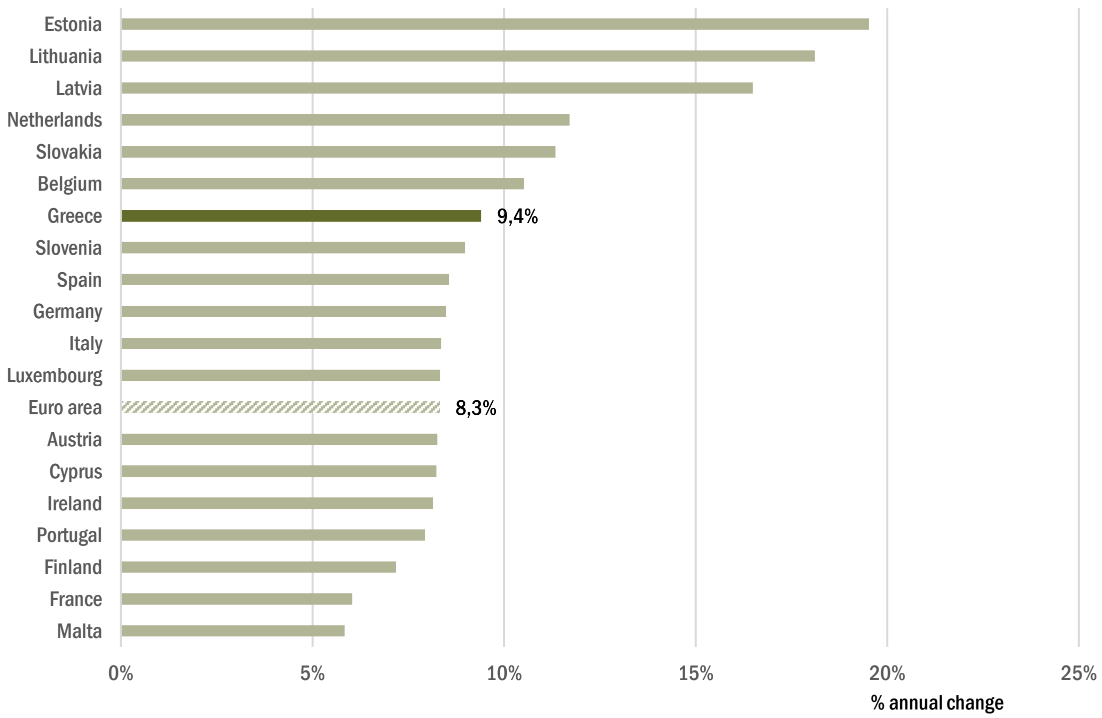
General government balance as % of GDP, Q2 2022 (*)



(*) Annualised data (moving average of 4 quarters, up to and including the Q3 2022)
Source: Eurostat

Figure 4

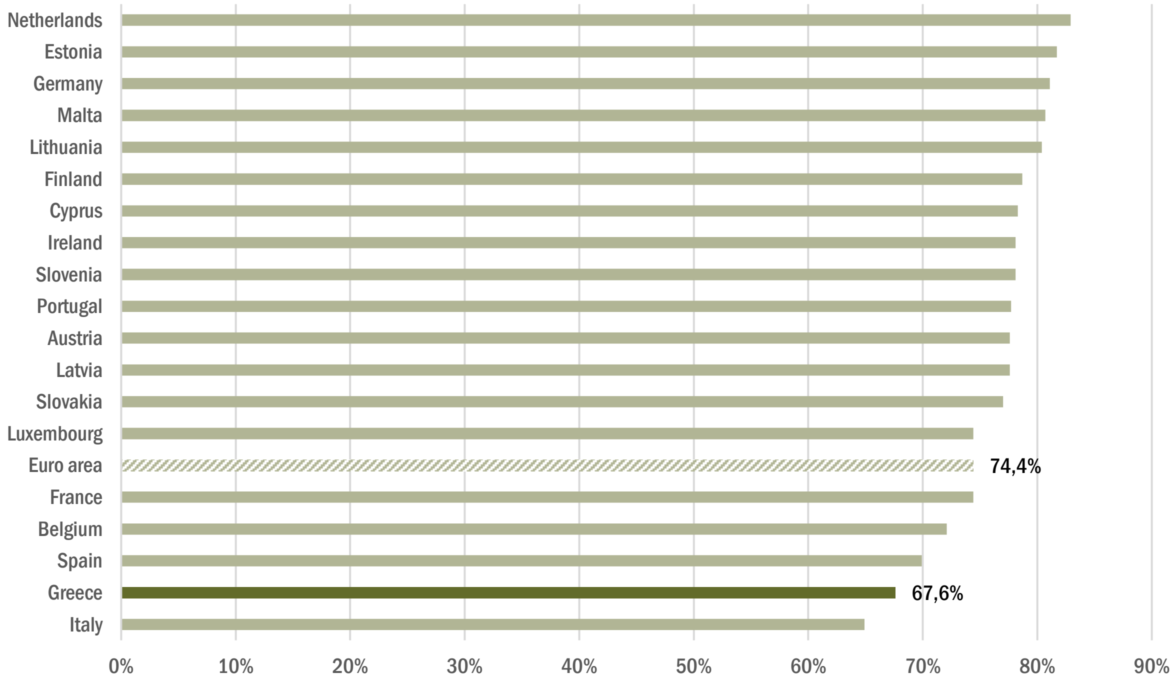
Harmonised Index of Consumer Prices, January – November 2022



Source: Eurostat

Figure 5

Employment, Q3 2022 (*)

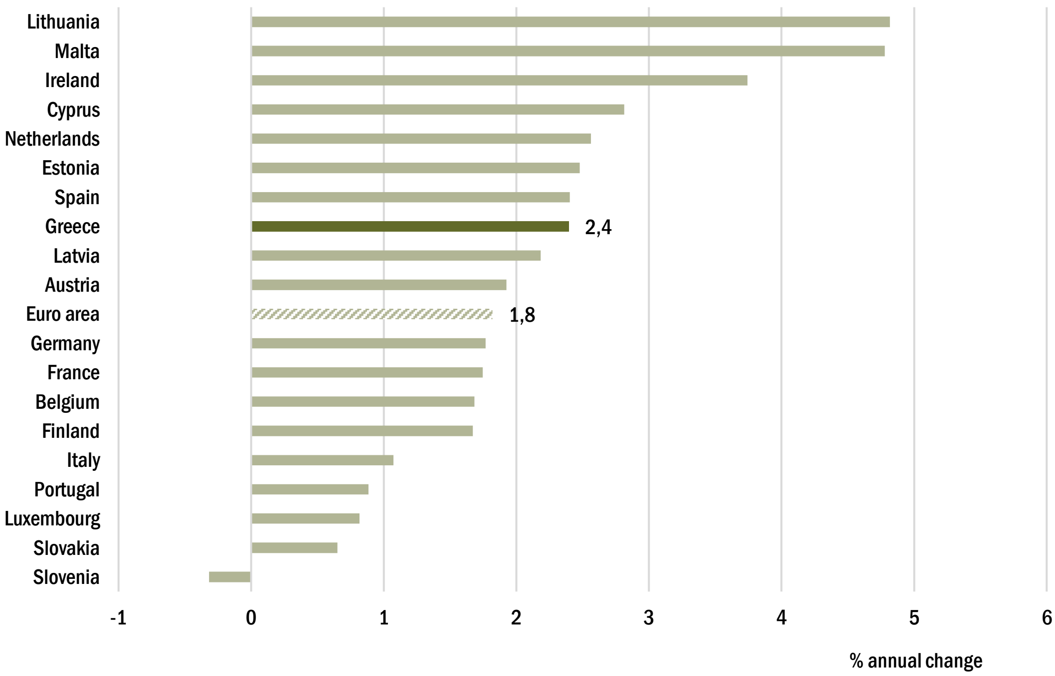


(*) % of employed people aged between 20 and 64 in relation to their total population

Source: Eurostat

Figure 6

Change in Employment, Q3 2022 (*)

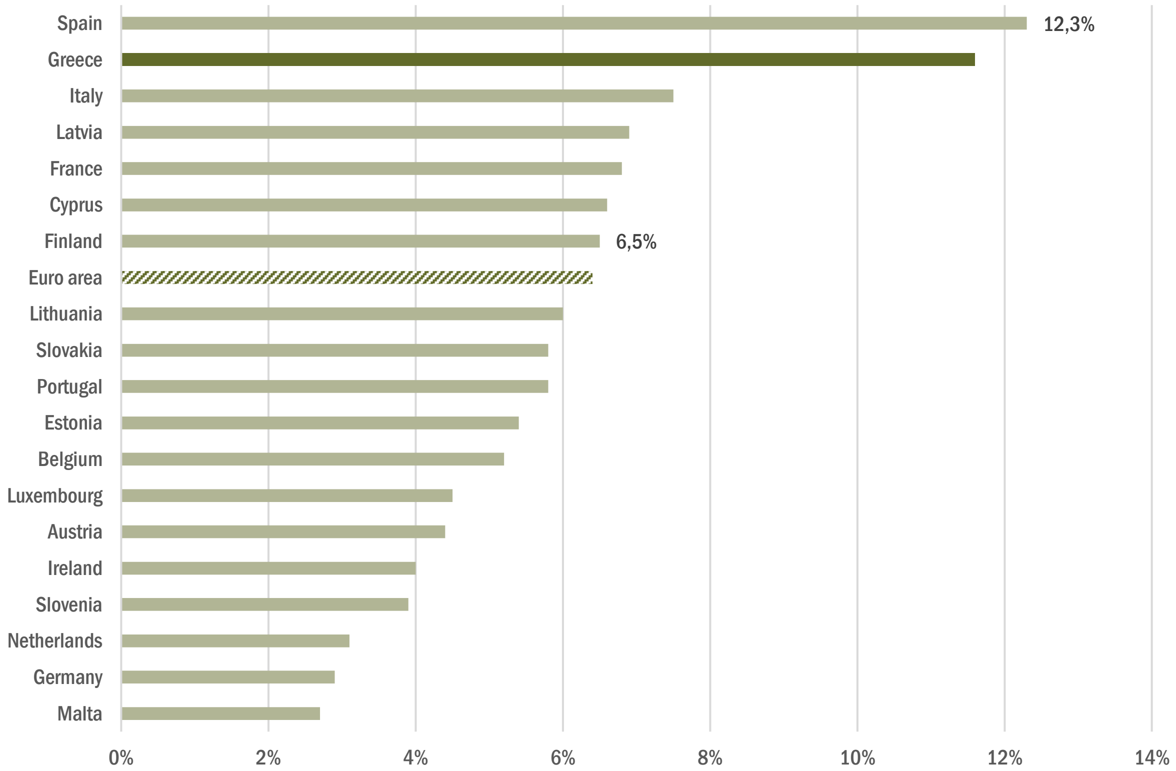


(*) employed people aged between 20 and 64

Source: Eurostat

Figure 7

Unemployment, Q3 2022 (*)



(*) % of unemployed aged 20-64 in the total active population of the corresponding age, seasonally adjusted data
Source: Labour Force Survey, Eurostat