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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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Foundation for Economic and Industrial Research (IOBE)
11, Tsami Karatassou Street, 117 42 Athens, Tel.: (+30210 921120010), Fax: (+30210 9233977),
URL: www.iobe.gr, Email: info@iobe.gr

Foreword

IOBE publishes its first report for 2022, as part of the periodic reviews of the Greek economy, at the start of a new crisis, with strong global effects due to the Russian invasion and the war in Ukraine. In the current period, the crisis is mainly manifested by a sharp rise in prices of energy and basic food commodities (e.g. wheat) due to the major role played by Russia and Ukraine in their production and exports worldwide. However, as the war continues, the negative effects will widen, through global supply chains, to more products and countries. Even if the war comes to an end soon, the restoration of trade relations with Russia will not be immediate, thus a significant part of the impact will be sustained. Like all IOBE reports, it contains four sections, accompanied by an annex of structural indicators. It is preceded by a text analysing the effects of the Ukrainian crisis and the dramatic change of the conditions. The remaining sections include the following:

The first section contains a brief overview of the report, setting out its main points, 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 fourth quarter of 2021 and the whole of the previous year, as well as the outlook for 2022, b) mapping of the economic climate in Greece in the first quarter of this year, according to the results of the business and consumer surveys of IOBE, c) assessment of the balance of the State Budget for January-February this year, as well as in the whole of last year and d) developments in the domestic financial system in January-February 2022.

The third section focuses on the performance of the Greek economy for the most part in the fourth quarter of 2021. Firstly, it maps the macroeconomic environment in the same quarter and makes forecasts for 2022, taking into account all available pandemic impact data, domestically and internationally. It then analyses developments in key production sectors in the fourth quarter of last year and in the first two months of the current year, and presents the export performance of the Greek economy for the whole of 2021. After that, it outlines developments in the labour market over the past year. It then analyses the inflation trends in the first two months of 2022. The section concludes with an assessment of the balance of payments for last year.

The fourth section includes the presentation of a study on the impact of the revised European climate policy on Greek industry and economy.

This report refers to and is based on data available until 13/04/2022.

IOBE's next quarterly report on the Greek economy will be published in early July 2022.

IMPACT OF THE UKRAINIAN CRISIS AND DRAMATIC CHANGE OF THE CONDITIONS WHILE THE ECONOMIC TIME IS GETTING DENSER

In a week, two months will have passed since Russia's invasion of Ukraine. This is a dramatic development that changes the economic and political priorities and balances. The war has a particularly high cost to people's lives in general, at least in Europe, in the short- and long-term, and ending it as soon as possible should be a priority.

The war is already affecting the economy, on the one hand, with raised prices of basic goods, and on the other, with high uncertainty. Real growth has weakened and inflation has more than doubled. After all, much of the global economy is already hurt by both the pandemic and excessive debt levels, while its fundamentals are not robust.

Higher prices of basic goods and heightened uncertainty

How high can the cost to the global economy be?

From one perspective, the economic system will absorb the shocks of the new crisis too, as it has done with other recent ones. The financial crisis crossed the Atlantic in 2008 and threatened to break up the eurozone, but the economic block eventually survived and returned to growth. Brexit didn't hurt as much as expected. The anti-globalisation rhetoric from the previous US president did not end trade. Climate change was considered to be manageable within existing rules. The unprecedented pandemic challenges have been addressed and the initially deep recession has been almost fully overcome. Perhaps it turns out in practice that the global economy has the potential to soften and absorb huge shocks without derailing.

Although the strength of the economic incentives and ties that have been created gradually over the four decades of growth that followed the oil crises, and their ability to generate income, can no longer be called into question, one cannot help but stress that problems are accumulating. The 2008 crisis eventually led to much higher levels of public and private debt, a problem exacerbated by the pandemic. The public treasury is in deficit in more and more countries. Brexit was a mutilation of Europe, which lost a dynamic part, and now it appears that along with its energy policy it needs to radically change relations at its eastern borders and live with significantly higher costs for citizens and businesses. Despite the monetary policy, which has remained unconventional for a long time and has fuelled economies with unprecedented liquidity, the willingness to invest remains subdued. Individual trends in productivity and labour, the two main growth pillars, raise concerns. The ingredients for a total economic crisis exist.

Inflation is drastically changing policy priorities

Inflation will be of special importance. Its levels before the new crisis broke out were not surprising in a global economy that had turned from deep recession to strong growth, with unprecedented liquidity from central banks and changes in consumption patterns and production chains. At the end of the year, the price pressures were expected to ease. Under the new conditions, inflation will be more than double than expected and it will last. Inflation above 5% is on the horizon of the European economy and it is drastically changing policy priorities. It can help manage real debts and public deficits, but it reduces real household incomes.

If the global economy looks like a minefield, the Greek economy also has its own challenges. Before the war broke out in Ukraine, the facts about it were relatively clear. Following the 10-year crisis, there was a challenge to put the economy on a growth path, while reducing the large fiscal and trade deficits to which it returned during the pandemic. High growth rates could have been supported over five years, based on lowering unemployment and the investment gap, raising exports to a growing global economy, using the recovery fund and having low cost of financing and debt servicing.

During this initial period, the growth of the economy was expected at 4.5% per annum, with a significant increase in household disposable income. Whether the initial window of opportunity would have led to high growth in the medium-to-long term, in order to change the fate of the Greek economy as a whole, remained unclear. Structural changes in the functioning of the public sector and markets would have supported increased investment and productivity so that, with a growth of 3.5% over the decade, the country would have left the crisis behind. Without such changes, it would have returned to stagnation, with questions about debt sustainability.

The new crisis is changing for the worse the Greek economy in the immediate horizon and raising the uncertainties in the medium term. The direct effects relate to energy costs, inflationary pressures, rising interest rates, at least nominal, as well as barriers to international trade. Uncertainty also reduces the willingness to invest. Direct visibility has been reduced and can now only be set for up to two years. A safe prediction is that during this time our economy will move on the trajectory, and to some extent with the protection of the rest of Europe. The new crisis has made Europe more compact, in a position to defend against common risks, to promote policies with greater determination. Thus, it does not appear that weaker economies will not receive the necessary support. Growth rates, however, are expected to fall to 3% or lower, mainly due to higher prices.

Direct visibility has decreased to two years at most.

Even more critical is how the medium-term outlook is affected. In sectors such as transport, energy, tourism, and primary production, key conditions are changing and there is a need for adaptations. Aspects of globalisation are being reversed and new opportunities emerge. For an economy with systematic institutional, productivity, and competitiveness deficits, an economy that must overcome wounds from previous crises, the challenge is enormous. If policies are systematically implemented that clear the landscape to support productive investment, technology and human capital, the future will be prosperous. If not, and within the wider uncertainty, the horizon will become dangerously dark.

Three specific indicators will be critical for the course of the economy.

First comes the external balance. The rise in energy prices, no matter how moderated thereafter, directly increases import costs, while the corresponding burden on domestic industry dampens its exports. Already, with last year's strong recovery, consumption growth was also reflected in high imports of goods. Balancing the trade account with a strong increase in tourism is possible, but no longer certain. The combination of increased transport costs, reduced incomes in Europe, along with wider destabilisation, will lead to a smaller increase in tourism than anticipated.

Then comes investment. The prospect of strong annual growth, at high double digits, was likely given the low base and the accumulated gap, global growth, improvement of the business environment and the Recovery Fund. Turmoil in the capital markets and inflationary pressures will act as deterrents.

Finally, the public treasury. In the past two years, deep deficits were recorded during the pandemic. Plans to increase revenue and reduce expenditure were urgently needed. As growth is expected to be lower than initially estimated, tax revenues may be squeezed, although inflation will indirectly help with this. At the same time, there is a need for new spending, mainly to protect households from high energy costs.

Return to Deep Twin Deficits

The challenges outlined above have new exogenous causes, but they interact with key weaknesses of our economy. The return to deep twin deficits during the pandemic and the long lagging behind in highly innovative productive investments and exports are reasons for vigilance in the new crisis as well.

An extension of the war will increase the cost exponentially

In addition to the costs already recorded, and as a solution to the Ukrainian crisis is not expected to come soon, one must also wonder what can happen to the world economy if the war stays active for months. A prolongation, even without more extreme scenarios of its expansion, will increase costs exponentially, testing the resilience of the economies towards the end of the year and after that.

The first and most immediate effect would be a further increase in energy and other commodity costs, with annual inflation moving close to double-digit levels in many countries and growth likely approaching a global recession. Social and political pressure on governments to cover costs through subsidies will intensify and may derail states fiscally and significantly increase their borrowing costs, although inflation will tend to reduce the costs of public debts, as well as pension and other liabilities. In the European Union there will be a search for more common policies — but the priority in allocating resources, beyond the energy sector, would be to support refugees and the reconstruction of Ukraine afterwards.

A second critical impact would be on investment. The period of war so far is short for the impact to be felt, but as the uncertainty deepens many investments will be postponed and their execution will become more expensive and complicated. An extension of the war would lead to uncertainty about the evolution of sectors such as energy, transport, and manufacturing, in which the level and nature of demand will change. The role of central banks and how they guide capital markets and investment will be of major importance, even though real interest rates can be negative for a significant period of time. The critical dilemma will be how to guide interest rates in an environment where high inflation persists and economies are approaching recession.

A combination of lower investment rates and growth with higher inflation and low visibility could lead to turbulence in capital markets. A trend towards more secure placements is expected, which will put less developed economies globally at risk, with capital outflows, currency devaluation, and deteriorating trade balances, just when their population is pressured by rising food prices. The Russian economy itself will fuel the global economy with risks as there will be episodes of bankruptcy. Within the Western world, the blow will be clearly greater in Europe than in the US, which will change the equilibrium not only in terms of trade accounts and monetary balances but also for investment and productivity in the medium term.

Turbulence in the capital markets

The war in Ukraine brings us to a moment of embarrassment and reflection. The dramatic developments, of course, go beyond the economy. But also in the economy, following the pandemic, the changes are profound and accelerating. The umbrella offered by ongoing and new European protection measures is crucial and allows support for a significant part of income. However, a crisis of such magnitude, especially when it adds to pre-existing weaknesses, cannot be without high costs.

In this unprecedented economic field, there is a danger of complacency on the one hand and extreme fear on the other. The shifting of the problem to the public treasury and from there to lending, does not provide a solution. That is why it is crucial at the same time to systematically promote policies that strengthen real output. Appropriate fiscal choices and the implementation of structural changes with a sense of urgency are conditions for a positive course of real incomes in the short term and thereafter. Otherwise, soon and abruptly, fear of the future of the economy can prevail, a development that will affect it at its clearly most vulnerable point - its capacity to attract medium-term productive investment. That is why a reform policy is doubly necessary to provide clear visibility for the future of the economy.

A reform policy is doubly necessary

For decades, the Greek economy has operated, with successes and failures, within a European framework of stability and wider economic convergence. This framework is now being challenged, which makes it even more urgent in our country to implement policies that will support strong growth in the medium term. Every difficult period, like the one we are going through, comes to an end at some point, creates opportunities, and is followed by growth. States will cope relatively better if their leadership demonstrates realism, credibility and the ability to direct economies through their transformation into the day after the crisis ends.

1 BRIEF OVERVIEW

The global economy's recovery remained strong in late 2021, compensating for the 2020 losses. A worsening outlook for 2022 from the effects of the war.

The recovery in economic activity worldwide continued at a high pace in the fourth quarter of 2021, despite the acceleration of price growth in energy products and other commodities. In October-December last year, OECD countries recovered by 4.9%, marginally stronger than in the previous quarter (4.7%), which more than offset the recession in the same period the year before by 2.7%. GDP growth in the major developed economies (G7) reached 4.5% in the fourth quarter, compared with 4.2% in the previous quarter and a 2.9% recession in the same quarter of 2020. In the 20 largest OECD economies, GDP growth in the final quarter of last year was unchanged from the previous quarter (4.9%), against a slight decline a year earlier (-0.4%). Among these countries, growth in China slowed for the third quarter, to 4.0%, from 4.9% in the previous quarter. Much stronger was the slowdown in India, to 4.9%, from 9.3% a quarter earlier. Among the most developed countries, stronger GDP growth compared to the previous quarter was recorded in Italy (+6.2%, from +3.9%), in France (+5.4%, from +3.5%) and in the US (+5.5 % vs +4.9 %). Among the rest of these countries, growth slowed, mainly in Germany (+1.8% from +2.9%), Japan (0.4% from +1.2%) and Canada (+3.3% from +3.8%). In Latin America, Argentina's economy continued to recover strongly (8.4%), after an 11.5% increase in GDP a quarter before, covering last year's losses (-4.6 %). The 2020 losses were covered in Brazil (+1.6%, compared with -1.0% last year). As a result of these trends in GDP in the last quarter of last year in the OECD countries, its average rate of change in 2021 stood in the region of 5.6%, compared with a recession of 4.6% in 2020, so the recovery over the previous year made up for losses in economic activity a year earlier.

From the above trends in countries of different economic regions at the end of 2021, it follows that the unabated, strong dynamics of GDP growth came almost exclusively from some of the most developed economies in the euro area, with the rest of the most developed economies, but also several of the developing economies being in the process of slowing the recovery, which continued for a second quarter. The outlook for many Euro area countries seemed quite good for 2022, thanks to the start-up of investments this year under the Recovery and Resilience Fund. The rapid spread of the new SARS-CoV-2 variant would have temporarily inhibited economic activity worldwide, as it did not result in a further strong deterioration in epidemiological data, such as intubations and deaths. Therefore, strong measures to protect public health were not reinstated.

The above fairly positive outlook has changed since late February, due to Russia's invasion of Ukraine and the war that is raging ever since. The immediate, significant impact of the war is on the supply of the world economy with energy goods, certain consumer products (e.g. cereals), and raw materials, as Russia produces 11% of the global petroleum consumption and 17% of the global gas consumption, while Russia and Ukraine hold very large shares in global exports of metals such as palladium, platinum, nickel, and aluminium. However, it is premature to assess the medium-term effects on supply chains. These effects will concern the countries which absorb these exports and their main trading and production partners. The size of the effects will depend mainly on the duration of the war, which will determine, among other things, the extent of sanctions on both sides, by European countries and other developed economies (USA, Canada) on the one hand and Russia on the other.

Under these conditions and trends, the expectations on how households and businesses will react and address the economic impact are redirected to policy, fiscal and monetary, instruments. However, compared with two years ago, at the outbreak of the pandemic, the response possibilities for governments are quite limited, as the robust policy interventions in 2020-2021 significantly widened the fiscal deficit and public debt, especially in developed economies. In addition, the escalation of inflation before the war had led to a gradual shift in monetary policy by the largest central banks, curtailed by early 2022. The further acceleration of war-driven inflation further limits the possibilities to contain its economic impact by monetary means. In addition, these developments have raised public sector financing costs. This trend is not of similar intensity between countries, which may be due to factors such as the level of their public debt, the potential risks they faced from the pandemic, etc. In any case, the course of their borrowing rates is an additional factor that governments should take into account when designing new support interventions against the consequences of the war. If they prove to be ineffective, the markets may react accordingly.

Given the various analysed effects of the war, the recovery of the global economy will be subjected to turbulent pressure. Prior to the war, the forecasts of international organisations for this year ranged in the region of 4.0-4.5%. They have not been updated since then, but they are expected to be adjusted downwards by around 1.5 percentage points.

A slowdown of the recovery in Greece in the fourth quarter of 2021. Overall in 2021, the economy regained most of the 2020 recession.

The recovery of the Greek economy slowed in the final quarter of last year. In particular, GDP grew between October and December last year at a rate of 7.7%, from 11. % in the previous quarter, while a year earlier it had fallen by 7.1%. Overall, GDP was 8.3% higher in the previous year compared to 2020, when it had contracted by 9.0%. Therefore, much of the recession last year, about 85% of it, was recovered. As a result, last year's GDP fell short of 2019 GDP by €2.64 billion or 1.4% of GDP.

In terms of changes in GDP components over the previous year, domestic consumption increased by 6.6%, while a year earlier it had fallen by 5.2%. The boost was mainly driven by a rise in private consumption (+7.2%), which almost offset its decline in 2020 (-7.3%). Government consumption expenditure was milder compared to household consumption (+ 3.9%), but faster than last year (+2.6%). Private-sector consumption growth was strong in the final quarter of the previous year (+9.7%), for the third quarter in a row. while public consumption decreased (-0.8 %), for the first time since the third quarter of 2020.

Investment increased over 2021 as a whole by 9.2%, slightly less than a year earlier (+10.4%). However, unlike in 2020, the increase came exclusively from an expansion of fixed capital formation by 19.6%, following a marginal decline last year (-0.3%). Stock formation, which was the sole driver of investment growth in 2020, declined by 27.2% in 2021, mitigating the overall investment growth. Especially in the final quarter of last year, investment rose by 34.3%, which was the strongest among the four quarters. This resulted mainly from a 24.1% expansion of fixed capital formation, while stocks more than doubled.

The trends last year were positive in all fixed capital categories except agricultural products. The strongest growth in absolute terms was recorded in Metal Products - Machinery (+€2.05 billion or +41.1%), reflecting the impact of the supply of military aircraft, and in Housing (+€488.7 million or +26.5%). Transport equipment (+€465.7 million or +31.9%) followed after the trend shift in vehicle sales (new passenger and light truck licences: +24.6 %, from -29.0% before). Investment in ICT equipment (+€363.9 million or +18.1%) is growing, while weaker expansion was recorded in investments in Other Construction (+243.9 million or +4.8%) and Other Products (+€239 million or +6.0%). By contrast, in Agricultural Products gross capital formation declined, by €5.7 million or 7.2%.

As regards developments in the external balance of the economy, the vaccination against SARS-CoV-2 and the absence of major restrictions on international travel and business operation in the autumn were reflected in the strong annual strengthening of international tourism (+164%) and international transport in the fourth quarter and thus in the exports of services (+63.2%). However, international tourism remained significantly below its 2019 level (-37.4% in the fourth quarter). Overall in 2021, exports of services were 38.1% higher than last year, but 20.7% lower than in 2019. Growth on the side of exports of goods continued for the sixth consecutive quarter in October-December, but at a much lower rate than in the previous two quarters (+4.1% against +9.6% and +17.0%). The growth rate of exports in the previous year averaged 9.7%, more than double that of 2020 (+4.1%). As a result, exports of goods reached a record level, both in absolute terms (€35.3 billion) and as a percentage of GDP (19.6%). Overall, exports were 21.9% higher than in 2020, with the rise coming by 73.2% from services and 26.8% from goods. That said, they were 4.3% below their 2019 level.

On the import side, growth was stronger in the final quarter of last year compared to the previous quarter, reaching 33.2% from 19.4%. Moreover, it exceeded in absolute terms the increase in exports. As in exports, the increase was stronger in services side than in goods (+43.4% compared to +29.8%). Overall in 2021, imports of goods were 13.7% higher than a year ago while imports of services increased by 23.4%. The expansion of total imports in the previous year averaged 16.4%, with 64.6% coming from imports of goods and 35.4% from imports of services. In addition, total imports were 7.2% higher than in the same period of 2019. The deficit of the external balance in national accounting terms fell by 12.3% from €10.7 billion to €9.4 billion last year.

Significant recovery in Greece in 2022, milder than originally planned, mainly due to the war in Ukraine

The economic developments since February 2020 have been driven primarily by the SARS-CoV-2 pandemic - an unprecedented factor in many decades. Two years after the outbreak of the virus in Europe, another particularly unfavourable development on its territory, which had also not occurred for many decades, has a significant impact on the geopolitical conditions and economic developments in the region and globally - Russia's invasion of Ukraine and the war raging between the two countries. The economic consequences of the war are spreading, mainly through the imposition of economic sanctions by the European Union and the US on Russia, which led to similar reactions from the Russian side. The economic effects of the war between the two countries and the sanctions imposed on Russia are reinforced by its primary role in the supply of energy goods worldwide, mainly in European countries, but also by the respective role of Russia and Ukraine in the global production of certain metals. As the conflict continues with unabated intensity, despite the longstanding parallel negotiations between the two countries, its duration and outcome cannot be predicted. Thus, it is quite difficult to assess the economic impact - as the war continues, it is possible that sanctions on both sides will be extended.

With regard to recent developments related to the pandemic, the unprecedented increase in coronavirus cases at the end of 2021, due to its new variant, was largely reversed in January, with their reduction continuing at a milder pace in February. Despite the downward trend, their level is much higher than before the spread of the Omicron mutation and its latest variant (Omicron 2). Domestically, following the relaxation of certain restrictive measures to protect public health at the beginning of March, but also in some other countries (e.g. the United Kingdom, France, Italy), the number of cases escalated significantly, returning to early January levels. That said, in Greece, the pressure on health systems (from intubated patients), as well as the number of victims, remain proportionally much lower than in previous outbreaks. As a result, no policy interventions were required during the first quarter of this year in addition to those in place in late 2021 and early this year, which were of less intensity and scope than in the past. The epidemiological conditions are now likely to improve in spring, e.g. due to higher atmospheric temperature, which weakens the spread of the coronavirus, allowing the gradual lifting of most restrictive measures.

On the side of recent price developments, inflationary pressures from the recovery of the global economy in the second half of last year and at the beginning of 2022 have escalated sharply due to high concern about the possible shortage of supply in certain energy products, consumer goods (e.g. sunflower oil) and raw materials (e.g. metals extracted in Russia and Ukraine) as a result of the war. Russia produces 11% of the global oil consumption and 17% of the global gas consumption, as well as 40% of its consumption in Western Europe. In addition, Russia and Ukraine hold very large shares in global imports of metals such as palladium (19%), platinum (13%), nickel (14%), and aluminium (6%). In late February, Canada banned oil imports from Russia, which the US also did in early March, while the UK decided at the same time to phase out imports of Russian oil and petroleum products until the end of 2022. At the end of March, the EU agreed to procure an additional amount of liquefied natural gas from the US this year to reduce Europe's energy dependence on Russia. The objective is to reach an agreement, for a larger quantity, at least until 2030. At the moment, no agreement has been reached in the EU for sanctions on Russia's oil sector. Under these developments, the average spot price for Brent oil stood at $118.1 per barrel in March, 80.5% higher than a year ago and 268.8 % higher than in March 2020, at the start of the health crisis. In the same period, the price of gas per million Btu stood at $4.92 Btu, 87.6% higher than last year and 184% more than in 2020. Clearly, these trends in energy commodity prices, as well as other commodities, will significantly slow the global economic recovery. That said, at these price levels, demand for energy products will weaken considerably, mitigating the rise in prices.

By contrast, positive economic developments domestically in the first quarter of 2022 include: a) persistent tourist flows during the winter months, with a notable recovery in March, and b) the Commission's positive first assessment for the disbursement of the EUR 3.6 billion tranche from the Recovery and Resilience Facility, while projects of the National Recovery and Resilience Plan (Greece 2.0) continue to be speedily integrated in the NSRF.

The macroeconomic forecasts are based on alternative assumptions for factors that are judged to influence key macroeconomic variables from a given point in time and in the medium term. The most important factors in 2020 and 2021 were the evolution of the health crisis in Greece and internationally, especially in the euro area, as well as the magnitude of policy interventions to contain its impact. They are included in the parameters of the macroeconomic forecast for 2022. Following Russia's invasion of Ukraine, the development of this war and the geopolitical and economic developments it will cause are among the decisive factors for the course of economic activity, not only in Greece but also worldwide. These will probably be the most important factors this year. The parameters of the forecast already include the cost of energy, which is a key production factor for businesses, mainly in industry, as well as a basic category of goods for households. An additional, important factor for the course of economic activity in the new year will be the pace of implementation of projects that are part of the Recovery Fund. The significant revision of GDP in the second and third quarters announced at the time of the publication of the data for the last quarter has also affected the macroeconomic projections. As some of these factors have a significant correlation between them, e.g. the evolution of the war and energy costs, the possible alternative developments will not be independent. Given this, two scenarios of macroeconomic developments have been developed for this year.

The baseline scenario is based on the assumption that the war will not end in the coming period, in spring or early summer, but will continue after it. Energy costs will then remain at particularly high levels for a long time, from escalating sanctions, a general reluctance to import from Russia, and the inability of energy supply chains to adapt quickly to such a major disruption. The average annual rise in the price of Brent oil is expected in the region of 30-35%. In response to these price dynamics, extensive measures will be implemented to subsidise energy consumption and income support to vulnerable social groups, providing a significant boost to the economic activity of households and businesses. However, inflation will be on average at rates not seen in many years. With regard to the health crisis, no further significant outbreak is expected, particularly with regard to intubations and deaths, so no generalised restrictive measures will be reintroduced. Seasonally targeted measures may be reintroduced, also for vulnerable population groups (e.g. elderly, unvaccinated). Under these conditions internationally and in Greece, a further expansion of the tourist season is expected, towards spring, yet international tourism flows will grow less than expected earlier this year, due to a deterioration of the international environment and a milder economic recovery. Taking this into account, revenues from international tourism services will strengthen compared to 2021, reaching about 70-75% of their 2019 level, an increase corresponding to an enlargement compared to 2021 by €2.1 billion to €3.0 billion. The war will have a significant impact on the recovery in the euro area, which is expected to be 1.5 to 2.0 percentage points lower compared to the European Commission's latest pre-war forecast of 2.0-2.5%. As regards the utilisation of RRF, it is assumed that the budget revenue target for 2022 (subsidies of €3.4 billion, loans of €1.85 billion) will be met and projects already included in the Recovery Fund will be implemented to a high extent, leading to the relevant targets on expenditure (€3.2 billion) and new loans (€586 million) being met or exceeded.

The main difference between the base and the alternative scenarios for 2022 lies in the predicted evolution of the war and its consequences. In particular, in this scenario, a ceasefire agreement is reached in spring or early summer. Energy costs will then begin to fall mildly from the current very high levels this summer, as demand for imports from Russia will gradually increase and supply chains will be restored. However, also in this case energy product prices will remain significantly higher in the second half of 2022 compared to the corresponding period a year ago. The average annual change in the price of Brent oil is expected in the region of 20-25%. A slightly smaller increase in energy prices will allow for a significantly smaller scope of energy consumption subsidy measures and income support for vulnerable social groups. Subsequently, their positive effects on the economic activity of households and businesses will be milder. Inflation will average lower levels than in the baseline scenario, but it will be one of the highest in many years. As regards the health issue, the assumptions are the same as in the baseline scenario. Under these conditions internationally and in Greece, a new expansion of the tourist season is expected in this scenario, towards the spring, as well as a greater increase in international tourism flows compared to the base scenario. Revenues from international tourism services will reach the region of 80-85% of their 2019 level, an increase corresponding to an expansion compared to 2021 by €3.9 billion to €4.7 billion. The war will affect the recovery in the euro area less than in the baseline scenario, with growth 1.0 to 1.5 percentage points lower than the Commission's latest pre-war forecast of 2.5-3.0%. Differences in the absorption of RRF funds and the implementation of the related projects are not expected, as these processes must be independent of the evolution of the war, so this aspect does not differentiate between the baseline and the alternative scenario.

In detail, the alternative assumptions about the war relate to the duration of the war and the extent of the sanctions to be imposed by the opposing sides. The two warring "camps" at the diplomatic level are on the one hand Russia, and on the other, the European Union countries, the United Kingdom, the United States, Canada and some other countries, which have imposed sanctions on Russia. As to the impact of the duration of the war, whether it will extend beyond spring is crucial. If the conflict continues in the summer months or later, it will sustain energy costs at a particularly high level, at a time when much of the energy supplies take place for the next winter. In addition, the production of other internationally traded goods from Russia and Ukraine, with significant shares in the relevant global division of labour (e.g. raw materials, food), will be significantly affected, disrupting the functioning of the relevant supply chains. Negative effects will be caused by a sharp escalation of economic sanctions on both sides. The International Energy Agency, which has 31 member countries, recently estimated that by April, 3 million barrels of Russian oil production could be missing from the markets due to sanctions on Russia, but also because buyers avoid Russian exports. This shortage cannot be replaced, at least soon, by production from other countries. That said, there may be changes in supply chains to meet needs that were met before the war by the two countries, such as the expansion of Europe's supply of natural gas from the US. Obviously, should the war end earlier in spring, the above effects and the changes in the global division of labour will be milder.

With respect to recent developments regarding the pandemic, despite the rapid spread and prevalence in the first quarter of 2022 of the Omicron mutation, together with its variant Omicron 2, since February most countries have gradually lifted or repealed public health protection measures. This trend is due to the rather milder symptoms of the dominant mutation for the vast majority of those who get sick. Thus, pressure on countries' health systems has weakened since the autumn, which makes it possible to limit the scope and intensity of protective measures. Because of this, international passenger transport, as well as domestic tourism, strengthened during the winter, in Greece too. At the same time, important sectors of the Greek economy, which last year were suspended in the first quarter, were in operation a year later, with mild restrictions (e.g. Retail Trade, Food Services). However, in a few sectors, strong restrictions (e.g. Entertainment-Recreation) were imposed upon the emergence of Omicron, which de facto led to the closure of many of their enterprises.

New measures subsidising the consumption of electricity and natural gas have been implemented since January to halt energy price increases. Since last November, the payment of public utility charges for businesses connected to the middle voltage grid has been suspended. For April electricity subsidies were broadened for all types of tariffs largely under the influence of a sharp increase in oil prices. Micro and small and medium-sized enterprises with a capacity of up to 25 kVA and bakeries were granted an additional subsidy of €100/MWh, as well as a retroactive subsidy for the quarter of January-March. In addition, a fuel card was established for individuals with household income of up to €30k, for the period April-June. The excise duty for diesel is expected to be reimbursed to farmers shortly. The total budget of the energy interventions announced in the first four months of this year, including transfers to vulnerable social groups (low-income pensioners, people with disabilities, beneficiaries of minimum income, etc.) reaches €1.9 billion. As the prices of energy products remain high, it is expected that the measures to support households and businesses will be maintained.

The extension of some supportive policy interventions due to the pandemic, and in particular those that ease the obligations coming from these interventions, will support the operation of a large part of businesses in the first half of this year. The budget for pandemic interventions for 2022 is €3.3 billion. This does not include the measures for the entertainment-food services sectors and, more importantly, the measures taken so far to stem the pressure from high energy costs. If it is deemed necessary to extend these measures or to take additional measures, the related costs will expand further. Therefore, expenditure on support interventions is expected to be well above the target in the 2022 budget, resulting in a significant overrun and a burden on the budget balance. In addition, the new interventions will to some extent substitute last year's extensive measures, which contributed to the high pace of recovery. However, unlike the previous two years, many businesses will receive support while in operation, rather than under suspension, helping them to maintain jobs and meet their current obligations. By contrast, unlike the previous two years, the new interventions will not affect the formation of fixed capital.

Despite the new, unprecedented outbreak of the pandemic in late 2021 and early 2022, the year-on-year growth in tourism flows slowed down only slightly compared to previous months. The trend in these months could be seen as a first indication of the sentiment for the coming summer. During the winter, international arrivals at Athens International Airport were 43.5% lower than their 2019 level. The fall in AIA eased in March, the first month of the war in Ukraine, to levels prior to the recent outbreak of the health crisis (-30.6%), highlighting the significant tourist interest and the potential for expansion of the tourist season.

In the field of monetary policy, the ECB significantly reduced the pace of net purchases under the Pandemic Emergency Purchase Programme (PEPP), which ended in March. Following the conflict in Ukraine, the ECB decided in mid-March that in case of new fragmentation in the markets related to the pandemic, PEPP reinvestments can at any time be flexibly adjusted in terms of time, asset classes and countries. Recall that the reinvestment of funds from maturing securities under the PEPP has been extended until at least the end of 2024, instead of the end of 2023 as previously foreseen. Especially for Greece it was decided that this flexibility could include the purchase of bonds issued by the Hellenic Republic in addition to the value of the bonds reinvested at maturity, in order to avoid a disruption of markets in that country, which could negatively affect the transmission of monetary policy to the Greek economy, while it continues to recover from the effects of the pandemic. The focus on Greek government bonds is considered to stem from the fact that, due to their insufficient credit rating, slightly below the investment grade, they were excluded from support through the APP. Therefore, Greece can henceforth receive from the ECB more liquidity support than other countries under the PEPP, which strengthens confidence in the financing of the domestic economy and its prospects.

The domestic banks continue to expand the use of ECB instruments to raise liquidity that emerged in response to the exceptional circumstances of the pandemic. Under the Pandemic Emergency Purchase Programme, the ECB had made by the end of March, when net purchases of securities from all countries under this programme were completed, total cumulative purchases of €1.72 trillion. This amount was lower than the initially planned purchases envelope of €1.85 trillion. The net purchases from Greece in particular reached €38.5 billion at the end of March. Other liquidity facilities by the ECB to contain the impact of the pandemic included non-targeted Pandemic Emergency Longer-term Refinancing Operations (PELTROs) and Targeted Longer-term Refinancing Operations (TLTRO III). Against this background of financing possibilities, the Eurosystem's liquidity raising of Greek banks averaged €38.5 billion in April 2020-February 2022, totalling €50.84 billion at the end of the period. In the latest three months for which data are available (December 21-February 22), capital raising escalated sharply, reaching €3.98 billion, compared to just €50 million in the preceding quarter. Therefore, the availability of funds from the ECB to the banking system for, among other goals, providing financing to enterprises is high and has been further strengthened significantly in the recent period. The use of these resources can be crucial for the Greek economy to exit the pandemic at a steady, significant pace of recovery.

The continued growth of private sector deposits (households and non-financial corporations), at a high pace, since the beginning of 2019 has also boosted the possibility of granting loans. Following their average expansion in 2020 by 9.7% or €13.0 billion, private deposits rose faster last year, at an average annual rate of 13.0% or by €19.3 billion. In the recent quarter of December-February, the expansion of deposits slowed slightly to 9.9% or by €15.8 billion. The new growth in this period came almost equally from higher household deposits, by €8.1 billion (+6.3 % compared to a year ago) and businesses, which expanded by €7.7 billion (+24.0%).

While the ample liquidity from the ECB, the strong upward trend in private deposits over the past two years, as well as the activation of the loan arm of the Recovery Fund are conducive to credit growth by banks this year, there are also some factors that mitigate this momentum. The most important are the suspension of payments of bank loan instalments until at most the end of 2021 and the continued in the first quarter of 2021 partial subsidy of loan instalments (Bridge II programme), which do not allow the real dynamics in non-performing loans (NPLs) to transpire. Also, the very strong inflationary pressures due to the war in Ukraine and the uncertainty it causes about developments in the global economy are expected to lead households and businesses to use part of their deposits mainly to cover their current expenses. According to the Financial Stability Review of the Bank of Greece, the balance of non-performing loans under legal protection in December 2021 stood at €1.4 billion, i.e. 4.9% of on balance sheet NPLs.

The current resurgence of uncertainty due to the war in Ukraine is also among the causes that will weaken the demand for capital from businesses and households, compared to what was expected before its start. That said, due to the inflationary pressures it has caused, it is possible that interest rates will rise in the coming period, so some firms may rush to make use of the current, better financing conditions. In addition, a sustained, vigorous recovery in some sectors will boost demand for bank credit. For example, in Industry, the production index rose sharply last year, on average by 9.9%, following a much milder decline in 2020 (-2.0%). This trend is related to the strong growth in exports of goods, with the increase in non-petroleum products in the same period of time reaching 28.0%, highlighting the high competitiveness of certain industrial sectors and facilitating their financing. Recovering a significant part of previous tourism losses in some regions will also contribute to a greater demand for liquidity from the banking system.

As regards the evolution of non-performing loans (NPLs), the latest data refer to the last quarter of 2021. On this basis, their strong quarter-on-quarter decline continued in this period, by €6.1 billion or 24.0%, to €19.4 billion or 12.1% of total loans. A year earlier they stood at €57.9 billion or 32.8% of loans. The strongest contraction in NPLs occurred in the fourth quarter in business (-€2.95 billion or -17.4 %) and housing loans (-€1.66 billion or -32.1%). Overall, the reduction was achieved primarily through transfers and securitisations of portfolios, mainly through the use of the programme that provides government guarantees to securitisations of loans of credit institutions, known as Hercules, and less to receipts through active management (loan restructuring/settlement, arrears collection, etc.). Loan sales under this programme reached €26.2 billion in the first nine months of the previous year. Following these developments, the level of NPLs is around €99.9 billion or 83.8% below their peak level from March 2016.

In light of the favourable developments for the accumulation of capital from the banking system mentioned above, the provision of more bank credit to non-financial corporations has continued. However, the pace weakened sharply in January-September last year and has since been much lower than at the beginning of the year. Specifically, it stood at 3.0% in December 2021-February 2022, compared with 9.4% a year earlier. Over the same period, the average rate of credit contraction to households (2.3%) was virtually unchanged, both against the 2021 average (2.5%) and compared to a year ago (also 2.5%).

The weakening of credit growth to non-financial corporations is not related to a similar trend in overall financing of the economy by the banks, which expanded much faster in December 2021-February 2022, by 10.2%. The weaker growth of loans to the business sector is mainly related to the strong growth of lending to the general government, which reached 33.1% on average in the recent quarter. Therefore, the increase in the interconnection of the banking system with the government continues, as noted in a recent report of the Bank of Greece. This trend creates uncertainty about the financing priorities of banks and, more broadly, whether the significant additional liquidity of recent years is used for productive purposes. The weaker growth of loans to the business sector is also due to the absence of emergency liquidity programmes to address the effects of the pandemic.

The provision of liquidity to companies continues to take place on particularly favourable terms: the average interest rate for new maturing loans to non-financial corporations stood at 2.75% in December-February, marginally higher than in the previous quarter (2.64%), when it had reached a historical minimum since at least 2010. In new consumer loans to households, the corresponding average interest rate stood at 10.57%, higher than a quarter ago (10.33%). Unlike the interest rates on loans to non-financial corporations and freelancers, the current rates for households are the highest since the second quarter of 2003. Following the strong, unprecedented inflationary pressures in the euro era, it is now considered likely that the ECB will raise its intervention interest rates in the coming period, which will trigger a similar trend in domestic interest rates. Given this, the current financing conditions for businesses are particularly beneficial.

The lower interest rates for bank lending to companies and freelancers in 2021 are also related to the strong decline of Greek government borrowing rates. As stated in previous IOBE reports, this trend is due to the evolution of Greece's creditworthiness and to the ECB's exceptional monetary policy measures in response to the pandemic. In light of these effects and the ease of the pandemic since last summer, the 10-year bond rate reached its minimum level in August 2021 (0.59%). This January, Fitch maintained last year's BB rating, upgrading the country's outlook to positive from stable. This opens the way for an upgrade to BB+, i.e. one grade below the investment class.

Despite these clearly positive developments, the 10-year Greek government bond yield rose continuously in September 2021-January 2022, by 103 basis points overall, reaching 1.62%, the highest rate in 20 months. At the same time, the corresponding yield on German bonds rose by 42 basis points to -0.12%. As a result, the spread of the Greek bond expanded by 61 points, reaching 174 points. Therefore, the yield of the Greek 10-year and the spread against the German bund increased notably in the five months before the war in Ukraine. Under these trends in performance and the developments in its credit rating, the Greek government made only one bond issue so far this year in January, with a ten-year maturity, at a rate significantly higher than that of the previous bond issue of the same maturity last June, at 1.84% from 0.88%. The issue raised €3 billion, the vast majority from foreign investors (84.5%), with the total bids reaching €15 billion. Following the outbreak of the war, the yield strengthened significantly, reaching 2.9% in early April, with the spread exceeding 200 bp. This upward trend, combined with the Greek government's borrowing target of €12 billion from the markets in 2022, hampers new bond issuances in the current period. However, note that in previous IOBE reports on the Greek economy, the possibility that international financing conditions would change and deteriorate, especially when exceptional liquidity support interventions by the largest central banks worldwide would be greatly reduced or completed, was repeatedly stressed. The war in Ukraine and its impact on capital markets are making some businesses with investment plans reluctant to implement draw liquidity by issuing bonds.

the start of the use of the recovery fund's loan resources is expected to reverse the widespread slowdown in credit growth to businesses. In December, the Ministry of Finance and six credit institutions signed operational agreements for the utilisation of €970 million loan resources. Under the process foreseen by the Recovery Fund, the credit institutions have made public calls for expressions of interest to investors wishing to receive loans from "Greece 2.0" for the implementation of their projects. In addition, an operational agreement has been concluded with the European Investment Bank (EIB) for up to €5 billion of the total €12.7 billion, while a corresponding agreement was concluded with the European Bank for Reconstruction and Development (EBRD) to co-finance private investment. About €500 million has recently been disbursed to the EIF. The debt resources that have so far been allocated to the banking institutions are those raised last year. An additional €1.85 billion is planned to be raised this year, which will be allocated to the above categories of credit institutions. The extensive restriction of NPLs provides significant degrees of freedom for banks to provide credit this year and in the coming years.

While these positive developments, which create corresponding prospects for the provision of credit, are taking place, there are still barriers to finance businesses and households. These relate to existing debt obligations and in particular their arrears. The war in Ukraine and its impact on energy costs are making some businesses with investment plans reluctant to implement them. Thus, they are expected to keep a waiting stance until a ceasefire agreement can be foreseen.

With regard to the regular government funding of investments by the Greek State, through the Public Investment Programme, the relevant target set in the 2021 draft budget for last year was €6.75 billion excluding COVID-19 transfers. Over the previous year, PIP payments amounted to €8.7 billion. However, excluding the pandemic expenditure of around €2.9 billion or 32.2% of its total, the programme's investment grants totalled €5.8 billion. Therefore, they were short of the target of last year's budget by €1 billion. For 2022, the preliminary draft state budget earmarked €7.8 billion through the PIP, excluding expenditure under the Recovery and Resilience Plan, as well as emergency interventions due to the health crisis. With the supplementary budget presented at the beginning of April, the appropriations foreseen through the co-financed part of the PIP increased by €600 million, so its total budget amounted to €8.4 billion. In the first two months of this year, support through the programme reached €1.33 billion, while excluding pandemic interventions, they amounted to €1.1 billion. This level is well up year on year (€672 million) and against the spending target for the two-month period (€900 million), which is seen as a first indication of the expansion of support for investment activity by the PIP compared to 2021.

Regarding the developments in the field of privatisation, the strong uncertainty about the pandemic dynamics in most of the first half of 2021 had a negative impact on HRADF's activity and investment interest. Although a number of tendering procedures were completed during the second half (Egnatia Odos, DEPA Infrastructure), the proceeds from privatisations made last year are those from Hellinikon SA, the Afantou Golf Course and the granting of rights of use for radio frequencies. In the 2022 budget, they were estimated to have reached €625.7 million, accounting for 42.6% of the 2021 target. Thus, the effect of privatisations on investment activity continues to be lower than expected. The procedures required for the formal completion of the tenders for Egnatia Odos and DEPA Infrastructure will be completed, and the corresponding fees will be collected, in 2022. These are the most important components of the 2022 privatisation revenue target of €2.151 million (91.7% of the target). Given the ongoing actions since last year, coupled with some new actions planned for this year, the target should have been set higher.

Taking into account for the macroeconomic projections the recent and anticipated developments related to the war in Ukraine and its impact, such as the strong increase in energy prices and the weaker recovery of the global economy, as well as the fiscal interventions to contain these effects, the momentum of the COVID-19 pandemic, and the less-than-anticipated rise in international tourism, it is expected that most of the restrictions caused by the pandemic will be lifted in the spring, while any further escalation will not exceed the current, mild levels. Thus, the physical operation of sectors suspended in previous years and where a significant part of private consumption takes place (Retail Trade, Tourism, Food Services, Arts-Recreation, Transport, etc.) will not be interrupted again, especially in the first quarter. Household consumption will also be stimulated by the expansion of employment in these sectors compared to a year earlier, a trend already recorded since the second half of 2021. Jobs will also be created by higher investment, e.g. in highly export-oriented manufacturing branches, in Tourism, as well as by the greater contribution of the public sector to investment activity (larger PIP, the recovery fund). Household consumption expenditure will continue to be supported by savings accumulated during the pandemic.

By contrast, the expansion of household consumption spending will be curbed by exceptionally high inflation. Consumer confidence will be dampened by the general uncertainty while the war in Ukraine is raging. In the baseline forecast scenario, in which the war will continue after spring, these effects will be strong. Inflationary pressures on consumption will be mitigated by household support interventions (subsidy for electricity, gas, and petrol consumption, increased heating allowance, extraordinary transfers to vulnerable social groups, etc.). If the duration of the turmoil will be long, the duration and scope of the measures to address it will be similarly extensive, largely replenishing the emergency support measures due to the pandemic in the previous two years. The real disposable income of a segment of the population will be strengthened by the middle of the year by the minimum wage raise. As a result of these effects on employment, real disposable income, and consumer confidence, household consumption is expected to expand in the baseline macroeconomic forecast scenario by 1.5% to 2.5%.

The alternative scenario differs from the basic scenario in terms of the war duration and hence its impact. In this scenario, the hostilities are expected to end in spring or early summer, resulting in sooner restoration of the supply chains, with the high energy cost falling accordingly. However, it will remain significantly higher than last year throughout 2022, keeping inflation at a fairly high level, but lower than in the baseline scenario. More broadly, household uncertainty will deteriorate less and consumer confidence will be restored more quickly. Meanwhile, in this case, fewer support measures for the energy cost will be needed, so these will fall significantly short of the household support interventions last year and in 2020. As a result, household consumption expenditure is expected to grow stronger than in the baseline scenario (+3.0% to +4.0%).

On the consumption side of the public sector, as already mentioned, the war, depending on its duration, necessitates the implementation of additional support measures. As the pandemic continues in 2022 with relatively high intensity in terms of some indicators (intubations, infections), the need for relevant materials and equipment will be maintained high. An expansion of public sector employment is planned for this year, with 20,600 recruitments and appointments. In the first half of the year, staff costs will be boosted by the recruitment of 11,700 primary and secondary teachers in the third quarter last year. The strengthening of employment and the many exceptional support interventions in the event of a long war will mitigate the reduction of public consumption spending to about 1.5-2.5%. If the conflict ends within the coming months, the additional interventions that will be needed will be fewer, allowing for a substantial reduction of public consumption expenditure after two years of high deficits due to the measures against the pandemic (-3.5 to -4.5%).

Regarding investment, if the war in Ukraine continues over a long period, it may have an impact on some of its drivers, most likely in the medium to long term (baseline forecast scenario). Clearly, these drivers include the energy costs and the prices of certain other raw materials which came to a significant extent from Russia and Ukraine, the increase of which has a significant impact on the companies' operating costs and inputs and subsequently on their profit margin. Moreover, the disruption that will occur in the value chains involving not only Greek companies, but also companies from other EU countries, the main export destination of Greece, whose domestic companies are suppliers, change the prospects of businesses and investments, in a way and to an extent, which is premature to assess. Of course, it is possible that such developments will strengthen the role of certain domestic companies with competitive advantages in activities dominated by Russian companies in the past. The duration of the war will be a decisive factor for the degree of manifestation of the above effects.

With regard to other factors that determine investment decisions, the high corporate lending since 2020, which is expected to continue this year at a much lower pace, has created the possibility of making investments for a significant part of businesses, as highlighted in previous IOBE reports on the Greek economy. Investment activity is most likely to expand for companies from manufacturing activities whose demand is either related to or resilient to the health crisis (e.g. medicines, computer manufacturing, plastics). The strong recovery in international tourism in 2021, which will continue this year in both scenarios, milder than expected before the war, will rekindle investment activity in the sector.

The resources made available under the Recovery and Resilience Plan (Greece 2.0), together with the domestic resources leveraged for the investment projects selected for support, will outweigh the significant weakening of the positive effects from the pandemic-related exceptional support interventions by the public sector in 2022. As mentioned above, the Recovery and Resilience Fund (RRF) already includes the implementation of 185 projects, with a budget of €8.05 billion. From the fund, €4 billion have been disbursed as an advance of the funds allocated to Greece, while the first tranche of €3.56 billion was also recently disbursed. The first tranche is the expected revenue for the implementation of Greece 2.0 this year. On the side of grants, the budget forecast reaches €3.2 billion. As noted in the macroeconomic scenarios, the implementation of the Recovery Plan is largely independent of developments related to the war and the pandemic, because the relevant procedures are not affected. Support for investment through these channels will therefore depend on the effectiveness of the involved stakeholders, both domestically and at the level of the European Commission.

In the other part of the public sector's support for investment activity, through the PIP, the higher-than-2021 target of the PIP support for this year, which was extended with the supplementary budget by €600 million (a total of €8.4 billion), the launch of the NSRF 2021-2027, and the experience of implementing the programme in the past, lead to the forecast that the expenditure of the PIP will be significantly higher in 2022. It is expected to reach at least €7.5 billion, from €5.8 billion last year (excluding support measures), providing correspondingly greater support to investment activity.

The underperformance of the privatisation programme in 2021, largely due to the pandemic impact, will result in its small contribution to investment activity this year, given the long maturation period required for investment of this scale. However, the recent completion of the concession of Hellinikon, Egnatia Odos, DEPA Infrastructure, and HEDNO creates very significant medium-term prospects for investment, economic activity more broadly, and employment.

Taking into account the above expected effects, within the new global economic environment shaped by the war in Ukraine, notably the significant growth of credit to businesses, the upward momentum of international tourism, the start of RRF resource utilisation, and the exceptionally high energy cost, which has a negative impact mainly on Industry, investment is expected to expand in 2022 under the baseline scenario of macroeconomic developments by 13 to 15%. If the war ends in the next two months, allowing a gradual improvement in the economic environment throughout the second half of this year, the expansion of investment will be stronger, in the region of 17-20%.

The external sector of the economy is expected to be relatively stronger affected by the war. Section 3.6 highlights the trade relations between Greece and the EU with Russia and Ukraine. The analysis shows a significant import dependency of Greece and the EU on energy goods and specific raw materials (e.g. coal and nickel ores respectively). The EU also has a high import dependency on Ukraine in oils and fats. The export dependence of our country and the EU on Russia is much smaller compared to imports, while it is even lower with Ukraine. However, as a fairly large part of the imports of petroleum products are exported after processing in Greece, then if the former declines, the latter will also be negatively affected. At present, the EU has not decided on sanctions on Russia for its energy exports, so there is no supply-side pressure on these European imports. Of course, if the war continues for a long time, as envisaged in the baseline macroeconomic scenario, such measures cannot be ruled out. In any case, the sharp rise in the prices of energy products will negatively affect their demand, domestically and in the countries where Greece exports fuel. The extent of the effect will depend on the elasticity of demand for these products in each country. As energy goods are among the key consumer products, in the vast majority of countries their demand is inelastic, so the quantity demanded will be affected less than the rise in prices. Such a development will prevent a large contraction in the volume of these domestic imports and their exports. The measures to subsidise the consumption of energy products will also prop up imports.

The remaining exports of goods will be affected by the expected slowdown in the recovery mainly in the euro area, depending on the duration of the war. However, their trend will remain positive, but weaker than projected at the beginning of the year. On the side of exports of services, the dynamics of tourism remain clearly positive, based on the international arrivals data even after the Russian invasion, but also according to pre-bookings. If economic activity is severely affected by geopolitical developments, the expansion of international tourism will be weaker than pre-war estimates. A variety of effects will be exerted on international transport, as the war seems to affect air transport, but it favours maritime transport, primarily of energy products. As a result of the revised trends in factors affecting exports, an increase of 7-9% is forecast in the baseline forecast scenario. In the alternative scenario, the rise will be stronger, due to greater recovery of international trade from the assumed end of the war in the second quarter (11-13%).

While the imports of energy products, as well as some raw materials, will be affected by their strongly higher international prices, the weakening of demand is expected to be milder among the remaining product categories, as private consumption and investment will expand. That said, domestic demand for travel services is anticipated to take a stronger hit due to the concerns at the beginning of this year about the new variant and the much higher transport costs due to the war, which has made international tourism a luxury item. Taking into account the above factors, it is projected that imports will expand by 6% to 8% this year under the baseline scenario, with their expansion higher under the alternative scenario (10-12%).

State Budget 2022: targets met in January-February due to expenditure restraint

According to the state budget execution data, in January-February this year, its deficit reached €910 million, against a deficit target of €2.0 billion for that period and a deficit of €3.3 billion a year earlier. The primary balance of the State Budget in the same period was in surplus, by €840 million, as opposed to the deficit of €1.5 billion a year ago and against a deficit target for the same period of €239 million. In particular, these were €2.18 billion lower than the target, totalling €9.7 billion. This development is mainly due to a €1.5 billion reduction in the expenditure on the acquisition of fixed assets, due to the delay of a similar amount in the payments of military equipment programmes. In addition, there was a shortfall in current transfers to EU agencies and states by €194 million and guarantee calls by €103 million. Consequently, the expenditure restraint is not due to savings.

The net revenue of the State Budget fell short of the relevant target by €1.1 billion, almost exclusively from fewer transfers, by €1.96 billion, mainly due to the non-recovery of the expected tranche from the Recovery Fund, amounting to €1.72 billion. However, its disbursement took place at the beginning of April, so this shortfall has been covered.

Unemployment declines in 2022 from job creation mainly in sectors boosted by household consumption and exports

Under the conditions formed domestically by the strong recovery, the unemployment rate for 2021 as a whole fell by 1.6 percentage points, to 14.7% from 16.3% in 2020. Compared to 2020, the number of unemployed in 2021 decreased by 77.3k or 10.2%, to 677.7k. The decline in the number of unemployed is due by 68% to employment growth and by 32% to a reduction in the labour force.

At the branch level, the strongest increase compared to 2020 in absolute terms took place in the Primary sector, where employment increased by 34.0k people, or 8.3%, in Public Administration-Defence - Compulsory Social Security (+33.4k employees or +9.5%), in Professional-Scientific-Technical activities (+23.1k or +10.1%) and in Manufacturing (+18.9k or +5.1%). By contrast, the biggest decline in jobs in the third quarter took place in Education (-12.2k or -4.0%), Financial-

Insurance Activities (-7.5k or -8.5 %), Wholesale-Retail Trade (-6.0k or -0.8%) and Administrative-Support Activities (-3.4k or -4.0%).

Regarding the anticipated employment and unemployment trends in 2022, as the effects of the pandemic on economic activity are not expected to fluctuate significantly and deteriorate in 2022, the war in Ukraine, through its effects on inflation and exports, the further strengthening of tourism, and investment will have the most significant impact on the labour market.

In particular, as domestic consumer demand will strengthen less than expected before the current geopolitical developments, due to exceptionally high inflation, the operation of businesses in retail trade, tourism and food services, with few pandemic restrictions in the first four months of this year and then no restrictions thereafter, will result in a smaller increase in their employment compared to the one anticipated before the war. Subsequently, the secondary effects on employment from the demand for new workers will also be smaller. In contrast to these negative developments, additional interventions to contain the energy crisis (subsidy for the consumption of energy goods, aid for people with disabilities and beneficiaries of low pensions, etc.) will play a role, with their impact depending on their duration or further expansion (e.g. reduction of VAT on food). Both effects on consumer demand and employment, from the war and countervailing measures, will be milder if hostilities end relatively soon, within the second quarter (under the alternative macroeconomic scenario).

The pressures from the war on the eurozone recovery will, as mentioned above, have an impact on domestic exports, mainly of goods. By contrast, the steady positive dynamics of the exports of goods in recent years, which have led to successive historical peaks, will to some extent stimulate employment, both directly and indirectly, through industrial investment. The negative effects on tourism are expected to be mild, with international traffic at major airports remaining strong in March and summer bookings still at high levels. Combined with the significant increase in international tourism and revenue last year, a strong expansion of jobs in the sector is expected this year.

The increase of investment in export-oriented sectors of industry and tourism, the use of the recovery fund resources, and the start of investment in significant privatisation deals, such as in Hellinikon, will significantly boost job creation this year, among other sectors, in Construction.

The public sector will boosting domestic employment in 2022. About 20.6k recruitments and appointments have been planned for this year, under the "one recruitment for each withdrawal" rule, based on departures not only in 2021, but also in previous years.

One development whose impact on employment is difficult to predict is the change in the minimum wage since 1 May. Its effects depend on its extent. Since it has been announced to increase by 6% to 8%, the minimum wage is expected to rise to a level slightly higher than €700. The hike will affect mostly enterprises in sectors where a large proportion of workers are paid at the minimum wage, e.g. with a high share of unskilled labour. Therefore, they will have to cope with both the current strong increase in energy costs and the increase in their wage costs. In cases where this is not possible, at least temporarily, during the energy crisis, employment schemes other than full employment, e.g. part-time work, may be selected instead.

Taking into account the above effects on the labour market, the estimate for the unemployment rate in the base scenario is in the region of 13.5%, while in the alternative scenario in the region of 12.8-13.0%.

Strong escalation of inflationary pressures in 2022, from high energy costs and stronger demand

Consumer prices are suffering the strongest direct effects of the turmoil in the world economy as a result of the war. These effects have intensified the sharp price rise from the rapid recovery of the global economy that began a year ago. The domestic Consumer Price Index (CPI) increased on average by 7.5% in the first quarter of 2022, against a decline of 1.6% a year earlier. The strong deflation last year favoured the rise a year later, causing a positive base effect. Inflation in this period has been the highest in 25 years since the beginning of 1997. In terms of the effects of its key components, its strengthening in January-February, for which data on components are available, is mainly due — as expected — to the strongly positive effect of energy goods, by around three percentage points. Next, with a small margin, comes the strengthening role of domestic demand, with 2.7 percentage points. The effect of indirect taxation on prices was marginally negative (-0.2 percentage points).

With regard to expected developments in consumer prices for the rest of 2022, energy prices are expected to remain fairly high in both macroeconomic forecast scenarios, due to sanctions on Russia's oil exports and the general decline in energy demand from this destination, despite the release of strategic reserves by the United States and other members of the International Energy Agency. Besides, the recovery of the global economy will continue this year, which will broaden oil demand compared to 2021. Based on the assumptions of the two macroeconomic scenarios of IOBE, in the base scenario the oil price rise this year will reach 30-35%, while in the alternative scenario it is between 20-25%. The measures to subsidise electricity, gas and fuel consumption will partially mitigate the strong inflationary effect of energy product prices.

In addition to energy consumption subsidies, other support measures — aid to vulnerable social groups (disabled, low-pension beneficiaries, minimum income beneficiaries, etc.) to contain the effects of the energy crisis will prevent a significant weakening of consumer demand. In addition, they will, depending on the duration of their implementation, replenish to some extent the extensive support measures against the pandemic last year, which will be much smaller this year. The reduction of property taxation and the increase in the minimum wage from the beginning of May will boost disposable income. In addition to these support interventions and administrative decisions, household income and domestic consumption will be stimulated by stronger activity and employment growth in sectors affected by lockdowns in previous years and in which a significant part of domestic consumption takes place (Retail Trade, Food Services, Tourism). Similar developments will be triggered by job creation in export-oriented activities, mainly in Industry, Tourism, and Transport, as well as by more investment. These trends in consumption and investment will be milder in the baseline scenario of macroeconomic developments, due to the war uncertainty and stronger disruptions in economic activity.

As regards the impact of indirect taxation interventions, the VAT reduction applicable since June last year on specific goods and services was extended until the first half of 2022. However, as one year has passed since its implementation, no further substantial effect on prices is expected. The reduction of VAT on certain other goods and services (gyms, dance schools, etc.) will have a limited containing effect on rising prices, as it concerns a small part of consumer spending. The impact of the reduction in mobile telephony subscriber levy is expected to be slightly stronger. First, the reduction in VAT on fertilisers and animal feed from 13% to 6% and, second, the return of the excise duty on motor oil for farmers are expected to reflect in food prices in the near future.

Taking into account the above possible trends in the main components of the domestic Consumer Price Index, under the baseline scenario of macroeconomic developments for 2022, the Consumer Price Index is projected to increase by 7.0% to 7.8%. If developments under the alternative scenario take place, the increase in energy prices would be milder while the boost of domestic demand stronger, resulting in average inflation at slightly lower levels, at around 6.2% to 6.8%.

Special Study: The impact of the revised European climate policy on the Greek industry and economy

The special study examines the likely impact of the forthcoming revisions in the European Union Emission Trading System (EU-ETS) and the introduction of the Carbon Border Adjustment Mechanism in the EU (EU-CBAM) on the activity of Greek industries that are exposed to the risk of carbon leakage and more broadly on the Greek economy. The study first reviews the amendments in the EU climate policy as they result from the proposals of the “Fit for 55” policy package, with an emphasis on the changes in the carbon leakage protection framework and the introduction of the EU-CBAM. The study concludes with some recommendations for improvements in the proposed carbon leakage protection framework with the aim to safeguard the competitiveness of Greek industry and to facilitate the implementation of the necessary adjustments.

2 ECONOMIC ENVIRONMENT

2.1 Trends and Prospects of the Global Economy

A. The Global Environment

- The global economy is estimated to have recovered at a rate in the region of 5.7 - 6.0 % in 2021, as projected in the previous IOBE report on the Greek economy
- The global recovery momentum is expected to be hit by the Russian invasion of Ukraine, which has caused an economic disturbance of unspecified magnitude and duration.
- Global growth for this year is expected to be well below the 4.4% projected by the IMF in January
- Inflation reached a 32-year peak in February in the OECD countries due to strong price rises in energy, raw materials, and food.
- As long as diplomatic efforts to find a compromise are not bearing fruit and war operations continue, it remains extremely difficult to predict the full effects of the new crisis.

The global economy continued to recover in late 2021 and in early 2022, along with international trade, employment, and incomes. Although the COVID-19 pandemic was not under control, its economic impact had clearly weakened. OECD economies grew at 4.9% in the fourth quarter of 2021, after GDP growth of 4.7% in the previous quarter and a decline of 2.7% in the fourth quarter of 2020. The annual rate of change in GDP in the most developed economies (G7) stood at 4.5% in the final quarter of last year, compared with 4.2% in the previous quarter and -2.9% in the same quarter of 2020. The 20 largest OECD economies grew in the same period at a rate of 4.9%, as in the previous quarter, against a 0.4% recession in the fourth quarter of 2020. In country-wide trends, among the most developed economies, a significant quarter-on-quarter change in the annual rate of GDP in the fourth quarter of 2021 was recorded in Italy (+6.2%, from +3.9%), France

(+5.4%, from +3.5%) and the US (+5.5% vs +4.9%). Among the major Asian developing economies, China's economy grew at a rate of 4.0%, up from 4.9% a quarter earlier. India's economy recovered by 4.9% from 9.3% in the third quarter of 2021. In Latin America, the economies of Argentina and Brazil recovered by 8.4% and 1.6% respectively, from 11.5% and 4.1% in the previous quarter.

As the global recovery was expected to continue this and next year, supported by progress in halting the impact of the pandemic on human health and life and weaker than in the previous two years yet favourable fiscal and monetary conditions, a new, particularly strong crisis arose with Russia's invasion of Ukraine. It is a strong source of global uncertainty at many levels, mainly in relation to energy supply and the stability of geopolitical relations in various regions of the world, beyond Europe. Its most immediate consequences are reflected in the prices of energy products and subsequently in inflation. In February, which was slightly affected by the conflict, inflation reached a 32-year record in the 38 OECD countries (7.7%).

The Russian invasion of Ukraine is first and foremost a major humanitarian crisis affecting the lives of millions of people, in this and neighbouring countries, not excluding Russia. But it is also a global economic disturbance of unspecified size and duration. Although in terms of economic magnitudes, Russia and Ukraine have relatively little weight in the world economy, overall they produce and export a significant amount of basic food (e.g. grains), minerals and energy products. The consequences of the war in this field are already visible worldwide in commodity markets, where oil, gas, and wheat prices have skyrocketed. This development came from the imposition of sanctions by many developed countries in response to the Russian invasion on imports and exports from/to Russia, as well as on assets of government officials and businessmen. In this context, the average spot price for Brent oil stood at $118.1 per barrel in March, 80.5% higher than a year ago and 268.8% more than in March 2020, in the outbreak of the health crisis. In the same period, the price of gas per million Btu stood at $4.92 Btu, 87.6% higher than last year and 184% more than in 2020. As long as diplomatic efforts to find a compromise are unsuccessful and military operations continue, it remains extremely difficult to predict the development of these and other consequences of the new crisis.

The strong economic costs and the high uncertainty caused by the conflict in Ukraine pose new challenges for policy makers, who are already facing increased price pressures, a significant burden on public finances due to the pandemic and imbalances on the path of recovery. Many of the governments facing extremely high energy costs react by diversifying energy sources, even by using polluting sources such as lignite, and increasing efficiency wherever possible. The subject of intense controversy is the finding of well-designed fiscal interventions to support households and businesses in order to limit the negative impact on growth, without significantly burdening fiscal balances for a third year. In particular, the countries of the European Union, which are more dependent on energy imports from Russia, are oriented towards gradual energy decoupling and energy security in the medium term, by accelerating energy transition investments in cleaner forms of energy. In these directions, at the end of March, the EU agreed to supply an additional amount of liquefied natural gas from the US this year. The consequence of Russian aggression is the decision of many countries to increase defense spending. At the same time, monetary policy worldwide is trying to ensure that inflation expectations remain controlled, without jeopardising the ongoing recovery.

According to the IMF, the rate of change in global GDP in 2021 stood in the region of 5.9%, while growth of 4.4% for this year was projected in its report in January, ahead of the new crisis. Table

2.1 includes the IMF January forecast for annual changes in GDP in 2021, as well as for the years 2022 and 2023, in the global economy and in selected developed and developing countries. It should be noted that no international organisation that makes periodic forecasts has revised them after the outbreak of the war.

Table 2.1

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

Economy	2021	2022		2023	
	Estimate*	Forecast	Difference from previous forecast **	Forecast	Difference from previous forecast **
World	5.9	4.4	-0.5	3.8	0.2
USA	5.6	4.0	-1.2	2.6	0.4
Japan	1.6	3.3	0.1	1.8	0.4
Canada	4.6	4.1	-0.8	2.8	0.2
United Kingdom	7.4	4.7	-0.3	2.3	0.4
Eurozone	5.3	3.9	-0.4	2.5	0.5
Germany	2.9	3.8	-0.8	2.5	0.9
France	7.0	3.5	-0.4	1.8	0.0
Italy	6.6	3.8	-0.4	2.2	0.6
Russia	4.5	2.8	-0.1	2.1	0.1
Turkey	11.0	3.3	0.0	3.3	0.0
China	8.1	4.8	-0.8	5.2	-0.1
India	9.0	9.0	0.5	7.1	0.5
Brazil	4.7	0.3	-1.2	1.6	-0.4
World trade	9.3	6.0	-0.7	4.9	0.4

* Actual values or preliminary estimates are shown if available

** Difference in percentage points from previous IMF forecasts (World Economic Outlook, October 2021)

Source: World Economic Outlook, IMF, January 2022

The latest and expected trends in the economies of major states and associations of states in 2022 are analysed below.

Among the major developed countries, the US economy in the fourth quarter of 2021 saw an annual growth rate of 5.5% from 4.9% in the previous quarter and a 2.3% recession in the fourth quarter of 2020. Overall in 2021, the US economy is estimated to have grown at a rate of 5.6%, after shrinking by 3.4% in 2020. The acceleration in the fourth quarter is mainly due to higher investment in inventories, exports, and fixed investment in dwellings, together with stronger consumer spending. In the fourth quarter of last year, increased coronavirus cases led to restrictions and disruptions in stores in some parts of the country. State support to households and enterprises weakened as the provisions of several state programmes expired or declined. Inflation in the US economy stood at 8.5% in March last year, at its highest rate in the last 40 years. In order to control inflationary pressures, the Fed raised its base rate by 25 basis points in March and intends to adjust quicker its stance from accommodative to neutral, while, depending on economic and financial developments, it could become even more restrictive.

The euro area economy grew by 4.6% in the fourth quarter of 2021, from 4.0% growth in the previous quarter and against a contraction of 4.3% in the same quarter of 2020. In the fourth quarter of 2021 economic activity was boosted by growth in fixed capital formation (+3.5%) and public consumption (+0.5%), while household expenditure (-0.6%) and the trade balance (-4.6%) had a negative impact on growth. Throughout 2021, the euro area grew at a rate of 5.3%, following a contraction of 6.4% in 2020. Inflation rose to 7.5% in the euro area in March, a new historic record, as the war in Ukraine and sanctions imposed on Russia pushed oil and gas prices to a high level, as already shown. The ECB decided to end bond purchases in the third quarter of 2022 as part of the Pandemic Emergency Securities Markets Programme (PEPP), gradually normalising its policy over the coming months. In addition, it has planned to tighten its policy, with interest rate hikes after the end of the quantitative easing, but without specifying a particular point in time.

In the UK, GDP grew by 6.6% in the fourth quarter of last year, from an increase of 6.9% in the previous quarter and a contraction of 6.3% a year ago. For 2021 as a whole, growth stood at 7.4%, after a contraction of 9.3% in 2020.

In Japan, GDP grew by 0.4% in the fourth quarter of 2021, after an increase of 1.2% in the previous quarter and a contraction of 0.8% a year ago. For the whole of 2021, the Japanese economy is estimated to have grown 1.6% from a recession of 4.5% in 2020.

Next, the current sub-section presents recent economic trends and economic policy challenges in five developing countries and economic regions, which generate in total almost a third of global GDP.

China's economy slowed in the fourth quarter of 2021 for the third consecutive quarter, to 4.0%, from 4.9% in the previous quarter and 6.4% a year earlier. Overall for 2021, growth is estimated at 8.1%. The growth rate in the last three months of 2021 has been the slowest since the second quarter of 2020, amid adverse conditions created by the real estate market contraction, supply chain problems and new COVID-19 transmission outbursts.

India's economy grew 4.9% in the fourth quarter of last year, from 9.3% growth in the previous quarter and growth of 0.5% a year ago. It was the fifth consecutive quarter of recovery for the country, boosted by stronger consumer demand during the festive period, government support and a rapid decline in coronavirus outbreaks. For the whole of last year, growth is estimated at about 9%.

Russia's gross domestic product grew by 5.0% year-on-year in the fourth quarter of 2021, after an increase of 3.8% in the previous quarter and a decrease of 1.3% in the corresponding quarter of 2020. Overall, in 2021, the Russian economy is estimated to have grown at 4.3%, while for this year, before the war, a clear slowdown in growth was projected at 2.4%.

Turkey's economy grew by 8.4% year-on-year in the fourth quarter of 2021 from 8.1% in the previous quarter, up from 5.6% a year ago. For the whole of 2021, the Turkish economy is estimated to have grown at a rate of 11%. Annual inflation, according to official data, rose for the tenth consecutive month in March, reaching 61.1%, which is 20-year record. The exchange rate of the Turkish lira has fallen significantly (-44.7% and -39.8% relative to the dollar and the euro in 2021). However, the country's central bank reduced interest rates by 100 basis points in December to 14%.

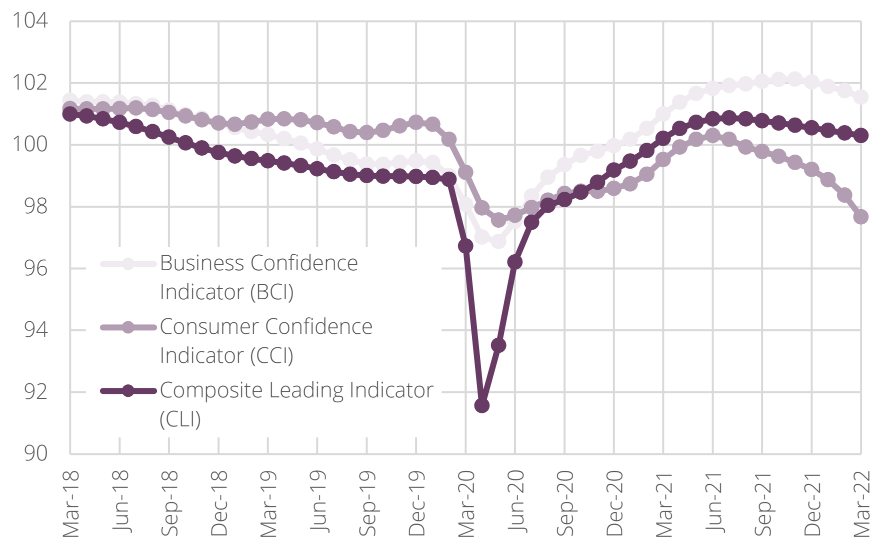
Among the Latin American countries, Brazil's economy grew 1.6% in the fourth quarter of 2021, up from 4.1% in the previous quarter and a contraction of 1.0% in the same quarter of 2020. For the whole of 2021, growth is estimated at 4.7%.

The OECD's composite leading indicator for its member countries has been on a downward trend since last September, following a 16-month hike and a three-year high in August. However, it remains above its long-term average. The OECD's business confidence indicator has been on a downward trajectory since last December, but remains above its long-term average. Consumer confidence remains weak, with the index declining for the ninth consecutive month in March.

World trade volumes are estimated to have increased by 9.3% in 2021 despite supply chain disruptions and the continuing trade slump in services.

Figure 2.1

Economic sentiment indicators and the Composite Leading Indicator for the OECD countries (seasonally adjusted data, long-term average = 100)



A significant deterioration in the consumer confidence indicator, while the business confidence indicator and the leading indicator of global economic activity decline

Source: OECD

B. The Economies of the EU and the Euro area

- Russia's invasion of Ukraine and the economic impact of energy sanctions on inflation and growth are the most important policy challenges in the EU
- Possible need for additional fiscal and monetary measures at collective level, in addition to those taken to counter the consequences of the war
- Managing the COVID-19 pandemic remains a challenge, especially in tackling variants
- Positive GDP rate of change in the EU and the euro area in the fourth quarter of 2021, at 4.7% and 4.6% respectively
- Decline of the Economic Sentiment Indicator in both zones in the first quarter
- Marginally negative contribution of net exports to growth in October - December in the euro area and the European Union
- Euro area and EU growth forecasts of 5.3% in 2021 and 4.0% next year (February 2021)
- The implementation of the European recovery fund (NextGenerationEU) continues and the extension of flexibility in securities markets is under consideration if such a need arises.

With the start of the war in Ukraine in February 2022, a new socio-economic crisis has begun in Europe, with the humanitarian aspect dominating due to the displacement of millions of people from their homes and the impact on people's lives, especially in neighbouring countries. However, there are also many significant economic consequences. For Europe, this is mainly related to the energy dependence on Russia. Before the outbreak of the war, a tendency to return to normality had begun to be felt in Europe, with the lifting of various restrictive measures in many countries and various regulatory interventions pending withdrawal.

The 2020-2021 pandemic had a strong impact on demand, supply chains, labour supply, industrial production, prices, trade, and capital flows. The impact of the health crisis was also influenced by the fact that the European economy at the time was relatively vulnerable to shocks, as it had already slowed significantly in 2019, mainly due to some structural problems in its industrial sectors. Higher food and energy prices, supply constraints linked to the pandemic, and the recovery in demand had led to inflation picking up.

Regarding the consequences of the war, Russia and Ukraine are important producers and exporters of certain basic foods, minerals, and energy products. Especially in terms of gas, 40% of Western Europe's consumption comes from Russia. Combined with past rigidities due to restrictive measures to tackle the pandemic, Europe is heading to a new economic, perhaps even food crisis, especially in commodity markets with gas, oil, and grain prices reaching very high levels. The final economic effects will depend on both the outcome of the war and the emergence of COVID variants.

To mitigate the impact of the health crisis, the European Commission has implemented since its beginning monetary and budgetary interventions. The most important of these are the European recovery fund (NextGenerationEU), with a budget of €1.85 billion, and the reinforced EU budget for 2021-2027, at close to €1.05 trillion. Recent developments in the ECB's monetary policy actions are presented at the end of the current sub-section of the report.

In particular, as regards the economic developments in the fourth quarter of 2021 in the European Union and the euro area, growth accelerated to 4.7% and 4.6% respectively, compared with a recession of 4.0% in the EU and 4.2% in the EA respectively a year earlier. According to the European Commission's recent forecast report, published a few days before the war,[1] after a recession of 6.4% in 2020, growth in the euro area is estimated to have stood at 5.3% for 2021, while for 2022 a recovery of 4.0% is projected, with similar figures reported for the European Union.

Growth in the economies of the European Union in October-December 2021 was driven by stronger domestic demand, with the contribution of investment equal to 1.9% of GDP, roughly the same as in the previous quarter (1.8%). The contribution of consumption increased to 2.9%, compared with a lower contribution of 1.8% of GDP in the fourth quarter of 2021. The effect of net exports on GDP change in the fourth quarter of 2021 was negative, at -0.6%, from zero in the previous quarter. Similar trends were recorded in the composition of growth in the euro area economies, with domestic demand as the major growth driver (5.0 p.p. from 1.6 p.p. in the third quarter last year). There was also a positive quarter-on-quarter contribution from investment (2.8% of GDP), more intensive than in the previous quarter (1.5% of GDP), while consumption also had a positive contribution, at 2.8 p.p. from a lower impact in the third quarter of 1.5 percentage points.

[1] European Economic Forecasts Winter 2022, European Commission, February 2022

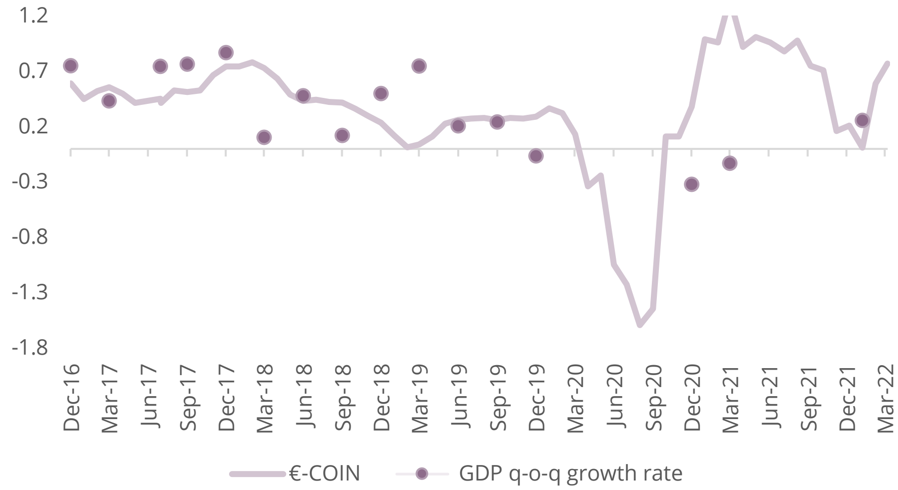
In addition, in that quarter, the contribution of net exports to the euro area was negative, at -0.4%, against a positive contribution of 0.4% a quarter earlier.

The composition of GDP components on the expenditure side remains similar in the EU-27 and the euro area, with consumption representing 74.1% and 74.2% of GDP respectively, investment accounting for 22.8% and 22.4% of GDP, exports 53.4% and 51.9%, and imports 50.4% and 48.6% of GDP.

Growth among EU countries in the fourth quarter of last year was largest in Slovenia (annual changes in seasonally adjusted data), at a rate of 10.5%. It was followed by Ireland (10.0%), Malta (9.9%), and Croatia (9.9%). The countries with the lowest growth were Slovakia (1.2%), Latvia (2.7%), and Czechia (3.6%). With a rolling 12-month average, Greece showed a positive growth rate of 8.2%, well above the average rate in both the EU and the EA (5.5% and 5.6% respectively). The country with the lowest growth, on a 12-month basis, was Slovakia (3.2%), followed by the Czech Republic (3.4%). By contrast, the country with the largest positive 12-month rolling rate in the EU was Ireland (13.5%) followed by Croatia (10.4%) and Malta (9.6%).

Figure 2.2

Monthly €-COIN Index & Eurozone GDP*



A small increase in the €-COIN index in the fourth quarter to 0.46 points, from 0.36 a quarter earlier and 1.10 a year 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 climate and key economic activity leading indicators in the euro area and the European Union, the €-COIN index increased in the first quarter of 2022 to 0.46 points, from 0.36 points in the previous quarter, while it is well below the first quarter of the previous year (1.10). The monthly performance of March 2022 at 0.77 points is weaker than last March's 1.36, indicating a slowdown in GDP growth.

The European Commission's Economic Sentiment Indicator for the EU-27 and the euro area fell quarter on quarter in January-March this year by 4.2 and 4.0 points respectively, while for the same period last year it increased by 15.9 and 16.4 points respectively. Specifically, the index stood at 110.6 and 111.7 points. In March this year, the economic sentiment indicator fell to 107.5 points in the EU-27 and to 108.5 points in the euro area, to a lower level than in the previous month. By contrast, it was 7.6 points higher than one year ago in both EU-27 and EA.

Table 2.2

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

Month	Apr-20	May-20	June-20	Jul-20	Aug -20	Sep -20	Oct -20	Nov -20	Dec -20	Jan - 21	Feb -21	Mar - 21
EU-27 (2020)	67.1	69.4	77.2	83.7	88.4	91.5	91.7	88.6	91.6	91.1	93.1	99.9
Euro area	67.8	70.2	78.1	84.2	89.1	92.3	92.5	89.3	92.4	91.5	93.4	100.9

Month	Apr-21	May -21	June -21	Jul - 21	Aug - 21	Sep - 21	Oct - 21	Nov -21	Dec - 21	Jan - 22	Feb - 22	Mar - 22
EU-27 (2020)	108.8	112.8	115.8	116.6	115.3	115.3	116.2	115.2	113	111.6	112.8	107.5
Euro area	109.4	113.4	116.7	117.6	116.3	116.4	117.2	116.2	113.8	112.7	113.9	108.5

Source: European Commission (DG ECFIN), March 2022

Among the largest EU economies, in France in the first quarter of this year, the index fell quarter on quarter (-4.3 points), while compared to the first quarter of 2021, the index was 17.3 points higher. A decrease quarter on quarter was observed in Germany by 2.3 points, while the index was 14.2 points higher year on year. In Italy, the index decreased by 7.0 points quarter on quarter and increased by 15.6 points year on year. Finally, in January — March 2022, Greece's Economic Sentiment Indicator increased by 2.1 points quarter on quarter, to 113.8 points, which is about 20.6 points higher than a year earlier (93.2 points).

More complete information on trends in the GDP components and other macroeconomic variables in the euro area and the EU in the fourth quarter of 2021 is provided next in this sub-section. The forecasts for 2021-2022 for the EU and the euro area are presented, as reported in the latest forecast of the European Commission.

In detail, according to Eurostat data for the fourth quarter of 2021 (annual changes in seasonally adjusted data), private consumption in the European Union increased by 5.6%, when in the previous quarter it had increased by 3.4%, while in the same period of 2020 its trend was strongly negative (-7.0%). In the euro area, household consumption increased by 5.4%, from a lower increase of 2.9% in the previous quarter, while a year earlier it had decreased by 7.5%. The European Commission predicted last November household consumption to grow in the EU as a whole by 3.5%, accelerating in 2022 to 5.5%. For the euro area, it predicted an increase in private consumption by 3.2% last year and an expansion of 5.5% this year (Table 2.3). At country level, private consumption in Germany was 2.4% higher in the fourth quarter, while the previous quarter saw an increase of 1.4%, while France saw a much higher increase (7.4%). In Italy, it grew by 7.1%, from a smaller increase of 4.3% a quarter earlier, while in Spain it grew by 4.1% when the increase in the previous quarter was 1.8%. In Greece, private consumption rose 9.7%, from an increase in the previous quarter of 10.8%, while in the same period of 2020 it had fallen by 7.1%.

Table 2.3

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

	EU			Eurozone		
	2020	2021	2022	2020	2021	2022
GDP*	-5.9	5.3	4.0	-6.4	5.3	4.0
Private Consumption	-7.3	3.5	5.5	-7.9	3.2	5.5
Public Consumption	1.3	3.4	0.8	1.3	3.6	0.9
Gross Investment	-6.3	5.5	4.8	-7	5.2	4.4
Exports of Goods and Services	-8.5	9.7	7.2	-9.1	9.7	7.3
Imports of Goods and Services	-8.3	8.6	7.1	-9.1	8.2	7.2
Employment	-1.4	0.8	1.0	-1.5	0.8	1.0
Unemployment (% labour force)	7.1	7.1	6.7	7.9	7.9	7.5
Inflation*	0.7	2.9	3.9	0.3	2.6	3.5
Balance of General Government (% GDP)	-6.9	-6.6	-3.6	-7.2	-7.1	-3.9
Debt of General Government (% GDP)	91.8	92.1	90	99.3	100.0	97.9
Current Account Balance (% GDP)	2.7	3	3	2.6	3.1	3.2

Source: *European Economic Forecasts, Winter 2022, European Commission, February 2022
European Economic Forecasts, Autumn 2021, European Commission, November 2021

Public consumption increased in the EU and euro area in the last quarter of 2021 by 2.3% and 2.5% respectively, from 2.5% and 2.6% a quarter earlier. In the same quarter of 2020, public consumption had increased by 2.8% in the EU and 3.0% in the euro area. For 2021, the European Commission expected in November public consumption growth in the EU to increase compared to 2020, primarily due to measures to address the impact of the health crisis, to 3.4% from 1.3%. A similar expansion was estimated for the euro area (3.6%). This year growth will shrink to 0.8% and 0.9% in the EU and EA respectively.

Investment increased in October-December 2021 in the EU by 8.5%, similar to the previous quarter. Similarly in the euro area, the rise was 7.5%, compared with a 7.2% increase in the third quarter last year. In the same quarter of 2020, investment had contracted by 11.0% in the EU and 12.3% in the euro area. The European Commission forecast an increase of 5.5% for 2021 and 4.8% for 2022 in the EU, while expecting an increase of 5.2% and 4.4% respectively in the euro area. In the fourth quarter of 2021, investment increased by 5.3% in Germany after a 9.6% increase in the previous quarter, while Italy recorded a sharp increase of 16.1% from a milder 11.2% increase July-September 2021. Investment growth in France was at 4.7%, from a major increase of 6.9% in the previous quarter.

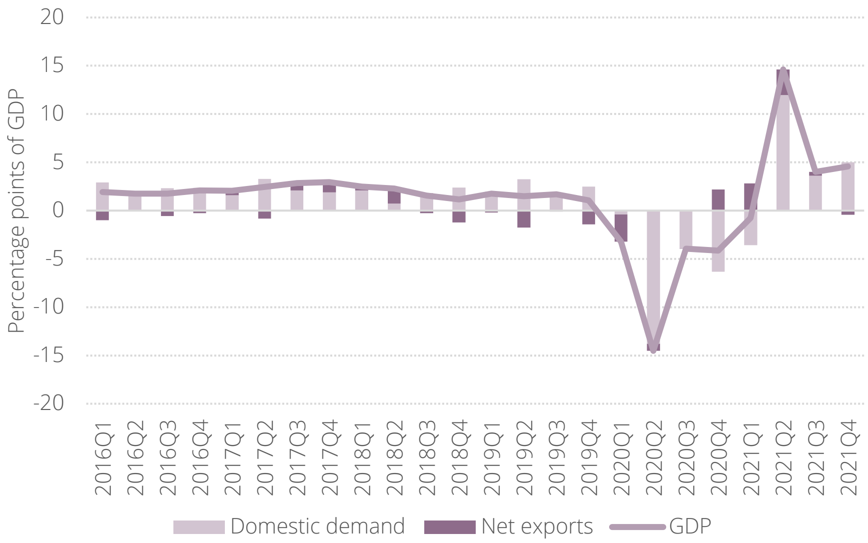
A significant increase was recorded in the exports of goods and services in the EU (8.4%), and in the euro area (9.0%), compared with a similar increase of 9.9% and 10.6% respectively in the previous quarter and a contraction of 3.7% and 4.7% in the fourth quarter of 2020. For 2021, the European Commission predicted an increase in exports in the EU-27 by 9.7% and an increase in the following year by 7.2%. For the euro area, it expected an expansion of 9.7% for the whole of 2021 and an increase in 2022 by 7.3%. At the country level, Germany saw export growth in the fourth quarter of 2021 by 7.9%, from a similar increase of 7.7% in the third quarter of last year. The increase in exports in France in the final quarter of last year was 7.9%, against a growth of 8.9% a quarter ago. Italy saw an 8.4% increase, from a 10.3% increase a quarter earlier. Strong export expansion was recorded in Spain, by 17.9%, after a similar rise of 16.1% in the third quarter, as in Cyprus (15.2%), following an increase of 40.1% in the third quarter of 2021.

Imports growth in the EU was strong in the fourth quarter of 2021, at 10.2% from a positive change of 10.7% a quarter earlier. A similar change was observed in the EA, by 10.7%, from a 10.6% increase in the third quarter of 2021. A year earlier, imports had declined by 7.5% and 9.3% respectively. For the years 2021 and 2022, the European Commission has forecast an increase of 8.6% and 7.1% for the EU respectively. For the euro area, it expected a rise of 8.2% in 2021 and growth of 7.2% in 2022. At country level, in the fourth quarter of 2021 imports increased to Spain by 13.1%, compared with a similar rise of 13.2% in the previous quarter. In France, imports expanded by 8.7%, against 5.5% a quarter earlier, while Italy saw an increase of 12.9% against a 14.4% increase. A positive pace was recorded in Germany (12.0%), up from 9.5% in the third quarter.

Figure 2.3

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

Small negative contribution of net exports to euro area GDP change in Q4 2021. Positive impact of domestic demand due to higher private consumption year on year.



Source: Eurostat

Based on developments in GDP components in the euro area, the contribution of net exports was marginally negative (0.4%) from same rate, but positive in the previous quarter (0.4%). The negative contribution of net exports in the fourth quarter came from a simultaneous slight increase in the contribution of exports, from 4.6% in the third quarter to 4.9%, combined with a stronger negative effect of imports, from 3.6% in the third quarter to 5.0% in the next quarter. As already mentioned, the contribution of domestic demand reached 5.0% of GDP, from a positive impact of 3.6 percentage points in the previous quarter. The largest increase in the contribution came mainly from private consumption, which acted positively by 2.8% of GDP in the fourth quarter of 2021, while in the third quarter its positive contribution stood at 1.5 percentage points.

Harmonised inflation rose in the fourth quarter of 2021 in the EU and the euro area, reaching 4.9% and 4.6%, from 3.1% and 2.8% respectively a quarter earlier. In the fourth quarter of 2020, harmonised inflation had stood at 0.2% in the EU and -0.3% in the EA respectively. Overall, for 2021, the European Commission recently predicted (February 2021) that inflation will rise in the EA to 2.6%, but also in the EU to 2.9%, with 3.5% and 3.9% respectively projected for this year.

Employment increased in the fourth quarter of 2021 by 2.1% in the EU and 2.2% in the EA, from 2.1% in both zones a quarter before, while in the same period of 2020 jobs had increased, by 1.5% and 1.7% respectively. The European Commission projected an increase in jobs in the EU for 2021 and 2022 by 0.8% and 1.0% respectively. For the euro area, it also predicted employment growth in the past year, by 0.8%, and an increase (1.0%) in 2022, from a decline of 1.5% in 2020. Employment growth in the fourth quarter of 2021 was recorded in Ireland (8.4%), Denmark (4.5%), Greece (3.6%) and Croatia (3.6%). By contrast, employment contracted in Romania (9.1%), and Latvia (1.9%).

Unemployment in the third quarter of 2021 fell to 6.7% in the EU and 7.4% in the euro area, from 7.2% and 7.9% respectively in the second quarter. In the third quarter of the previous year, it had stood at 7.6% in the EU and 8.5% in the EA. For 2021, the European Commission estimated unchanged unemployment rates in the EU-27 and euro area compared to the previous year, at 7.1% and 7.9%, while for 2022 it projected unemployment rates of 6.7% and 7.5%. Between July and September 2021 the highest unemployment rate was recorded in Spain (14.6%), with Greece (13.0%) and Italy (8.8%) coming next, while in France unemployment stood at 7.9%.

In the area of fiscal performance, the general government deficit in the EU-27 in the third quarter of 2021 was 3.3% of GDP, compared to 5.2% in the second quarter of 2021. The European Commission has projected the budget deficit to be at 6.6% and 3.6% of GDP in 2021 and 2022 respectively. The euro area budget deficit is expected on average to reach 7.1% of GDP in 2021 and 3.9% in 2022, from 7.2% in the previous year. Public debt stood at 97.7% of GDP in the third quarter of last year. It is estimated that on average in 2021 it rose to 100.0% and this year it will decrease to 97.9% of GDP respectively. Of course, these estimates had been made long before the war in Ukraine, which has created new needs for budgetary intervention. Government debt, as a percentage of GDP, declined in the third quarter of 2021 in many member countries, with its highest level in Greece (200.7%), Italy (155.3%), Portugal (130.5%), Spain (121.8%) and France (116.0%).

Regarding the monetary policy framework, the invasion of Ukraine is a new, major turning point for Europe. The ECB intends to ensure smooth liquidity conditions and implement the sanctions decided by the European Union and the European governments. In line with its communication of 10 March 2022,[2] all necessary measures will be taken to maintain price stability and safeguard financial stability. Based on its updated assessment and taking into account the uncertain

[2] ECB, Press release "Monetary policy decisions", 10 March 2022

environment, the ECB revised the timeline of the purchases it will carry out through the Asset Purchase Programme (APP) in the coming months. Net purchases under the APP will reach €40 billion per month in April, €30 billion in May and €20 billion in June, lower than in its previous decision (€40 billion monthly in the second quarter of 2022). The net purchases in the third quarter will depend on current developments and medium-term inflation expectations. In the first quarter of 2022, the ECB carried out net asset purchases under the Pandemic Emergency Purchase Programme (PEPP) at a significantly lower pace than in the previous quarter. In addition, at the end of this period, it completed the net purchases of assets under the PEPP. Overall, over the duration of the PEPP, the ECB made purchases of €1.72 trillion, which is slightly below the planned total market intervention envelope of €1.85 trillion. The ECB intends to reinvest the amounts of capital from the repayment of securities acquired under the PEPP upon maturity at least until the end of 2024.

Under conditions of pressure, flexibility will continue to be an element of monetary policy, according to the same press release. In the case of new pandemic-related market fragmentation, PEPP reinvestments can at any time be flexibly adjusted in terms of time, asset classes, and countries. Flexibility could include the purchase of bonds issued by Greece in addition to the value of the bonds reinvested at maturity, in order to avoid market disruption, negatively affecting the transmission of monetary policy to the Greek economy, while it continues to recover from the effects of the pandemic. More broadly, the net purchases under the PEPP could be re-launched, if necessary, to address negative pandemic-related shocks.

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

- Russia's invasion of Ukraine and the economic impact of sanctions on growth and inflation. Russia and Ukraine are large producers and exporters of certain basic foodstuffs (e.g. grains), minerals and energy products. The war has already led to strong turmoil in the relevant markets, with oil, gas and wheat prices reaching their highest level in years.
- Notable effects of the pandemic and the war on global supply chains. Unprecedentedly for the EU economy, demand growth is not covered by sufficient supply in various sectors, in particular in the production of durable and investment goods.
- Sharp increase in consumer inflation and further indications of price pressures in different parts of the production chain
- Possible need for additional fiscal and monetary measures at collective level, in addition to those taken to counter the consequences of the war
- Risk of food crisis in some countries due to severe export interventions
- Managing the COVID-19 pandemic remains a global challenge mainly in tackling variants

2.2 The Economic Environment in Greece

A. Economic Sentiment

- Mild reinforcement of the Economic Sentiment Indicator in Greece in the first quarter of 2022 compared with the previous quarter (113.8 from 112.0 points). A stronger improvement compared to the same quarter last year (93.2 points). The recent level is the second highest since 2000 (118.2).
- Business expectations declined in the recent quarter compared to the previous one in Services and Retail Trade, recovered in Industry and remained unchanged in Construction.
- The Consumer Confidence Index remained in January - March almost unchanged from the level of the final quarter of 2021, at -42.8 (from -42.9) points. At the same time, it is slightly higher than a year earlier (-43.0 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.[3]

In the first quarter of this year, the Economic Sentiment Indicator increased mildly compared to the previous quarter (+1.8 points). As a result of this gain, the indicator remained at pre-COVID levels, close to its highest level of the last 21 years. At the same time, the Consumer Confidence indicator was essentially unchanged from the previous quarter, at -42.8 points. The new gain was mainly driven by an improvement in expectations in Industry, with expectations in Construction unchanged. The Services and Retail Trade sectors were hit at the beginning of 2022 by the new outbreak of the pandemic and related restrictive measures, as well as by increasing pressures on disposable income due to a sharp escalation in inflation. The industrial sector continued to benefit mainly from a significant recovery in the world economy and international trade, although affected by rising prices in energy and other raw materials, as well as difficulties in the functioning of international supply chains. These trends are further reinforced by the war in Ukraine and are expected to become more noticeable in the coming months, depending on the evolution of the war. The strong escalation of inflationary pressures has exacerbated concerns, mainly on the household side, about the evolution of their real incomes. This development is part of the broader uncertainty about how their economic situation will develop within the new crisis due to the war in Ukraine, as the scope for direct support measures is limited. Geopolitical and economic developments due to the war are expected to be the main factor in shaping the conditions in the Greek and the global economy in the next period. Policy responses at the level of international organisations and central banks will also be a crucial factor for economies, with some of the

[3] 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.

governments having already made relevant interventions, which are primarily aimed at easing the high energy costs.

In detail, the Economic Sentiment Indicator in Greece in October-December slightly strengthened compared to the previous quarter (Q4 2021), to 113.8 from 112.0 points, while it fluctuated at a level significantly higher than the average of last year (93.2 points). Its recent level is the second highest on record, behind only the 2000 average (118.2 points).

In Europe, the corresponding average indicator was significantly lower quarter on quarter, both in the EU and in the euro area. In particular, the Economic Sentiment Indicator stood at 110.6 (from 116.2) points in the first quarter of this year in the EU, and 111.7 (from 117.2) points in the euro area.

At sector level, business expectations in Greece strengthened in Industry and were unchanged in Construction, while they deteriorated in Services and Retail Trade. In particular, expectations improved slightly in Industry, while, by contrast, they declined notably in Retail Trade and even stronger in Services. On the consumer side, the consumer confidence index was unchanged from the previous quarter. Compared to the same quarter last year, the average indicators improved sharply in all sectors, particularly in Construction and Services. In more detail:

The Consumer Confidence index in Greece in January-March this year stood marginally higher on average since the fourth quarter of 2021, at -42.8 points from -42.9 points, marginally higher than last year (-43.0 points). The corresponding average index declined markedly in the EU to -13.3 (from -8.0) points, as well as in the euro area (-12.0 from -6.6 points). These levels are higher year on year (-14.8 and -13.7 points, respectively).

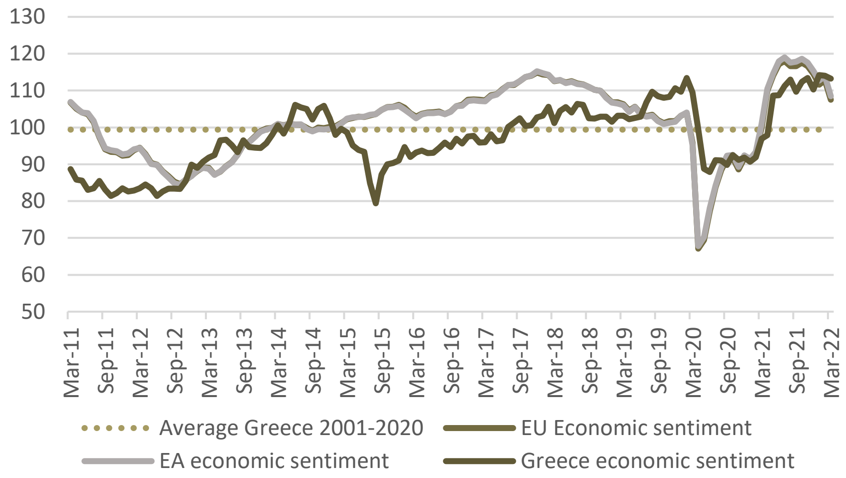
Trends in the individual items that make up the overall indicator were mainly negative quarter on quarter in the first quarter of 2022. Thus, the negative forecasts of consumers in Greece for the financial situation of their households over the next 12 months, as well as those for the country's economic situation, significantly strengthened. At the same time, households' assessment of their current situation deteriorated sharply, while the intention for major purchases in the near future declined marginally.

More specifically, the percentage of those who are pessimistic about the financial situation of their household in the next 12 months increased significantly, to 56% (from 51% in the previous quarter), while the percentage of those who held optimistic expectations remained at 6%. At the same time, the share of consumers in Greece making pessimistic forecasts about the country's economic situation increased to 64% (from 61%), with 13% (from 15%) expecting an improvement. As for the intention to save, the share of households that do not assess savings as likely over the next 12 months increased to 83% (from 81%), while the percentage of those who consider it likely remained at 17%. In the unemployment expectations, the share of those expecting deterioration decreased slightly to 54% (from 56%), with 19% (from 15%) on average expressing the opposite view. The share of consumers reporting to be "running into debt" in the first quarter of 2022 increased mildly, to 8% (from 5%), to the same level as in the same quarter of 2021. The percentage of respondents who say they save little also marginally increased to 20% (from 19% in the previous quarter and 24% in the corresponding quarter of 2021). Finally, the share of those who say that they are "just making ends meet" declined to 60% (from 65% in the previous quarter), while the percentage of households reporting that they were "drawing from their savings" stood at 11%, with the corresponding figure for 2021 standing at 8%.

The business confidence indicator in Industry in the first quarter of 2022 stood at 116.9 (from 110.7 in the fourth quarter of 2021), significantly higher than the corresponding performance in 2021 (98.2 points). In the key activity data, the indicator for short-term output expectations increased significantly from +19.5 points in the fourth quarter of 2021 to +31.7 points on average in the first quarter of 2022. By contrast, the mildly positive assessment for the level of orders and demand weakened slightly (to +5.2 from +8.4 points). The assessment for stocks of finished products weakened notably (to -2.2 from +6.6 points), while the trends in export variables are mixed: the export expectations for the following quarter strengthened significantly (+41.5 from +31.6 points), while, by contrast, the assessment for current exports of the sector (+ 28.4 against + 30.9 points), as well as for foreign orders and demand (+ 3.2 against +6.5 points), slightly decreased. The average quarterly balance of employment expectations declined marginally to +10.6 (from +10.9) points on average. The utilisation rate of plant capacity declined to 74.8% (from 77.4%), while the months of secured production of enterprises increased mildly, to 4.9 (from 4.6) months on average.

Figure 2.4

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



The Economic Sentiment Indicator in the first quarter of 2022 mildly strengthened quarter on quarter. It remained close to its highest level in 21 years, having returned to pre-crisis levels.

Source: European Commission, DG ECFIN

The confidence indicator in Retail Trade was significantly lower quarter on quarter, at 98.8 points (from 110.7), yet it was much higher than in the same quarter last year (90.2 points). Among the main components of the indicator, the average balance for the assessment of current sales declined sharply to -3 (from +19) points. Of the companies in the sector, 36% reported their sales lower, with 33% (from 51%) reporting higher sales. In terms of anticipated sales, the index dropped sharply from +30 to just +6 points, with stocks de-escalating significantly (from -12 from -5 points). Of the remaining activity data, the balance of expectations for orders to suppliers was strongly down at +6 points (from +30 points), while at the same time, the average balance of sector employment expectations deteriorated, but remained positive, at +24 (from +37) points. Finally, in terms of prices, the corresponding balance was virtually unchanged (+59 from +60 points), with only 2% of the companies expressing expectations of price decline and 61% (from 60%) predicting the opposite. A deterioration in business expectations was recorded in the first quarter of 2022 in all individual retail sectors except for department stores, where they slightly strengthened.

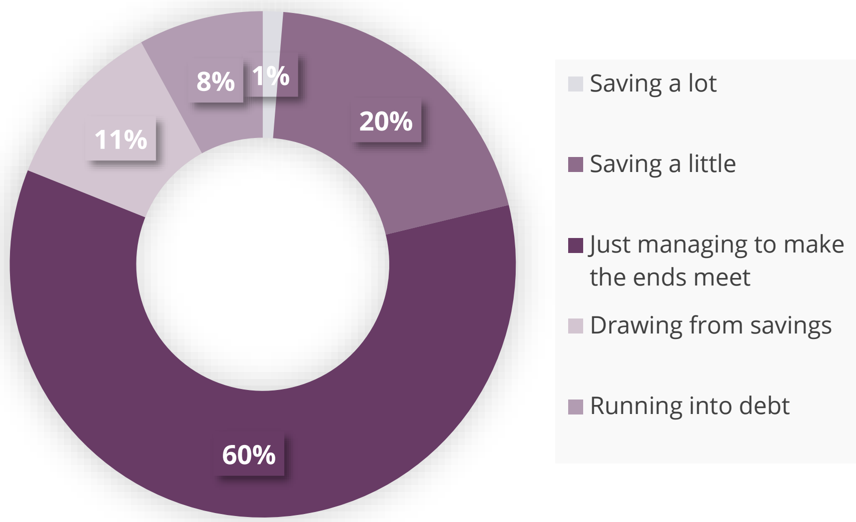
Business expectations in Construction remained unchanged in the first quarter of 2022, with the relative balance again standing at 137.2 points on average, which was the largest among the main sectors of activity, after Industry. This performance is at a significantly higher level than in the corresponding quarter of 2021 (only 106.2). In the key variables, the sector's employment expectations strengthened slightly, with the relative balance changing from +23 points to +25 points, and 39% of the enterprises expecting more jobs when 13% (from 19%) were expecting a decline. The negative expectations for work orders deteriorated (to -32 from -29), while estimates of the current level of work weakened significantly (at +4 from +22 points).

The operating time ensured by current backlog in the sector weakened slightly to 9.4 months while the balance in price expectations rose sharply to +26 (from +11) points, with only 15% (from 30%) of the enterprises expecting decline in the short term and 41% further increase. Finally, the percentage of enterprises that reported no factors currently limiting their building activity remained at 15%, while among the rest, 34% indicated as major impediments to their operation low demand, 17% (from 18%) insufficient financing, and 20% factors such as the general economic situation of the country, capital controls, high taxation, lack of projects, delays in payments by the state, etc. At the sectoral level, business expectations slightly improved both in Private Construction and in Public Works.

Figure 2.5

Consumer survey data on the financial situation of households (January - March 2022)

The share of respondents stating that they were just making ends meet declined compared to the fourth quarter of 2021 (60%). Small boost in the percentage of those reporting that they were running into debt.



Source: IOBE

The Business Confidence Indicator in Services in the quarter under review was significantly lower than in the previous quarter, at 115.7 points (from 125.4). However, this performance was much higher than in the corresponding quarter of 2021 (70.9 points), when many of the Services sectors were suspended. Of the key variables, the evolution of demand over the past 3 months declined sharply, with the relative index losing 16 points on average and reaching +29 points. The indicator on business situation development over the past 3 months fell sharply (+32 from +54 on average), with the balance in the expectations of enterprises in the sector for demand over the next three months slightly rising (+43 from +40 points). Among the rest of the activity data, the balance of employment expectations of the respondents mildly weakened, down by 3 points to +23 points, while in prices the average expectations balance increased markedly to +27 (from +20) units. Finally, the percentage of respondents reporting smooth business operations decreased marginally to 22% on average (from 23%) with 19% declaring as the main obstacle to their operation insufficient demand, 6% (from 10%) shortfall of working capital, and 32% (out of 29%) other factors linked to the general economic situation, energy prices, the war in Ukraine, etc. Of the services sectors under review, the sub-indices declined markedly in the first quarter of 2022 in all sectors, with the exception of the IT sector where there was some improvement.

Table 2.4

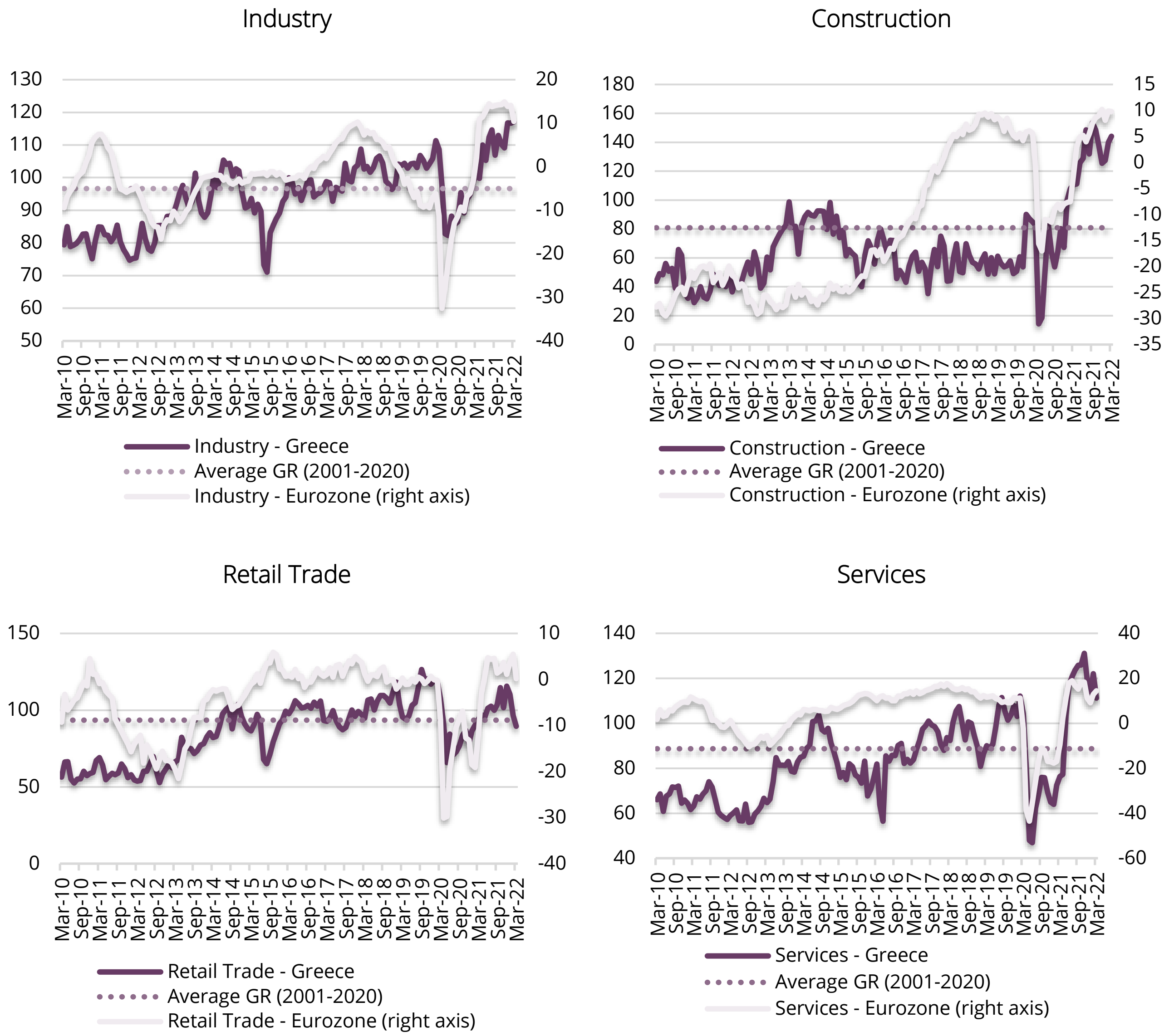
Economic Sentiment Indicators

Time Period	Economic Sentiment Indicator			Business Expectations Index **(Greece)**				Consumer Confidence Index (Greece)
	EU-27	Eurozone	Greece		EU-27	Eurozone	Greece	
2010	99.3	99.1	86.3	79.9	52.2	61.3	68.1	-56.9
2011	99.8	99.9	84.8	81.1	37.7	60.9	66.1	-70.5
2012	88.0	88.1	83.7	81.4	47.5	59.1	58.8	-73.9
2013	90.8	90.8	93.6	92.6	71.5	72.6	75.3	-69.3
2014	99.6	99.4	102.0	99.7	88.4	92.3	93.3	-52.8
2015	102.9	102.9	91.7	86.3	62.0	83.9	78.2	-50.3
2016	104.2	104.0	94.4	96.1	61.3	101.4	79.3	-62.9
2017	110.4	110.4	98.9	98.1	55.4	94.6	92.7	-58.9
2018	111.5	111.5	103.8	102.8	58.1	104.5	97.0	-44.0
Q1 2019	106.6	106.4	102.6	101.8	56.7	105.8	85.7	-31.1
Q2 2019	104.7	104.4	102.6	103.8	54.8	97.8	92.6	-29.4
Q3 2019	102.8	102.6	108.3	104.8	52.7	115.5	108.2	-11.7
Q4 2019	101.5	101.2	109.0	104.1	68.1	119.1	104.4	-7.1
Q1 2020	101.0	100.8	110.9	108.6	84.9	115.1	106.5	-10.4
Q2 2020	71.4	72.2	92.1	87.6	28.1	80.3	58.6	-31.1
Q3 2020	87.9	88.6	90.6	86.7	67.0	73.5	68.8	-36.9
Q4 2020	90.7	91.4	91.8	92.6	70.7	83.0	70.0	-46.2
Q1 2021	94.7	95.3	93.2	98.2	106.2	90.2	70.9	-43.0
Q2 2021	113.7	114.3	105.1	105.0	121.9	97.9	99.3	-27.5
Q3 2021	117.1	118.1	111.3	111.3	144.7	102.0	123.4	-35.4
Q4 2021	116.2	117.2	112.0	110.7	137.2	110.7	125.4	-42.9
Q1 2022	110.6	111.7	113.8	116.9	137.2	98.8	115.7	-42.8

Sources: European Commission, DG ECFIN, IOBE

Figure 2.6

Business Confidence Indicators



Source: IOBE

Business expectations improved in the first quarter of 2022 quarter on quarter in Industry, remained unchanged in Construction, and deteriorated in Services and Retail Trade.

B. Fiscal Developments and Outlook

- State Budget balance 2021: A deficit of €14,872 million (8.4% of GDP) against a deficit target of €17,487 million last year in the 2022 Budget Explanatory Statement and a deficit of €22,806 million in 2020 (13.8% of GDP).
- Primary balance 2021: A deficit of €10,327 million (5.8% of GDP), against a primary deficit target of €12,946 million and a primary deficit of €18,195 million in 2020 (11.0% of GDP).
- About 85.7% of the State budget deficit comes from the Ordinary Budget and 14.3% from the PIP. A significant improvement in the balance of the PIP compared to last year.
- State Budget Balance, Jan-Feb. 2022: a deficit of €910 million against a deficit target of €2,044 million and a deficit of €3,268 million in the corresponding period of 2021.
- Primary balance of the State Budget, Jan-Feb. 2022: a surplus of €840 million against a primary deficit target of €239 million and a primary deficit of €1,497 million for the same period in 2021. An extensive reduction in both revenue (-49.0%) and PIP+RRF expenditure (-20.8%).

Final State Budget 2021 execution

The unprecedented, for several decades, health emergency has led the European Commission to activate the general escape clause of the Stability and Growth Pact. The consequence of this action was the relaxation of the European fiscal rules for the years 2020 and 2021. In 2021, the clause was extended to 2022.

The implementation of the Budget in 2021 was mostly determined, for a second year, by the evolution of the COVID-19 pandemic and its effects. The strong public health protection measures implemented since the beginning of the pandemic, as well as the corresponding support interventions, were maintained in the first quarter of 2021. Their gradual lifting began in early April last year in the Retail sector, mainly thanks to progress in vaccination. It was extended to Food Services in early May and to the provision of accommodation services from mid-May. As a result of the gradual lifting, the vast majority of support measures were in force for the first half of last year, with a corresponding high budgetary impact. According to government estimates, the budget of interventions to address the impact of the pandemic has already reached €15.9 billion since early June. In the 2021 Budgetary Report, their budget was €4.54 billion, while another €3 billion was made available for the same purpose as non-allocated expenditure.

The removal of almost all operating restrictions by the beginning of the third quarter allowed most support measures to expire. At the same time, the satisfactory pace of vaccinations globally, which eased the coronavirus fears, combined with the earlier than last year opening of international tourism in Greece, led to a strong increase in tourism flows, higher than expected in early 2021. According to data from the Bank of Greece, international arrivals over the whole of last year were more than twice as high as last year (+105.9 %). However, they did not exceed 45% of the 2019 level. As a result, international travel receipts were 165.8% higher than last year, but 42.1% lower than in 2019.[4] These developments in tourism are considered to have favoured, in addition to economic activity, tax revenues, primarily from indirect taxes.

Although the epidemiological conditions began to deteriorate since the beginning of the fourth quarter, mainly in terms of the number of cases, the measures to protect public health were not reinstated. For this reason, there was no need for measures to support businesses and households, which would further increase the relevant public expenditure, as it had occurred in November-December 2020. However, measures were needed to support those affected by natural disasters, amounting to €500 million, as well as against energy price increases of €523 million.

At the same time, the tourism industry continued to operate. The Bank of Greece's data show that in the October-December quarter international arrivals to the country were 37.4% lower than in 2019,[5] while in the third quarter the shortfall was wider (-45.2%). In addition, tourism revenue in the last quarter of last year was 168.8% higher than a year earlier and just 15.9% lower than in 2019. Therefore, the tourist season was extended last year, which probably also had a positive effect on tax revenues.

The new coronavirus variant (Omicron) spread rapidly domestically in the last fortnight of 2021. Relevant restrictive measures on economic activity were announced on 27/12. Unlike outbreaks of the pandemic in the past, far fewer activities (Food Services, Recreation) were affected due to the mild characteristics of COVID due to the Omicron variant. In addition, the restrictions were accompanied by business support measures which were finalised at the beginning of this year (furlough of employment contracts, special purpose compensation, suspension of instalments of restructured loans, special aid programme depending on turnover contraction).

Balance and primary balance of the 2021 State Budget

According to the state budget execution data, on a modified cash basis, for 2021, a deficit of €14,872 million (8.4% of GDP) was recorded in the state budget balance, against a deficit target of €17,487 million for last year in the 2022 budget explanatory statement and a deficit of €22,806 million in 2020 (13.8% of GDP). Out of this 85.7% comes from the OB and the remaining 14.3% from the PIP. The primary balance was in a deficit of €10,327 million (5.8% of GDP), against a primary deficit target of €12,946 million and a primary deficit of €18,195 million in 2020 (11.0% of GDP).

Both deficits in the two components of the State Budget are lower compared to 2020: From €17,700 million in 2020 to €12,750 million in 2021 for the OB and from €5,105 million in 2020 to €2,122 million last year in the PIP. The improvement in the State Budget balance is due to the fact that while expenditure was essentially stable between the two years (€70,168 million in 2020, €69,750 million in 2021), revenue increased by 13.7% (€47,364 million in 2020, €54.878 million last year). In particular, inflows from the Recovery and Resilience Fund contributed to the improvement on the revenue side, while on the expenditure side the PIP expenditure was down compared to last year. GDP growth of 7.4% also helped to improve the fiscal performance of the previous year compared to 2020 (Table 2.5).

[4] Bank of Greece, Travel Services Data
[5] Bank of Greece, Travel Services Data

Table 2.5

Revenue, expenditure and balance of the State Budget (million €)

	2020	2021	% Change 21/20	2021 Budget	2022* Budget	% Change 21B/20
I. SB NET REVENUE (1+2)	47,364	54,878	15.9	46,454	55,425	19.3
1. Net OB revenue	41,822	47,999	14.8	40,988	47,736	16.5
OB revenue before tax refunds	*47,494*	*53,102*	*11.8*	*46,348*	52,693	*13.9*
Less Tax refunds	5,672	5,103	-10.0	5,360	*4,957*	-7.5
2. PIP revenue +RRF[6]	5,542	6,879	24.1	5,466	7,689	40.7
of which: revenue from EU	3,991	4,593	15.1	4,486	3,800	*-15.3*
II. SB EXPENDITURE (3+4)	*70,169*	69,750	-0.6	70,774	65,594	*-7.3*
3. OB expenditure	59,522	60,749	2.1	60,353	54,595	-9.5
Primary expenditure OB	54,748	55,876	2.1	55,658	49,045	-11.9
Interest	4,774	4,873	2.1	4,695	5,550	18.2
4. PIP expenditure + RRF[7]	10,647	9,001	-15.5	10,421	10,999	5.5
III. SB Deficit (-)/Surplus (+) (I-II)	*-22,806*	*-14,872*		*-24,319*	-10,170	
% of GDP	*-13.8*	*-8.4*		*-14.1*	-5.4	
OB Deficit (-)/Surplus (1-3)	*-17,700*	*-12,750*		*-19,365*	-6,859	
Deficit (-)/Surplus PIP (2-4)	*-5,105*	*-2,122*		*-4,955*	-3310	
IV. SB Primary Balance	-18,195	-10,327		-19,624	-4,620	
% of GDP	-11.0	-5.8		-11.4	2.5	
GDP (at current prices)	165,326	177,608	7.4	171,934	187,278	

* Estimates from the Explanatory Statement of the 2022 Budget

Sources: Monthly SB Execution Bulletin December 2021, Ministry of Finance, January 2022 and Explanatory Statement of the 2021 Budget, November 2020.

Ordinary Budget Revenue

The amount of net revenue of the State Budget amounted to €54,878 million, up by €1,458 million or 2.7% compared to the estimate in the explanatory statement of the 2022 Budget and an increase of 15.9% compared to the previous year. The excess over the target is mainly due to: (a) higher tax revenue, despite the fact that due to the extension of the deadline for the payment of road taxes until the end of February 2022, an amount of approximately €300 million planned to be collected in 2021 will be collected in 2022 and (b) the collection in December of an amount of €644 million relating to revenue from ANFA's, which was not foreseen for 2021 in the 2022 Budget explanatory statement.

The total revenue of the State Budget (before tax refunds) reached €59,981 million, higher by €1,901 million or 3.3% against the target and 13.1% more than last year.

Tax revenue amounted to €48,126 million, higher by €1,266 million or 2.7% compared to the target in the 2022 Budget explanatory statement. However, taking into account the postponed road tax collection, the real increase in tax revenue is even greater. OB revenue increased by 11.8% compared to last year, and tax refunds decreased by 10%, contributing to the expansion of OB net revenue by 14.8%. All revenue subcategories increased compared to 2020, except for asset sales,

[6] The PIP category now includes the flows of the Recovery and Resilience Fund for 2021 and 2022
[7] As above

most likely due to stronger economic activity. A significant increase was observed in corporate tax revenues (+42.9%) and other current taxes (+40.7%). The strong rise in corporate tax revenues is partly due to certified amounts from the 2020 income tax returns and reflects that the decline in corporate profits due to the pandemic was weaker than originally estimated. A significant part of the rise in other current revenue came from higher dividend income from state-owned enterprises and from the domestic part of the PIP. There was a strong increase in customs duties and import taxes (+24.5%), transfers (+32.9%), and sales of goods and services, which increased from €507 million to €611 million (+20.5% - Table 2.6).

Table 2.6

State Budget Revenue (million €)

	2020	2021	% change 21/20	2021 Budget	2022* Budget	% change 22B/21
Net SB revenue	47,364	54,878	15.9	46,454	55,425	19.3
Net OB revenue	41,822	47,999	14.8	40,988	47,736	16.5
OB revenue	*47,494*	*53,102*	*11.8*	*46,348*	52,693	*13.9*
Tax refunds	5,672	5,103	-10.0	5,360	*4,957*	-7.5
Income tax. of which:	13,589	14,697	8.2	12,923	15,348	18.8
--Personal	10,155	10,173	0.2	9,788	*10,352*	*5.8*
--Corporate	*2,361*	3,374	42.9	2,074	*3,794*	*82.9*
Property tax	2,427	2,652	9.3	2,496	2,503	0.3
Taxes on donations, inheritance etc.	180	198	0.1	175	170	-2.9
Tariffs	245	305	24.5	240	297	23.8
Taxes on goods and services, of which:	23,945	26,736	11.7	23,478	28,491	21.4
--VAT	*15,008*	*17,431*	*16.1*	*14,505*	*18,755*	*29.3*
--Excise duties	*6,427*	*6,659*	*3.6*	*6,463*	*7,067*	*9.3*
Other production taxes	1,069	1,086	1.6	1,110	1,034	-6.8
Other current taxes	1,743	2,452	40.7	2,359	2,213	-6.2
Social security contributions	54	55	1.9	54	55	1.9
Transfers, of which:	6,537	8,690	32.9	8,690	7,567	-12.9
--ANFA's and SMP's	-1,643	-910	44.6	999	0	-100.0
Sales of goods and services, of which*:*	507	611	20.5	547	665	21.6
Other current revenue	*2,731*	*2,495*	*-8.6*	*2,663*	2,027	*-23.9*
Sales of fixed assets	8	4	-50.0	25	13	-48.0
PIP Revenue +RRF[8]	5,542	6,879	24.1	5,466	7,689	40.7

* Estimates from the Explanatory Statement of the 2022 Budget

Sources: Monthly SB Execution Bulletin December 2021, Ministry of Finance, January 2022 and Explanatory Statement of the 2021 Budget, November 2020.

Ordinary Budget Expenditure

The expenditure of the State Budget for 2021 reached €69,750 million, lower by €1,177 million or 1.6% against the target (€70,907 million) in the explanatory statement of the 2022 budget, and lower by €419 million or 0.6% compared to last year (€70,169 million., Table 2.7).

[8] The PIP category now includes the RRF flows for 2021 and 2022.

The Ordinary Budget is lagging behind the target by €1,208 million or 1.9%, which is mainly due to lower other grants by €781 million. The difference is mainly the result of cautious expectations in response to the pandemic in 2021. Compared to 2020, OB expenditure increased by 2.1%. Payments on the investment expenditure side totalled €9,001 million, higher than the €8,950 million target by €51 million or 0.6%.

Table 2.7

State Budget Expenditure (million €)

	2020*	2021*	% change 21/20	2021 Budget	2022* Budget	% change 22B/21
SB Expenditure (1+2+3)	*70,169*	69,750	2.1	70,774	65,594	*-7.3*
OB Expenditure (1+2)	59,522	60,749	2.1	60,353	54,595	-9.5
1.Primary OB Expenditure	54,748	55,876	2.1	55,658	49,045	-11.9
Compensation of employees	13,335	13,494	1.2	13,415	13,599	1.4
Social benefits	137	281	105.1	241	221	-8.3
Transfers	38,751	37,038	-4.4	38,997	29,825	-23.5
(of which SSFs)	*21,625*	*21,574*	*-0.2*	*21,867*	*20,562*	*-6.0*
Purchase of goods and services	1,618	1,992	23.1	1,802	1,136	-37.0
Subsidies	248	346	39.5	102	80	-21.6
Other current expenditure	29	52	79.3	72	101	40.2
Non allocated expenditure	0	0	0.0	362	13,922	3745.9
Purchase of fixed assets	631	2,672	323.5	668	1,160	73.7
2. Interest[1] (gross basis)	4,774	4,873	2.1	4,695	5,550	18.2
3. PIP Expenditure +RRF[9]	10,647	9,001	-15.5	10,421	10,999	5.5

* Estimates from the Explanatory Statement of the 2022 Budget

Sources: Monthly SB Execution Bulletin December 2021, Ministry of Finance, January 2022 and Explanatory Statement of the 2021 Budget, November 2020.

Most expenditure categories increased compared to 2020. A rather large expansion was recorded in social benefits (+105.1%), partly from higher expenditure on the heating allowance, in the purchases of fixed assets (+323.5%), as a result of higher equipment expenditure, in other expenditure (+79.3%) due to the reallocation of the State aid to enterprises in the form of a fixed expenditure subsidy and finally, in subsidies (+39.5%). Expenditure declined in transfers, from €38,751 million to €37,038 million (-4.4%) and in the PIP (-15.5%).

Public Investment Programme implementation

The PIP balance improved significantly in 2021. The PIP revenue increased from €5,542 million to €6,879 million (+24.5%) while expenditure decreased from €10,647 million to €9,001 million (-15.5%). Of course, as the RRF was not yet activated in 2020, the total expenditure is not comparable between the two years. Excluding the pandemic expenditure of around €4.28 billion in 2020 and €2.9 billion in 2021, with the latter mainly in the form of repayable advances (€1.1 billion) and support to SMEs affected by COVID-19 (€741 million), the programme's pure investment component amounted to €6,118 million last year, up from €6,367 million in 2020. Therefore, the actual decrease in the PIP in the previous year was significantly weaker than that resulting from

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

expenditure including measures. In any case, due to the activation of the RRF last year, an increase in programme expenditure was expected.

Implementation of the 2022 budget (January — February)

The year 2022 began with a new outbreak of the pandemic due to the new variant (Omicron). However, due to the mild pathogenic characteristics of the variant, the imposition of restrictive measures was limited compared to the same period last year. As a result, not many interventions to support businesses and households have been reinstated. The furlough of employment contracts, the special compensation, and the suspension of payments of restructured obligations were reinstated for businesses of the Entertainment-Recreation sector. In addition, a special programme of aid depending on turnover contraction was implemented. The fact that only 1,989 workers and freelancers were furloughed in February, compared with 61.8k in January, highlights the fact that the majority of companies affected by administrative measures, restarted operation, albeit with restrictions, within just one month. Consequently, no significant turmoil in economic activity and public finances was caused by the new wave.

Price hikes in energy goods are the main economic problem, both domestically and internationally. Inflationary pressures from the recovery of the global economy in the second half of last year and at the beginning of 2022 escalated sharply following the Russian invasion of Ukraine and the ongoing war, due to high concern about the possible shortage of supply in certain energy products, consumer goods (e.g. sunflower oil) and raw materials (e.g. metals extracted in Russia and Ukraine). The significant deterioration of the economic climate across Europe and worldwide brought about by the war, the sanctions imposed by European countries, the US, Canada and other countries in Russia, and the large refugee wave of Ukrainian residents in Europe, have caused many economic difficulties to the global economy, which are not limited to growing prices.

To halt the energy price increases, the government has domestically launched a series of support interventions, starting a retrospective subsidy of electricity consumption for the period September-December. The subsidy was extended from January to gas consumption. Since April, the amount of the subsidy has increased significantly, while an exceptional electricity subsidy has been granted especially to small and medium-sized enterprises. In addition, a fuel consumption subsidy for households was introduced for April-June. The above measures mitigate the impact of the particularly high prices of energy products on household income and the liquidity of businesses, but they entail significant fiscal costs, as only for April (and until June for the fuel card), they have a budget of €766 million. Income support will also affect transfers to vulnerable social groups (low-income pensioners, people with disabilities, minimum income beneficiaries, etc.) decided at the end of March, involving expenditure of up to €324 million. The recent "package" of measures is estimated to concern approximately 1.4 million households, with more than 3.2 million members. Furthermore, the total budget of the energy interventions announced in the first four months of this year totals €1.9 billion.

Other measures recently taken to support households and businesses include a reduction of the ENFIA tax and support of the primary sector. Their total budget is €550 million. The burden on the budget balance from all the measures mentioned above is significant. The majority of these are expected to continue as long as energy costs remain at a high level, which will depend primarily on the duration of the war. Further measures may also be taken.

The strong uncertainty about the evolution of the war has further effects, not allowing consumers, businesses and the State to make short and medium-term decisions. This puts additional pressure on economic activity and therefore on the State budget, on the revenue side.

State Budget Balance and Primary Balance

According to the state budget execution data, on a modified cash basis, for January — February 2022, there was a deficit of €910 million in the state budget balance, against a deficit target of €2,044 million for this period in the explanatory statement of the 2022 budget and a deficit of €3,268 million in the corresponding period of 2021. The primary balance was in a surplus of €840 million, against a primary deficit target of €239 million and a primary deficit of €1,497 million in the same period in 2021. The improvement in the OB balance compared to last year is mainly due to a decrease in expenditure (-17.3% - Table 2.8).

Table 2.8

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

	Jan. – February		% Change 22/21	2021*	2022* Budget	% Change 22E/21
	2021*	2022*				
I. SB NET REVENUE (1+2)	8.533	8.853	3,8	54.878	57.101	4,1
1. Net OB revenue	7.696	8.426	9,5	47.999	47.736	-0,5
OB revenue before tax refunds	*8.298*	*9.068*	*9,3*	*53.102*	55.172	*3,9*
Less Tax refunds	602	642	6,6	5.103	*4.957*	-2,9
2. PIP revenue +RRF[10]	837	427	-49,0	6.879	7.436	8,1
of which: revenue from EU	-	-	-	4.593	3.800	*-17,3*
II. SB EXPENDITURE (3+4)	*11.801*	*9.763*	-17,3	69.750	67.929	*-2,6*
3. OB expenditure	10.117	8.429	-16,7	60.749	54.595	-10,1
Primary expenditure OB	8.194	6.673	-18,6	55.876	49.995	-10,5
Interest	1.923	1.756	-8,7	4.873	4.600	-5,6
4. PIP expenditure + RRF[11]	1.684	1.334	-20,8	9.001	10.999	22,2
III. SB Deficit (-)/Surplus (+)	*-3.268*	*-910*		*-14.872*	-10.827	
% of GDP	*-1,8*	*-0,5*		*-8,4*	-5,8	
IV. SB Primary Balance	-1.497	840		-10.327	--6.257	
% of GDP	-0,8	-0,4		-5,8	-3,3	
GDP (at current prices)	177.608	187.278	5,4	177.608	187.278	5,4

Sources: Monthly SB Execution Bulletin February 2022, Ministry of Finance, March 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 totalled €8.853 million, lagging by €1,090 million or 11% compared to the relevant estimate for the corresponding period included in the explanatory statement of the 2022 Budget and down by 3.8% compared to the same period of 2021. However, the target of the explanatory statement included the disbursement in February of the first tranche from the Recovery and Resilience Facility (RRF) of €1,718 million, which, following a positive preliminary assessment by the European Commission, was finally carried out in early April.

[10] The PIP category now includes the flows of the Recovery and Resilience Fund for 2021 and 2022
[11] As above

Excluding the RRF amount, net revenue exceeded the target by €628 million or 6.3%. The total revenue of the State Budget amounted to €9,495 million, lower by €1.131 million or 10.6% than the target. Excluding the RRF amount, total revenues exceeded the target by €587 million.

Revenue in the tax category reached €4,872 million, exceeding the relevant target by €1,106 million or 29.3%. In addition to better tax performance as analysed below, this result came from: (a) extension of the deadline for payment of road taxes until the end of February and (b) extension until the beginning of February of the payment deadline for tax obligations due on 31 January in the areas hit by heavy snowfall and frost on 24 January. The increase of €1,082.27 million in total tax revenue in January — February this year, compared with the same period last year, is mainly due to an increase in taxes on goods and services (+23.2%) and higher income tax payments (+17.0%) and secondarily to stronger receipts of taxes and duties on imports (+68.3%), other taxes on production (+11.3 %), and capital taxes (+16.0%).

Table 2.9

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

	Jan. – February		% Change 22/21	2021*	2022* Budget	% Change 22E/21
	2021*	2022*				
Net SB revenue	8,533	8,853	3.8	54,878	57,101	4.1
Net OB revenue	7,696	8,426	9.5	47,999	47,736	-0.5
Tax refunds	*8,298*	*9,068*	*9.3*	*53,102*	55,172	*3.9*
OB revenue	602	642	6.6	5,103	*4,957*	-2.9
Income tax, of which:	2,277	2,663	17.0	14,697	15,683	6.7
--Personal	1,640	1,801	9.8	10,173	*10,410*	*2.3*
--Corporate	*477*	*642*	34.6	3,374	*4,076*	*20.8*
Property tax	425	417	-1.9	2,652	2,631	-0.8
Taxes on donations, inheritance etc.	31	36	16.1	198	170	-14.1
Tariffs	41	69	68.3	305	297	-2.6
Taxes on goods and services, of which:	3,931	4,842	23.2	26,736	28,462	6.5
--VAT	*2,759*	*3,493*	*26.6*	*17,431*	*18,735*	*7.5*
--Excise duties	*868*	*989*	*13.9*	*6,659*	*7,065*	*6.1*
Other production taxes	80	89	11.3	1,086	991	-8.7
Other current taxes	839	589	-29.8	2,452	2,209	-9.9
Social contributions	9	9	0.0	55	55	0.0
Transfers	832	380	-54.3	8,690	7,377	-15.1
Sales of goods and services, of which*:*	84	112	33.3	611	2,104	244.4
Other current revenue	*584*	*285*	*-51.2*	*2,495*	2,067	*-17.2*
Sales of fixed assets	2	4	100.0	4	13	225
PIP Revenue +RRF[12]	837	427	-49.0	6,879	7,436	8.1

Sources: Monthly SB Execution Bulletin February 2022, Ministry of Finance, March 2022.

*On a modified cash basis. According to the new revenue classification in force since 01/01/2019.

Especially as regards the increase in revenue in taxes on goods and services, which are the category of taxes with the highest contribution to tax revenues (55.61% in January — February this year), it

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

is related to the increased level of economic activity compared with the corresponding period last year, brought about by the easing of restrictive measures against the health crisis. In addition, global inflationary effects also have an impact on revenue in this category. These came from, inter alia, the energy crisis, supply chain disruptions, and shortages of raw materials. VAT revenues on mineral oils and their derivatives are affected by the significant increase in the price of crude oil and petroleum products internationally, which is expected to become much more noticeable in the coming months, when these prices are much higher due to the war in Ukraine.

The proceeds in the category of transfers amounted to €370 million, lower by €1,565 million compared to the target included in the 2022 Budget explanatory statement, due to the delay of the expected first instalment from the RRF, as mentioned above. Of the collected amount of €370 million, €359 million relates to PIP revenue, which is higher than the target by €148 million.

Compared to a year ago, revenue increased in most categories. There was a decrease primarily in other current taxes (-29.8%), transfers (-54.3%), and other current revenue (-51.2%).

Ordinary Budget Expenditure

The expenditure of the State Budget for the period January-February 2022 amounted to €9,763 million, lower by €2,185 million compared to the target in the explanatory statement of the 2022 Budget. Compared to the corresponding period of 2021, the expenditure of the SB for the period January-February of this year is lower by €2,038 million (-16.7%). The absence of strong restrictive measures, accompanied by corresponding, extensive interventions to support households and businesses, had an important role in this development.

Table 2.10

State Budget Expenditure* (million €)

	January- February		% change 22/21	2021*	2022* Budget	% change 22E/21
	2021*	2022*				
SB Expenditure (1+2+3)	*11,801*	*9,763*	-16.7	69,750	67,929	*-2.6*
OB Expenditure (1+2)	10,117	8,429	-18.6	60,749	54,595	-10.1
1.Primary OB Expenditure	8,194	6,673	-8.7	55,876	49,995	-10.5
Compensation of employees	2,177	2,225	2.2	13,494	13,610	0.9
Social benefits	55	64	16.4	281	221	-21.4
Transfers	5,262	4,182	-20.5	37,038	30,583	-17.4
(of which SSFs)	*2,951*	*3,033*	*2.8*	*21,574*	*20,441*	*-5.3*
Purchase of goods and services	32	124	287.5	1,992	1,355	-32.0
Subsidies	0	0	0.0	346	80	-76.9
Other current expenditure	8	1	-87.5	52	101	94.2
Non allocated expenditure	0	0	0.0	0	2,923	-
Purchase of fixed assets	660	77	-88.3	2,672	3,456	29.3
2. Interest (gross basis)	1,923	1,756	-8.7	4,873	4,600	-5.6
3. PIP Expenditure +RRF[13]	1,684	1,334	-20.8	9,001	10,999	22.2

Sources: Monthly SB Execution Bulletin February 2022, Ministry of Finance, March 2022.

*On a modified cash basis. According to the new revenue classification in force since 01/01/2019.

The Ordinary Budget expenditure is lagging behind the target by €2,580 million, which is mainly due to the postponement of the payments of the armament programmes by €1,537 million.

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

Compared to last year, there is a significant decrease in OB expenditure (-18.6%), with a decrease in primary expenditure by 8.7%. Current transfers to EU agencies and states are also lagging behind the target, by €194 million, and so are guarantee calls, by €103 million. Transfers fell by 20.5% compared to last year.

The provisional performance of the main payments of the anti-pandemic measures for the period January-February is as follows: (a) support for small and micro-enterprises affected by COVID-19 in the regions of €148 million from the PIP, b) State's contribution to the repayment of business loans from affected borrowers of €47 million from the PIP and c) working capital subsidy to tourism enterprises of €42 million from the PIP.

Public Investment Programme (PIP)

Revenues of the Public Investment Programme (PIP) amounted to €427 million, 49% less than last year. As last year, in the first two months there was no payment from the RRF. The first tranche for 2022 intended for this period was finally disbursed in April. Payments on the investment expenditure side amounted to €1,333 million, exceeding the target of €938 million by €395 million. Overall, the expenditure of the PIP and the RRF appears to be reduced compared to last year by 20.8%. However, if the anti-pandemic measures covered through it, amounting to €237 million and €1,012 million respectively, are excluded from the PIP for this and last year, the trend is completely reversed and is strongly positive, +63.1%.

C. Financial developments

- Non-performing loans (NPLs) on the banks' balance sheets decreased in the fourth quarter of 2021 to 12.8% of total loans, mainly through securitisations, falling to their lowest level since June 2010.
- Credit expansion to enterprises, albeit at a moderate pace, offsets the credit contraction to households.
- The increase in private deposits halted at the beginning of 2022, after many months of expansion during the pandemic.
- The cost of new borrowing for the Greek government rose in the first quarter of 2022, to a three-year high, while the cost of new private borrowing remained low.
- Exceptional liquidity support measures by the Eurosystem are being phased out over the course of the year.
- The timely implementation of the National Recovery and Resilience Plan is an opportunity for reforms and investments, with the assistance of the banking system.

The escalation of inflation, the risk of disturbing the mild over the medium-term inflation expectations, and the gradual easing of the negative economic effects of the pandemic triggered the ongoing gradual withdrawal of exceptional liquidity support measures by the Eurosystem and domestic authorities. At the same time, the markets now expect a faster and more front-loaded rise in interest rates, starting in the second half of 2022. In the current transition period, the banking system continues to operate in very favourable liquidity conditions. The timely implementation of the National Recovery and Resilience Plan creates opportunities for stimulating credit for productive investment in the medium term. The banks are invited to play a key co-financing role for the loan arm of the Recovery Fund, amounting to €12.7 billion for Greece by 2026, while the disbursement of the first tranche, totalling €3.6 billion, took place in early April, of which €1.84 billion relates to the loan arm.

Challenges from the past for the banks include the weak quality of their assets, as reflected in the high share of NPLs and the weak quality of their statutory capital due to a high share of deferred taxation. Despite the adverse economic conditions from successive external shocks such as the pandemic and the energy crisis, on the issue of NPLs, banks made significant progress in 2021, dramatically reducing the stock of NPLs by €28.8 billion or 17.3 p.p. respectively, mainly through securitisations. However, the stock of non-performing private debt, both on and off the balance sheets of the banking system, remains high, making crucial the successful implementation of reforms in relation to the Bankruptcy Code and the out-of-court restructuring mechanism.

The gradually improving investment climate toward the domestic banks in 2021 was disrupted by the start of the war in Ukraine. After a period of high volatility, the banking index has recovered some of the losses of the two successive external shocks (health and war), with current levels being around 25% lower than in early 2020 and 10% lower than in mid-February, before the outbreak of the war in Ukraine.

Risks and uncertainty about the recovery of the real economy also affect the outlook of the financial sector. Inflationary pressures stemming from the rise in raw food prices and, above all, international energy prices, weigh heavily on transport costs and production chains. The other challenges that stand out are the geopolitical instability in eastern Europe, the ongoing health crisis, albeit with decreasing intensity, as well as the limited fiscal space in many developed economies. These risk factors hamper the speedy recovery in asset quality and the banks' short-term profitability prospects.

On the monetary policy side, the ECB concluded the net new purchases of securities under the pandemic emergency purchase programme (PEPP) in March 2022 (reinvesting maturing bonds), and announced a faster decline in net new purchases under the ongoing asset purchase programme (APP), with a view to a mid-year review and a possible discontinuation in the third quarter. In the case of Greece, which had been granted exceptional eligibility to PEPP, the ECB has announced that there is scope to continue net new purchases beyond March in order to continue the smooth monetary policy transition in all Member States. This is crucial, as it will continue to facilitate the provision of liquidity to Greek banks and stimulate demand for Greek government bonds. Purchases of government bonds under PEPP cumulatively exceeded €38.5 billion or 21.1% of GDP (2021) in the 25-month period of March 2020-March 2022, the highest in the euro area. At the same time, low-cost long-term per-financing operations for banks (e.g. LTROs, PELTROs, TLTROs) provided significant liquidity, reaching €50.8 billion in the fourth quarter of the year or 27.8% of GDP (2021), which is the third-highest among the euro area member states.

At the national level, one-off fiscal measures to support borrowers, as well as borrowers' partial relief of repayments and liquidity facilities, are being phased out by the banks. In their place, new fiscal measures to support households and businesses are emerging, aiming to cover part of the high energy costs.

Among the positive trends in bank fundamentals, the decrease in NPLs on banks' balance sheets to 12.8% of total loans in December 2021 was impressive, while the target remains a further one-digit reduction in 2022. Despite the expectation of a faster recovery in interest rates, the cost of new private sector bank financing continued to fluctuate at low levels, albeit higher than in the remaining European partners.

Among the negative trends, the credit contraction towards households continued unabated in early 2022, while it was marginally offset by credit growth to corporates. At the same time, in early 2022 there was a significant increase in the cost of new borrowing by the Greek government, as reflected in government bond yields, which in March exceeded 2.6% in the case of the 10-year bond, a three-year high. Similarly, the spread from the corresponding German bond yield widened, surpassing 230 basis points in the case of the 10-year bond. Finally, the multi-month upward trend in private deposits was halted, inter alia due to pressures on disposable income and savings in households and businesses.

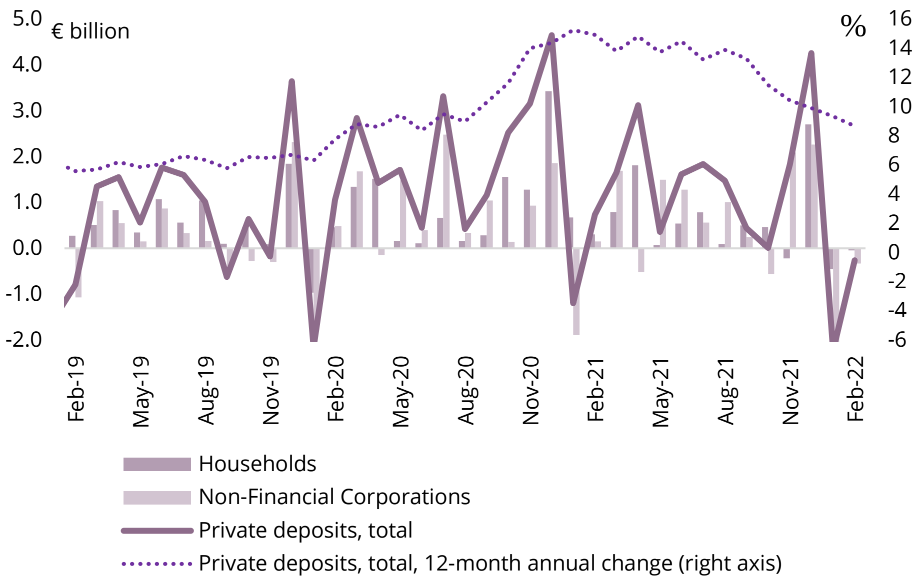
On the banks' liabilities side, private deposits fell in January-February 2022 by €2.5 billion, of which outflows of €0.5 billion came from households. The year-on-year rate of change remained high, close to 8.7%. Under protracted pandemic conditions and expansion of savings, private deposits increased cumulatively in March 2020-December 2021 by €37.8 billion, of which €19.1 billion came from households, signalling depositors' confidence in the banking system.

A mild positive trend in private deposits is expected for 2022, lower than in the previous two years. While the projected economic recovery has a positive impact on the nominal disposable income of households and corporations, it is partly offset by both inflationary pressures reducing real savings rates, and the expected increase in the propensity to consume and the relative weakening of the inclination to save.

Figure 2.7

Monthly net flow of private deposits at Greek banks

Private sector deposits contracted by €2.5 billion in Jan-Feb 2022, after months of expansion during the pandemic



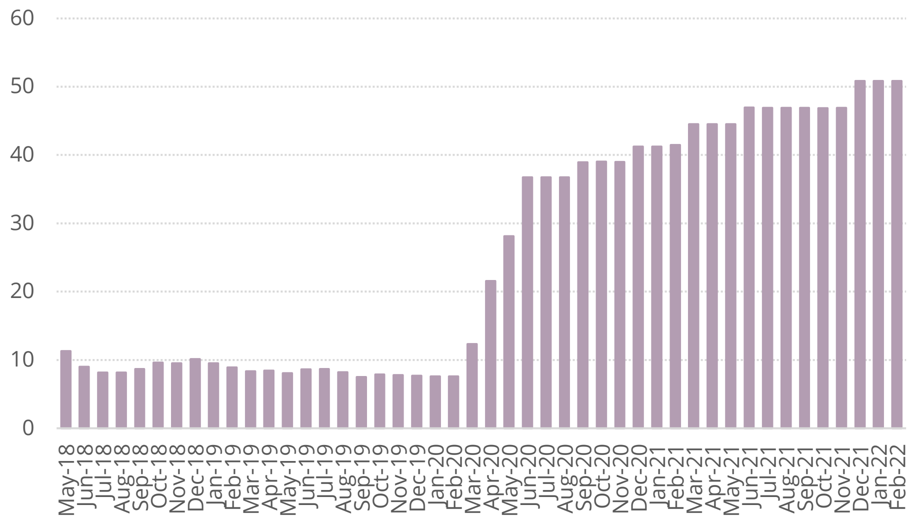
Source: Bank of Greece

Another segment of the banks' liabilities relates to Eurosystem financing. The ECB's emergency measures to strengthen the liquidity of European banks have also offered Greek banks the possibility to raise liquidity at a low cost. The Eurosystem's financing of banks during the pandemic crisis has increased since February 2020 by at least €43.2 billion, including through low-cost loans through long-term monetary policy operations (Figure 2.7). At the same time, the assets of the domestic banking system that are accepted by the Eurosystem as collateral for monetary policy operations, as reflected in the financial statements of the Bank of Greece, increased in the same period by around €45.6 billion. The third segment of the banks' liabilities concerns financing from capital markets, with significant bond issuances taking place in 2021, until the outbreak of the war in Ukraine.

On the banks' assets side, the 12-month growth rate of credit to the domestic private sector recovered to 1.1% in January-February 2022. While the pace of credit to non-financial corporations (NFCs) slowed down, it remained at around 2.8% over the same period (Figure 2.8). At the same time, credit growth to self-employed persons and sole proprietorships slowed, to a rate of close to 1%, while the credit contraction to households decreased marginally, with an annual rate of change of around 2.3%. As a result, the 12-month rate of change in net lending in the private sector as a whole, excluding write-offs, recovered in the first two months of the year, following a systematic decline over the past year (Table 2.11). The highest 12-month rate of credit expansion to NFCs at the end of 2021 was recorded in real estate activities, energy, agriculture and tourism.

Figure 2.8

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



Low-cost liquidity from the Eurosystem to Greek banks totalled €50.8 billion in early 2022.

Source: Bank of Greece

These trends in private sector financing are both driven by changes in supply and demand for loans, under the influence of the pandemic. On the supply side, the rapid reduction of NPLs and the launch of the Recovery and Resilience Plan 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 first quarter of 2022 recorded a decline in expectations of demand for new loans, with little boost expected only from short-term loans of large corporations. Credit criteria remained fixed and are not expected to change in the short term.

Table 2.11

Domestic banking finance per sector (annual % change of 12-month flows*)

Quarter/Year	1/21	2/21	3/21	4/21	Jan-22	Feb-22
Total private sector	3.4	2.3	0.9	1.1	0.9	1.4
Households & NPIs	-2.5	-2.5	-2.6	-2.4	-2.4	-2.3
Sole proprietors and unincorporated partnerships	3.2	4.2	2.4	1.8	1.1	0.9
Non-financial corporations	9.8	6.4	3.4	3.3	2.8	2.9
Agriculture	10.6	11.0	8.7	11.3		
Industry	8.2	1.9	0.1	2.2		
Trade	10.9	8.5	4.2	2.8		
Tourism	16.4	16.8	11.0	8.1		
Shipping	11.2	10.7	3.8	0.8		
Construction	-0.3	-0.2	1.2	1.3		
Electricity-gas-water supply	7.4	-1.0	1.2	5.3		
Transport and logistics	22.9	20.2	4.9	-3.3		
Interest rates on new loans (period average, %)						
Consumer credit	9.59	9.77	10.37	10.3	10.9	10.4
Mortgage credit	2.67	2.80	2.85	2.77	2.86	2.83
Loans to non-financial corporations	3.12	3.12	3.11	2.87	2.92	2.76

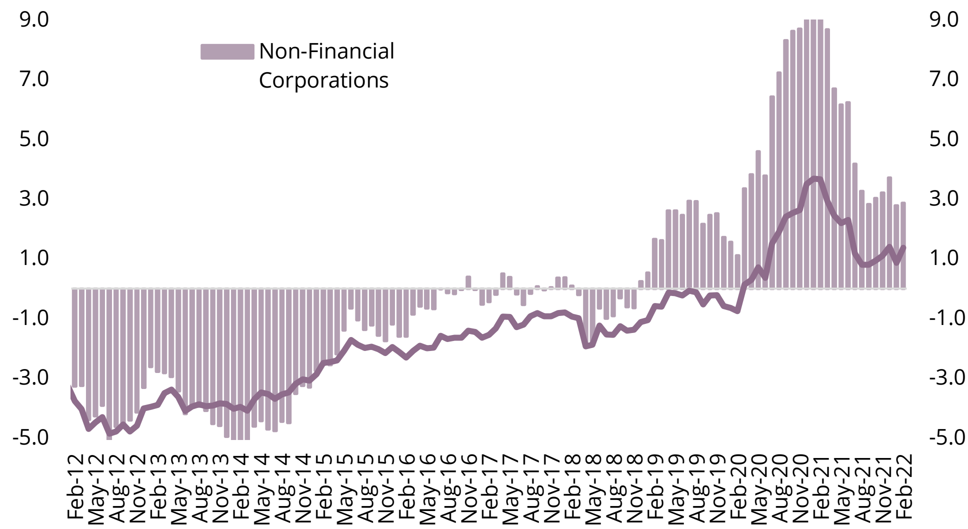
Source: Bank of Greece

* 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 2011-2021 (annual % change of flows*)

The mild credit expansion to corporations offsets 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.

Figure 2.10

Banks' government bond holdings over total assets (%)

The Greek banks' exposure to sovereign bonds declined over the past six months, yet it remains above the euro area average.

Source: ECB

During the pandemic, the role of the Greek government in absorbing resources of the domestic banking system strengthened. Regarding new bank financing, the annual growth rate of credit to the general government, which stood at 33% on a 12-month rolling base in February, from 78% in the same month last year, remained exceptionally high, albeit significantly lower than last year. On the assets side, banks reduced their exposure to sovereign debt to €25.3 billion in February 2022, or 7.8% of their total assets, from around €30.0 billion or 9.1% in mid-year. Thus, the share of total assets of Greek banks placed in sovereign bonds is slightly higher than that of the rest of the "south" of the euro area and significantly higher than the corresponding euro area average (Figure 2.10).

The non-performing loans (NPLs) declined further in the fourth quarter of 2022, by 2.2 p.p. or €2.5 billion[14], reaching €18.4 billion or 12.8% of total loans in December 2021 (Figure 2.11), a 12-year low. The decrease is mainly due to non-organic reduction transactions, i.e. loan securitisations under the Hercules II programme. The overall level of NPLs remains higher than the rest of the European countries, where it is at low single-digit rates. The NPL ratios fell in the fourth quarter of 2021 in business credit to 13.0% from 15.2% in the previous quarter, and in mortgage portfolios, from 11.8% to 10.4%. The largest decrease, from 24.8% to 19.5%, was recorded in consumer loans.

Banks have a strategic objective to reduce NPLs to a single-digit rate by 2022. During the operation of Hercules I, the non-performing loans of the four systemic banks were reduced by around €31 billion, while there is a possibility for NPL securitisations of up to €32 billion through Hercules II, which entered into force in the second quarter of 2021 with an initial duration of 18 months. While making full use of the securitisation programme, the organic reduction of NPLs, through tools such

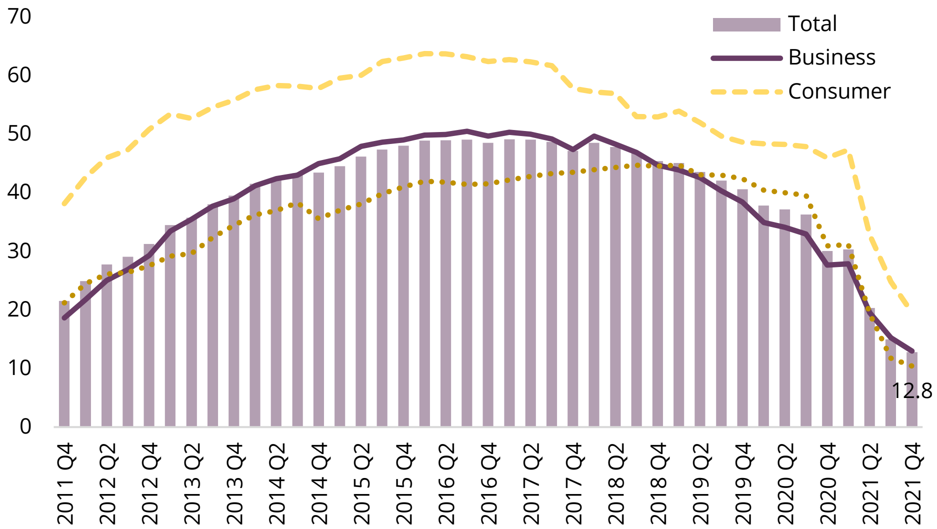
[14] The presented data for NPLs include only on-balance sheet items, on an individual basis.

as the new insolvency code, the out-of-court debt settlement mechanism, receipts from auctions and collateral liquidations should also be boosted.

Figure 2.11

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

In the fourth quarter of 2021, NPLs decreased by €2.5 billion, mainly through loan securitisations, to 12.8% of the total loan portfolio. This is the lowest rate since June 2010.



Source: Bank of Greece

* On-balance-sheet loans (before provisions) for all Greek banks on a non-consolidated level.

Over the medium term, the reduction of NPLs is expected to continue to be driven by further portfolio securitisations which carry the 'red' loans out of the banks' balance sheets. In the short term, the reduction in NPLs will be partly offset by disruptions, due to the effects of the new energy crisis affecting mainly households and businesses in energy-intensive sectors, as well as the effects of the prolonged health crisis affecting mainly companies in service sectors, as well as the effects of the phasing out of temporary measures to support borrowers (Bridge I, II and termination of payment moratoriums). The banks themselves, the European Supervisory Mechanism SSM and the Bank of Greece, consider it likely that a new "generation" of NPLs will emerge in the near future, but the estimates are still relatively low. The non-organic reduction of NPLs will continue to counteract this disruption, mainly through the sales and securitisation tools under the Greek State guarantee scheme that will remain active until October 2022 ("Hercules II").

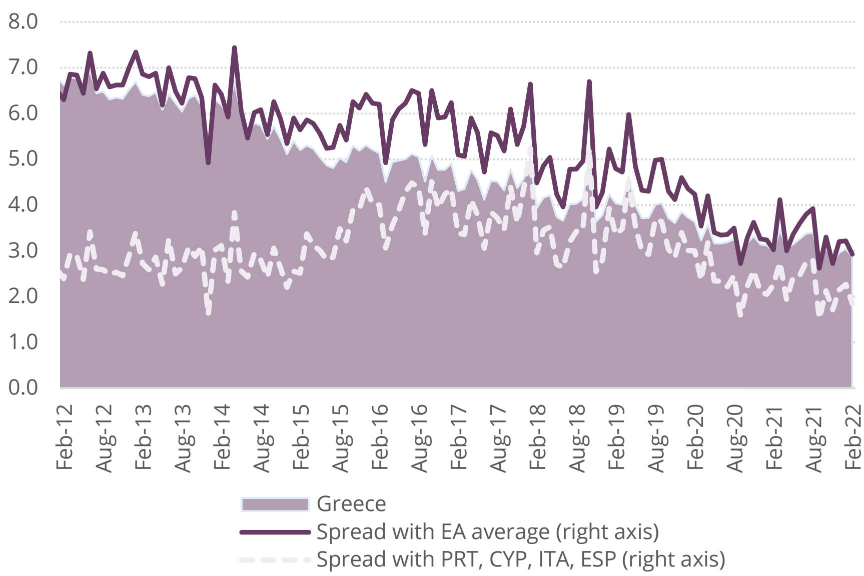
In terms of new credit, credit contraction in households is expected to continue, while inflows from the European Recovery Fund (€12.7 billion in loans in 2021-2026) and the related leverage of private investment are expected to significantly boost credit growth to businesses. The first tranche of €3.6 billion from the Recovery and Resilience Fund (of which €1.84 billion are for the debt leg) was disbursed on 8/4/2022, based on progress towards the reform targets of the domestic recovery plan in the third quarter of 2021. In relation to the debt leg of the Recovery Fund, this initially included in its design at least 30% bank financing, at least 20% own funds and up to 50% of the Fund's capital. With a view to making the financing of eligible investment projects more flexible, the Ministry of Finance decided to remove the minimum bank co-financing requirement.

Interest rates for new deposits remained exceptionally low in January-February 2022, at 0.01% and 0.05% for Non-Financial Corporations (NFCs) and households respectively, from 0.02% and 0.07% respectively in 2021 as a whole. In the same two months, the average new lending rate remained at 3.8%, unchanged since the last quarter of 2021 and 3.9% for all of 2021. It stood at around 4.9% for individuals, 5.1% for freelancers and 2.8% for NFCs. The difference in the average interest rate on loans and deposits (interest margin) remained at 3.8%, as in the last quarter and in the whole of 2021.

The average cost of new bank financing of private sector NFCs remained at the particularly low level of 2.8% in February, close to the historic minimum of 2.7% recorded at the end of 2021 (Figure 2.12). However, the cost remains higher than the rest of the Eurozone countries. Indicatively, according to the ECB's weighted bank lending cost index, the cost for non-financial corporations in February 2022 stood at 1.4% in the euro area, 1.6% in Germany, and 1.9% in the countries of the "south" of the Eurozone (Portugal, Italy, Cyprus, Spain). As a result, the spread of borrowing costs for Greek businesses compared to the average of the euro area and other "south" countries slightly widened to 146 bp. and 93 bp. respectively from 131 bp. and 76 bp. in September 2021. Compared to its pre-fiscal crisis level of 2010, the spread of borrowing costs for Greek businesses against the average of other countries in the "south" of the Eurozone remains significantly higher.

Figure 2.12

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



Interest rates for new private-sector borrowing remained low in February at 2.9%, with the spread from the average borrowing costs of the euro area's "south" countries at 93 bp.

Source: ECB

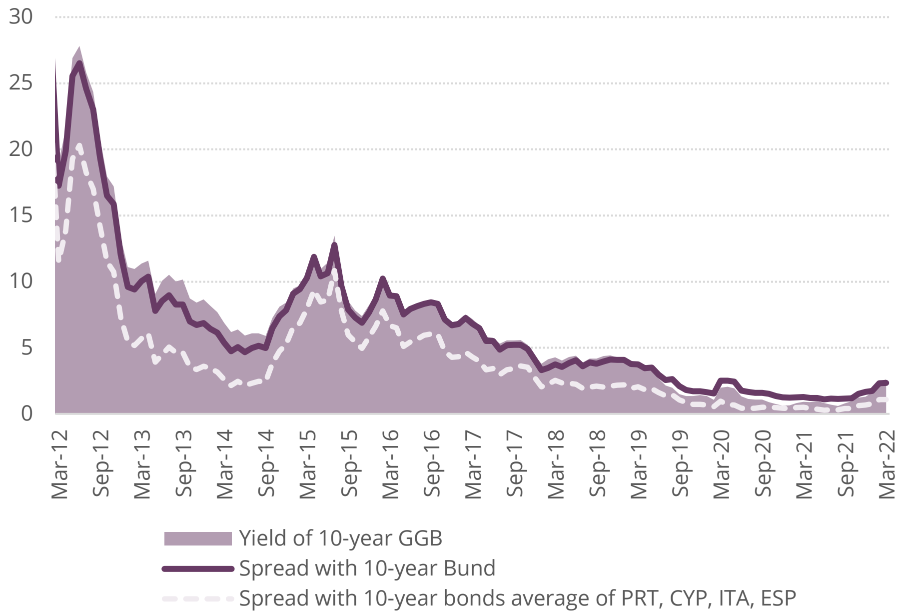
Greek government bond yields increased significantly in early 2022, under the negative impact of the new energy crisis, geopolitical instability, rising inflation and rising uncertainty about both the speed of economic recovery and the weakening of liquidity stimulus by the ECB. Thus, for the 10-year bonds the average return increased to 2.6% in February, which is a 3-year high (Figure 2.13). The surcharge on the new 10-year borrowing costs of the Greek government compared to the rest of the Eurozone countries also increased in the first quarter of this year. Thus, the spread relative to the German bond and the average of the countries of the "south" of the Eurozone reached 233 bp. and 107 bp. respectively in March, from 110 bp. and 28 bp. in mid-2021. As a result, the spreads remain significantly higher than the corresponding average rates for the first decade of the country's accession to the Eurozone (54 bp. and 2 bp. respectively).

In 2021, there were six successful long-term sovereign debt issues, raising a total of €14 billion, with very low yields (from 0% for 5-year to 1.67% for 30-year bonds). These issues were oversubscribed with particularly high demand. In terms of their quality characteristics, the vast majority of buyers were long-term institutional investors. Subsequently, the Greek State issued a new 10-year bond in January 2022, raising €3.0 billion at a coupon rate of close to 1.8%. Following the upsurge in geopolitical tensions in eastern Europe, combined with the energy crisis, there is a remarkable rise in sovereign bond yields internationally in early 2022, with slightly more pronounced yield growth for "periphery" countries such as Greece. In this context, the goal announced by the finance team to raise a further €9 billion this year from bond markets is facing challenges. The amount of Greek public debt as a percentage of GDP remains among the highest internationally. Its qualitative characteristics, such as its high average maturity and a substantial share of fixed low-interest-rate debt to international institutions, which improve its long-term sustainability perspective, act in the opposite direction.

Figure 2.13

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

The yield and spread of the 10-year government bond rose in the first quarter of 2022, to a three-year and two-year high respectively, with an average yield of 2.6% in March and a spread of 233 bp. over the corresponding German bond.



Source: ECB

3 PERFORMANCE AND OUTLOOK

3.1 Macroeconomic Developments

- The recovery of the Greek economy weakened in the fourth quarter of 2021 to 7.7% from 11.4% in the previous quarter and against a recession of 7.1% a year earlier.
- For the whole of 2021, GDP increased by 8.3%, against a recession of 9.0% in 2020.
- The recovery in the fourth quarter was mainly driven by the expansion of exports by 24.1%, mostly from the sharp rise in exports of services (+63.2%), while exports of goods continued to increase (+4.1%). The increase was stronger than the 2020 contraction (-12.5%). However, it was weaker than the increase in imports (+33.2%), mainly from higher imports of goods (+29.8%).
- The recovery is partly due to an increase in household consumption (+9.7%), which was stronger than the decline in the previous year (-7.1%). By contrast, public consumption declined slightly (-0.8%), for the first time since the third quarter of 2020, compared with a strong expansion a year ago (+5.5%).
- Investment increased by 34.3% in the fourth quarter, mainly as a result of the expansion of the fixed capital formation, by 24.1%. A year earlier investment had fallen by 7.6%, mainly from a decline in inventories.

Recent macroeconomic developments in Greece

The recovery of the Greek economy slowed in the final quarter of last year. In particular, GDP grew between October and December last year at a rate of 7.7%, from 11.4% in the previous quarter, while a year earlier it had fallen by 7.1%. Overall, GDP was 8.3% higher in the previous year compared to 2020, when it had contracted by 9.0%. Therefore, much of the recession last year, about 85% of it, was recovered. As a result, last year's GDP fell short of 2019 GDP by €2.64 billion or 1.4% of GDP. Focusing on the fourth quarter of 2021, the recovery was again driven by strong export growth, mainly in services. However, their rise was less than in imports, worsening the external balance. The expansion of household consumption came second after exports in terms of contribution to GDP growth. By contrast, public consumption spending declined. The smallest, yet significant contribution to output growth, was made by investment.

In terms of changes in GDP components over the previous year, domestic consumption increased by 6.6%, while a year earlier it had fallen by 5.2%. The boost was mainly driven by a rise in private consumption (+7.2%), which almost offset its decline in 2020 (-7.3%). Government consumption expenditure was milder compared to household consumption (+ 3.9%), but faster than last year (+2.6%). Private-sector consumption growth was strong in the final quarter of the previous year (+9.7%), for the third quarter in a row. As mentioned above, in the same period public consumption decreased (-0.8 %), for the first time since the third quarter of 2020, while in the first three quarters of last year it had a steady growth rate, in the region of 5.0-5.9 %, which was due to extraordinary expenditure in response to the pandemic, as well as support interventions for households and businesses.

Investment increased over 2021 as a whole by 9.2%, slightly less than a year earlier (+10.4%). However, unlike in 2020, the increase came exclusively from an expansion of fixed capital formation by 19.6%, following a marginal decline last year (-0.3%). Stock formation, which was the sole driver of investment growth in 2020, declined by 27.2% in 2021, mitigating the overall investment growth. Especially in the final quarter of last year, investment rose by 34.3%, which was the strongest among the four quarters. This resulted mainly from a 24.1% expansion of fixed capital formation. But stocks also expanded strongly in this period compared to a year earlier, from €639 million to €1.35 billion.

The trends last year were positive in all fixed capital categories except agricultural products, which fell slightly. The strongest growth in absolute terms was recorded in Metal Products - Machinery (+€2.05 billion or +41.1%), reflecting the impact of the supply of military aircraft, and in Housing (+€488.7 million or +26.5%). In 2020, the increase was weaker in both categories, by 4.8% and 16.2% respectively. Transport equipment (+€465.7 million or +31.9%) followed after the trend shift in vehicle sales (new passenger and light truck licences: +24.6 %, from -29.0% before), which had then led to a 30.2% decline. Investment in ICT equipment (+€363.9 million or +18.1%) is growing, following a small decline a year earlier (-0.8%). The weakest expansion was recorded in investments in Other Construction (+243.9 million or +4.8%) and Other Products (+€239 million or +6.0%) while in 2020 the former rose marginally (+0.2%) and the latter increased by 2.9%. As already mentioned, only in Agricultural Products gross capital formation declined, by €5.7 million or 7.2%. This trend comes in contrast to their rise of 36.2% last year, which was the highest at the time among the fixed capital categories.

As regards developments in the external balance of the economy, the vaccination against SARS-CoV-2 and the absence of major restrictions on international travel and business operation in the autumn were reflected in the strong annual strengthening of international tourism (+164%) and international transport in the fourth quarter and thus in the exports of services (+63.2%). However, international tourism remained significantly below its 2019 level (-37.4% in the fourth quarter). Overall in 2021, exports of services were 38.1% higher than last year, but 20.7% lower than in 2019.

Growth on the side of exports of goods continued for the sixth consecutive quarter in October-December, but at a much lower rate than in the previous two quarters (+4.1% against +9.6% and +17.0%). The growth rate of exports in the previous year averaged 9.7%, more than double that of 2020 (+4.1%). As a result, exports of goods reached a record level, both in absolute terms (€35.3 billion) and as a percentage of GDP (19.6%). Overall, exports were 21.9% higher than in 2020, with the rise coming by 73.2% from services and 26.8% from goods. That said, they were 4.3% below their 2019 level.

On the import side, growth was stronger in the final quarter of last year compared to the previous quarter, reaching 33.2% from 19.4%. Moreover, as already mentioned, it exceeded in absolute terms the increase in exports. As in exports, the increase was stronger in services side than in goods (+43.4% compared to +29.8%). Overall in 2021, imports of goods were 13.7% higher than a year ago while imports of services increased by 23.4%. The expansion of total imports in the previous year averaged 16.4%, with 64.6% coming from imports of goods and 35.4% from imports of services. In addition, total imports were 7.2% higher than in the same period of 2019. The deficit of the external balance in national accounting terms fell by 12.3% from €10.7 billion to €9.4 billion last year.

Approaching GDP on the output side, domestic gross value added increased by 7.5% last year, with its growth in the fourth quarter reaching 6.2%. Five of the ten main sectors of the Greek economy showed an expansion of their activity during this period of 2021 compared to a year ago, in four it declined, while in one it remained essentially unchanged. Overall last year activity strengthened in seven sectors and remained stable in one. The strongest increase in the October-December quarter, by 41.7%, was recorded in Arts - Recreation - Entertainment (+3.9%), which had been particularly affected a year earlier by measures to protect public health. In 2021, activity growth in the sector averaged 12.5%, partly compensating for widespread losses in 2020 (-24.5%). The second-largest boost at the end of 2021, by 22.0 %, occurred in Wholesale — Retail Trade - Transport — Storage - Hotels — Restaurants, reflecting the strong rise in international tourism and the significant rebound in consumer demand. This sector experienced the strongest increase overall in 2021 too, by 19.4%, largely balancing the contraction in activity since 2019 (-21.0%). Next came Industry, with an increase of 9.6% in the October-December quarter and an average of 10.3% last year, significantly accelerating its growth from 2.4% in 2020. In the field of Professional, Scientific — Technical — Administrative Activities, activity continued to strengthen by 3.5% in the final quarter, reaching an average of 11.7% last year (3rd highest in 2021), exceeding the decline by 6.8% a year earlier. The lowest increase was recorded in Public Administration-Defence-Compulsory Social Security, with 1.7% (Q4) and 2.9% (total 2021) respectively, compared with a decline in activity by 1.1 % in 2020. Activity in Real Estate Management was stagnant, both at the end of the previous year (+0.3%) and overall in 2021 (+0.3%), after an extensive decline in the previous year (-10.3%).

By contrast, the strongest contraction in output at the end of 2021 was recorded in Financial - Insurance Activities, by 21.4%, deepening the decline from the previous quarter (-13.4%), bringing the average decline last year to 7.9%, a sharper fall than a year earlier (-5.8%). Agriculture-Forestry-Fisheries followed in the fourth quarter, with 11.6% contraction, continuing the downward trend of the previous quarters, resulting in an average decline last year by 8.4%, continuing and strengthening the 2020 decline (4.2%). Construction saw a decline of 10.7%, in contrast to the strong growth in the previous quarters from the boost of Housing investment mentioned above and in Other constructions. Overall, the average change in activity in the Construction sector last year was clearly positive, by 10.3 %, considerably stronger than in 2020 (+2.4%). The mildest contraction took place in Information-Communication, by 2.6%, also in contrast to previous quarters. Thus, the average trend in 2021 was clearly positive (7.3 %), compared to last year's stagnation of output (+0.4%).

The positive developments in economic activity continued to reflect on the labour market, with a marked expansion of employment in the fourth quarter, by 4.5% or 174.8k, slightly less than in the previous quarter (+4.9% or +191.5k). This trend came again mainly from a decline in the number of unemployed (by 75.9% or 132.7k) and secondarily from the decline in the inactive population, as the labour force increased (by 24.1% or 42.1k). As a result, the decline in the unemployment rate compared to the same period one year earlier remained particularly strong in the October-December quarter, by 3.0 percentage points, from 3.2 in the previous quarter. So, the unemployment rate stood at 13.2%. This level is lower than in the final quarter of 2010, when the economic adjustment process started domestically. Overall, in the previous year, the number of unemployed fell from a year earlier on average by 77.3k or 10.2%, primarily due to employment expansion (+77.3k or +10.2%) and to a less degree from a contraction in the workforce (-24.8k or -0.5%). The average unemployment rate in 2021 stood at 14.7% compared to 16.3% a year earlier, when it had fallen by 2.0 percentage points compared to 2019.

At sectoral level, employment trends continue to be unrelated in some cases to those in the same sector's output. Perhaps in some cases, the mismatches are due to employment support measures, mainly last year, but also this year, which prevented fluctuations in employment. For example, Arts - Entertainment - Recreation, as well as branches of Wholesale-Retail Trade - Transport — Storage - Hotels — Restaurants, which have seen the strongest growth in economic activity, are not among those with the strongest job creation, while the highest increase was recorded in the Primary sector where output declined. That said, in Professional-Scientific Activities and Industry, the dynamics of employment are in line with output. In greater detail, most jobs compared to Q4 2020 were created in the Primary sector (+59.3k or +13.1%), Manufacturing (+47.2k or +11.6%), Accommodation-Food Services (+14.3k or +4.2%) and Human Health Activities (+13.2k or +4.6%). By contrast, the number of jobs decreased in the fourth quarter in Financial-Insurance Activities (-16.3k or -23.2%), Wholesale-Retail Trade (-3.6k or -0.5%), Energy Supply (-1.4k or -4.4%) and Arts- Entertainment-Recreation (-0.5k or -0.8%).

In the area of consumer prices, inflationary pressures escalated sharply in the fourth quarter of last year. On average between October and December, the Consumer Price Index increased by 4.5%, compared with an increase of 1.8% in the previous quarter and a decline of 2.1% in the same quarter last year. The average rate in the fourth quarter of 2020 was the highest since the second quarter of 2011. The strengthening of the inflationary trend is mainly due to higher prices of energy products. The negative impact on indirect tax prices, due to the reduction of VAT from 1/6/2020 on certain products and services, seems to have ended one year after its implementation. Among the 12 categories of products and services included in the domestic CPI, there was a price increase in seven, while in two prices remained unchanged. The largest price increase occurred in those categories affected by energy product prices.

In particular, prices increased by 15.8% in Housing and by 9.8% in Transport Services. However, these categories had the strongest decline a year ago, by 4.4% and 7.3%, so this year's trends are also due to a "base effect". There was also a strong rise in prices in Food-Non-Alcoholic Beverages, by 3.6%, which have been highly correlated over time with the prices of energy products, as shown in a previous IOBE report on the Greek economy (report 3/21, box 3.2). Prices in Clothing - Footwear (+2.4%) and Durable goods (+1.8%) also increased. Prices fell in Communications (-2.6%), after a similar decline last year (-2.3%), in Other Goods-Services (-0.9%), where the corresponding decline last year was stronger (-2.3 %), and in Recreation-Cultural Activities (-0.4%, from -0.8%).

To sum up, the recovery of the Greek economy did not undergo structural changes in the final quarter of 2021, with exports playing a key role in this development through a strong growth of services and a significant, albeit lower, growth in goods. The fairly high international tourist flows in the fourth quarter were the main factor in maintaining strong upward momentum in the exports of services, with their growth slowing also due to their comparatively higher base level in the last quarter of 2020. The rise in international tourism is estimated to have continued in the first quarter of 2022, supported by last year's trend, as well as the restrictive measures on international travel that were in place a year earlier. The effects of the war in Ukraine on international travel will strengthen from the second quarter of this year. As predicted in previous IOBE reports on the Greek economy, the expansion of exports of goods continued at a weaker pace in the second half of 2021, due to the negative effect of high commodity prices on international trade. This effect will escalate further following Russia's invasion and the major disruptions it has caused to supply chains worldwide.

The improvement in the external balance (in national accounting terms) was halted in the final quarter of 2021 by the strong expansion of imports. As projected in the previous IOBE report, it came mainly from much higher imports of goods, due to the strong increase in private consumption. The continuation and acceleration of the rise in the prices of energy goods, as well as some food and raw materials, from the first quarter of this year, mainly due to geopolitical developments, will weaken this import dynamic. However, the low demand elasticity of several of these products, as they are widely used by businesses and households, as well as their low demand last year due to restrictive measures, will keep imports on the rise.

The strong growth of household consumption demand largely contributed to the recovery in the fourth quarter of 2021, as there were no activity lockdowns in sectors with a significant share of private consumption. The positive impact on GDP was mitigated by the high correlation between household consumption and imports. The particularly high rate of inflation will largely halt the expansion of household consumption expenditure from the first quarter of this year, despite the positive momentum since last year and the absence of business shutdown measures. The impact of the war (e.g. on the availability of certain goods, tourism) and the increase in the minimum wage are among the most important factors for prices, real income and household expectations for the rest of 2022.

As far as investments are concerned, the significant increase in the formation of fixed capital in the quarter of October-December is solely due to its sharp growth in Machinery, which almost doubled. The source of this change is unknown. It may be largely due to the acquisition of new fighter jets, in which case the production capacity of the Greek economy is not enhanced. Among the other categories of fixed capital, an increase was observed only in ICT equipment and Housing, which in the second case was small, in contrast to their strong rise in the previous quarters of last year. Therefore, the overall picture of the dynamics in the individual investment categories at the end of 2021 shows a weakening compared to the previous quarters. This has also come from the expiration of support interventions for enterprises and self-employed, recorded as investments during this period. The upward trend may widen again this year by the utilisation of capital resources from the Resilience and Recovery Facility (RRF) that have flown to Greece, through the investment projects activated under the 'Greece 2.0' plan. The subdued investment activity in the first quarter of 2021 due to the lockdown will technically boost its growth one year later. The next sub-section presents all medium-term macroeconomic forecasts.

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
2008	249,918	-0.2%	221,539	2.1%	59,020	-9.2%	58,486	3.7%	89,870	1.1%
2009	239,150	-4.3%	219,992	-0.7%	43,185	-26.8%	47,790	-18.3%	71,708	-20.2%
2010	226,122	-5.4%	207,014	-5.9%	38,613	-10.6%	49,959	4.5%	69,241	-3.4%
2011	194,718	-13.9%	176,046	-15.0%	25,700	-33.4%	47,874	-4.0%	55,606	-19.7%
2012	180,638	-7.2%	163,322	-7.2%	20,380	-20.7%	48,937	2.2%	52,556	-5.5%
2013	176,010	-2.6%	156,585	-4.1%	19,680	-3.4%	49,905	2.0%	50,825	-3.3%
2014	177,323	0.7%	156,778	0.1%	20,512	4.2%	53,663	7.5%	54,285	6.8%
2015	176,115	-0.7%	156,310	-0.3%	21,404	4.3%	56,396	5.1%	58,455	7.7%
2016	175,617	-0.5%	156,110	-0.3%	22,768	6.6%	56,232	-0.7%	64488	2.7%
2017	177460	1.1%	159010	1.8%	21642	-5.0%	61229	8.5%	16431	7.6%
α' 2018	44985	2.1%	40244	2.1%	5322	-9.3%	16015	8.5%	17253	4.6%
β' 2018	45048	1.7%	39783	0.2%	6134	16.2%	16778	7.8%	17787	8.4%
γ' 2018	44927	0.4%	39924	0.2%	5528	-0.8%	16969	6.7%	17709	8.9%
δ' 2018	45223	2.0%	39899	-0.4%	6325	28.5%	17049	13.7%	69181	7.1%
2018	180183	1.5%	159849	0.5%	23309	7.7%	66812	9.1%	17774	7.3%
α' 2019	45532	1.2%	40337	0.2%	6097	14.6%	17076	6.6%	17718	8.2%
β' 2019	46012	2.1%	40642	2.2%	5404	-11.9%	17594	4.9%	17973	2.7%
γ' 2019	45968	2.3%	40124	0.5%	5121	-7.4%	18338	8.1%	17833	1.0%
δ'2019	45836	1.4%	40878	2.5%	5959	-5.8%	17069	0.1%	71298	0.7%
2019	183348	1.8%	161981	1.3%	22581	-3.1%	70076	4.9%	17840	3.1%
α' 2020	44931	-1.3%	40609	0.7%	6410	5.1%	16623	-2.7%	15235	0.4%
β' 2020	38889	-15.5%	36010	-11.4%	5755	6.5%	11845	-32.7%	16738	-14.0%
γ' 2020	40974	-10.9%	38310	-4.5%	7266	41.9%	11568	-36.9%	15889	-6.9%
δ' 2020	42587	-7.1%	38591	-5.6%	5507	-7.6%	14942	-12.5%	65702	-10.9%
2020	167381	-8.7%	153520	-5.2%	24938	10.4%	54978	-21.5%	16877	-7.8%
α' 2021	44321	-1.4%	39724	-2.2%	6627	3.4%	16293	-2.0%	18418	-5.4%
β΄2021	44768	15.1%	40724	13.1%	6927	20.4%	14918	25.9%	19992	20.9%
γ' 2021	45656	11.4%	41211	7.6%	6284	-13.5%	17288	49.4%	21160	19.4%
δ' 2021	45850	7.7%	41999	8.8%	7394	34.3%	18542	24.1%	76447	33.2%
2021	180594	7.9%	163658	6.6%	27232	9.2%	67040	21.9%	64488	16.4%

* provisional data. Source: Quarterly National Accounts, ELSTAT, March 2022

Medium-term outlook

- The war in Ukraine and its effects (strong increase in energy prices, slowdown in the euro area, additional fiscal interventions), activity in the tourism sector, utilisation of the Recovery and Resilience Facility, and the revision of the GDP figures for the second and third quarters of 2021 are the major drivers of GDP change in 2021 and 2022.
- Two scenarios for 2022, mainly dependent on the duration of the war and the extent of its impact
- Base 2022 scenario: growth in the region of 2.5-3.0% from new significant reinforcement of international tourism, significantly stronger investment, but also weaker than initially expected expansion of private consumption and exports of products, while overall the external balance will deteriorate.
- Alternative 2022 scenario: growth in the region of 3.5-4.0% due to war end in the second quarter, resulting in a milder impact mainly on private consumption and exports of goods

The economic developments over the two-year period beginning in February 2020 have been driven primarily by the SARS-CoV-2 pandemic - an unprecedented factor in many decades. Two years after the outbreak of the virus in Europe, another particularly unfavorable development on its territory, which had also not occurred for many decades, has a significant impact on the geopolitical conditions and economic developments in the region and globally - Russia's invasion of Ukraine and the war raging between the two countries. The economic consequences of the war are spreading, mainly through the imposition of economic sanctions by the European Union and the US on Russia, which led to similar reactions from the Russian side. The economic effects of the war between the two countries and the sanctions imposed on Russia are reinforced by its primary role in the supply of energy goods worldwide, mainly in European countries, but also by the respective role of Russia and Ukraine in the global production of certain metals. As the conflict continues with unabated intensity, despite the longstanding parallel negotiations between the two countries, its duration and outcome cannot be predicted. Thus, it is quite difficult to assess the economic impact - as the war continues, it is possible that sanctions on both sides will be extended.

With regard to recent developments related to the pandemic, the unprecedented increase in coronavirus cases at the end of 2021, internationally and shortly thereafter in Greece, due to its new variant, was largely reversed in January, with their reduction continuing at a milder pace in February. Despite the downward trend, their level is much higher than before the spread of the Omicron mutation and its latest variant (Omicron 2). Domestically, following the relaxation of certain restrictive measures to protect public health at the beginning of March, but also in some other countries (e.g. the United Kingdom, France, Italy), the number of cases escalated significantly, returning to early January levels. That said, in Greece, the pressure on health systems (from intubated patients), as well as the number of victims, remain proportionally much lower than in previous outbreaks. As a result, no policy interventions were required during the first quarter of this year in addition to those in place in late 2021 and early this year, which were of less intensity and scope than in the past. The epidemiological conditions are now likely to improve in spring, e.g. due to higher atmospheric temperature, which weakens the spread of the coronavirus, allowing the gradual lifting of most restrictive measures.

On the side of recent price developments, inflationary pressures from the recovery of the global economy in the second half of last year and at the beginning of 2022 have escalated sharply due to high concern about the possible shortage of supply in certain energy products, consumer goods (e.g. sunflower oil) and raw materials (e.g. metals extracted in Russia and Ukraine) as a result of the war. Russia produces 11% of the global oil consumption and 17% of the global gas consumption, as well as 40% of its consumption in Western Europe. In addition, Russia and Ukraine hold very large shares in global imports of metals such as palladium (19%), platinum (13%), nickel (14%), and aluminium (6%). The most recent relevant development with the supply of energy products from Russia is Gazprom's decision to receive payments for gas supplies in rubles. Previously, in late February, Canada banned oil imports from Russia, which the US also did in early March, while the UK decided at the same time to phase out imports of Russian oil and petroleum products until the end of 2022. At the end of March, the EU agreed to procure an additional amount of liquefied natural gas from the US this year to reduce Europe's energy dependence on Russia. The objective is to reach an agreement, for a larger quantity, at least until 2030. At the moment, no agreement has been reached in the EU for sanctions on Russia's oil sector, with Germany arguing that the bloc is heavily dependent on Russian oil to impose an embargo. Under these developments, the average spot price for Brent oil stood at $118.1 per barrel in March, 80.5% higher than a year ago and 268.8 % higher than in March 2020, at the start of the health crisis. In the same period, the price of gas per million Btu stood at $4.92 Btu, 87.6% higher than last year and 184% more than in 2020. Clearly, these trends in energy commodity prices, as well as other commodities, will significantly slow the global economic recovery. That said, at these price levels, demand for energy products will weaken considerably, mitigating the rise in prices.

By contrast, positive economic developments domestically in the first quarter of 2022 include: a) persistent tourist flows during the winter months, with a notable recovery in March, and b) the Commission's positive first assessment for the disbursement of the EUR 3.6 billion tranche from the Recovery and Resilience Facility, while projects of the National Recovery and Resilience Plan (Greece 2.0) continue to be speedily integrated in the NSRF.

In detail, starting with recent developments regarding the pandemic, despite the rapid spread and prevalence in the first quarter of 2022 of the Omicron mutation, together with its variant Omicron 2, since February most countries have gradually lifted or repealed public health protection measures. This trend is due to the rather milder symptoms of the dominant mutation for the vast majority of those who get sick, which reflects its respective pathogenetic characteristics, as it generally manifests itself as a mild upper respiratory tract infection. Subsequently, hospitalisations in ICUs, proportional to the cases and as an absolute number, as well as the daily number of victims are fewer compared to previous mutations. Thus, pressure on countries' health systems has weakened since the autumn, which makes it possible to limit the scope and intensity of protective measures. Because of this, international passenger transport, as well as domestic tourism, strengthened during the winter, in Greece too. At the same time, important sectors of the Greek economy, which last year were suspended in the first quarter, were in operation a year later, with mild restrictions (e.g. Retail Trade, Food Services). However, in a few sectors, strong restrictions (e.g. Entertainment-Recreation) were imposed upon the emergence of Omicron, which de facto led to the closure of many of their enterprises.

As no broad restrictive measures have been reintroduced due to the new outbreak of the pandemic, many interventions to support businesses and households have not been implemented again. In the two months of January-February, the furlough of employment contracts, the special purpose compensation, and the suspension of instalments of restructured loans were reinstated for the companies in the Entertainment-Recreation sector. In addition, a special aid programme was implemented, depending on the reduction in turnover. The fact that only 1,989 employees and freelancers were furloughed in February, compared with 61.8k in January, highlights the fact that most companies affected by administrative measures started operating, albeit with restrictions. Meanwhile, successive packages of measures have been decided to deal with the effects of increased energy costs, with the most significant package coming after the outbreak of the war in Ukraine. These are expected to ease inflationary pressures gradually from April. Support interventions that began before the last pandemic wave and continue to hold include the 100% coverage of social security contributions for six months, which has been expanded by 50,000 jobs since the beginning of the new year. The GEFYRA II programme that subsidies loan instalments of households was extended until January 2022. Its beneficiaries reached 10.500 and its payments totalled EUR 280.9 million. The SYNERGASIA programme was extended at the end of March for another two months, until the end of May. For this period, the right to join the scheme have beneficiaries that were full-time employees on 31 October 2021. The budget for this year included the postponement of the payment of the first of the 60 interest-free instalments of the repayable advance from 31/01/22 to 30/06/22. Last October, the rate of repayment of all repayable advances had fallen in line with the decline in the gross revenue of each company. It was also possible to repay the full amount until 31/03/22 with a 15% discount. Recently, the repayment period was extended to 96 months as part of the measures taken in April to address the high energy costs. The maturity period of the credits issued under the Fixed Expenditure Subsidy Programme was extended until 30/06/22. Therefore, in addition to the small extension of certain existing programmes, firms were given support to repay their liabilities to some of these programmes.

New measures were announced to halt energy price increases at the beginning of January. Specifically, for this month, in primary residences of households, for the first 150 KWh electricity consumption 80% of the increase is subsidised by €160/MWh (i.e. €24), while for consumption between 151-300 kWh 60% of the increase is subsidised at €120/MWh (i.e. €18). In households included in the social tariff, the subsidy amounted to €180/MWh, for the first 300 KWh. For households using gas, the subsidy was €20/MWh, for the total monthly consumption. DEPA Commercial granted an additional discount of €20/MWh for all monthly consumption to its customers and a similar contribution was requested from the other providers that use the company's supply. Regarding the enterprises, the subsidy was “horizontal” for all electricity consumption, at €65/MWh, to all non-household tariffs (farmers, commercial, industrial, professional use, etc.). The subsidy for gas use of companies was set at €30/MWh for all consumption. Since last November, the payment of public utility charges for businesses connected to the middle voltage grid has been suspended. In February the subsidy of electricity consumption by households fell to €39 for the first 300 KWh, while it was maintained at €20 per MWh, by both the state and DEPA Commercial. The subsidy for electricity consumption of non-household tariffs was unchanged, while it fell for gas consumption to €20/MWh. In March, the subsidy of electricity consumption by households slightly increased, to €40 for the first 310 KWh, while the remaining subsidies did not change. For April electricity subsidies were broadened for all types of tariffs largely under the influence of a sharp increase in oil prices: €72 to households and €130 to businesses. Micro and small and medium-sized enterprises with a capacity of up to 25 kVA and bakeries were granted an additional subsidy of €100/MWh, as well as a retroactive subsidy for the quarter of January-March. In addition, a fuel card was established for individuals with household income of up to €30k, for the period April-June. The car subsidy is 60 litres of fuel per month and equals 22 cents per litre, so overall for three months it reaches €40, while for a motorcycle it totals €35. The excise duty for diesel is expected to be reimbursed to farmers shortly. The total budget of the energy interventions announced in the first four months of this year, including transfers to vulnerable social groups (low-income pensioners, people with disabilities, beneficiaries of minimum income, etc.) reaches €1.9 billion. As the prices of energy products remain high, it is expected that the measures to support households and businesses will be maintained.

The extension of some supportive policy interventions due to the pandemic, and in particular those that ease the obligations coming from these interventions, will support the operation of a large part of businesses in the first half of this year. The budget for pandemic interventions for 2022 is €3.3 billion. This does not include the measures for the entertainment-food services sectors and, more importantly, the measures taken so far to stem the pressure from high energy costs. If it is deemed necessary to extend these measures or to take additional measures, the related costs will expand further. Therefore, expenditure on support interventions is expected to be well above the target in the 2022 budget, resulting in a significant overrun and a burden on the budget balance, as happened in the previous two years.

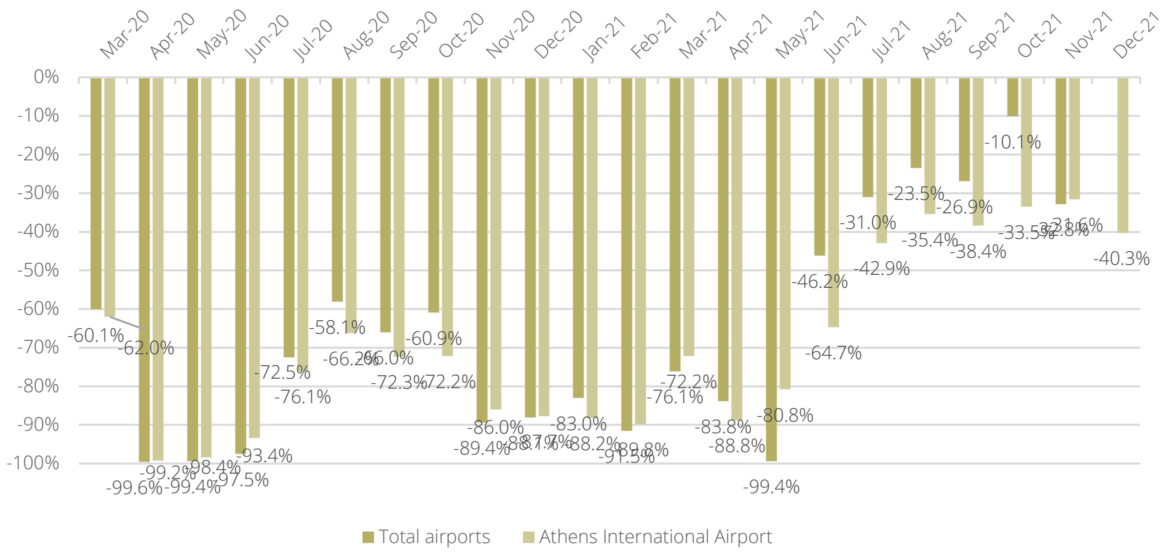
In the field of monetary policy, the ECB significantly reduced the pace of net purchases under the Pandemic Emergency Purchase Programme (PEPP), which ended in March, as announced by the ECB in mid-December. This decision was probably related to inflationary pressures from the provision of excess liquidity and the aim to avoid the "overheating" of the EU economy. The same decision extended the time horizon for reinvesting the funds from maturing securities acquired under the PEPP scheme until at least the end of 2024. Following the conflict in Ukraine, the ECB decided in mid-March that in case of new fragmentation in the markets related to the pandemic, PEPP reinvestments can at any time be flexibly adjusted in terms of time, asset classes and countries. The decision elaborated on Greece. In particular, it stated that this flexibility could include the purchase of bonds issued by the Hellenic Republic in addition to the value of the bonds reinvested at maturity, in order to avoid a disruption of markets in that country, which could negatively affect the transmission of monetary policy to the Greek economy, while it continues to recover from the effects of the pandemic. The focus on Greek government bonds is considered to stem from the fact that, due to their insufficient credit rating, slightly below the investment grade, they were excluded from support through the APP. In March, it was announced that the net purchases through APP are likely to end by the third quarter of this year. The programme's completion will be conditional on incoming data supporting the expectation that the medium-term inflation outlook will not deteriorate even after the end of net asset purchases. Therefore, Greece can henceforth receive from the ECB more liquidity support than other countries under the PEPP, which strengthens confidence in the financing of the domestic economy and its prospects.

The ECB has so far kept its intervention rates and credit lines unchanged, with the third series of targeted longer-term refinancing operations (TLTRO III) completed in June as planned. Meanwhile, in mid-March, the Fed changed its intervention rates for the first time in two years by 0.25 percentage points, reaching 0.25-0.50%. In order to curtail the booming inflation rate, a further increase in interest rates, possibly by up to 0.5 percentage points, is now likely in May.

Despite the new, unprecedented outbreak of the pandemic in late 2021 and early 2022, the year-on-year growth in tourism flows slowed down only slightly compared to previous months. This development occurred at a time when the significance of revenues from international tourism for total revenue from exports of services was small before the health crisis (11.0-13.0% in December-February), compared to the summer months (62.0-64.0%). However, the trend in these months could be seen as a first indication of the sentiment for the coming summer. According to the latest data, the average shortfall in international arrivals at the country's airports last December and February compared to their 2019 level was 38.4% and 40.7%, compared with an average shortfall of 23.3% in the previous quarter.[15] During the winter, international arrivals at Athens International Airport were 43.5% lower than their 2019 level, compared with a corresponding shortfall of 34.5% in the previous quarter. The fall in AIA eased in March, the first month of the war in Ukraine, to levels prior to the recent outbreak of the health crisis (-30.6%), highlighting the significant tourist interest and the potential for expansion of the tourist season.

Figure 3.1

International arrivals at airports (annual % change)



*Change in relation to the arrivals in the same month of 2019

Sources: Civil Aviation Authority, Athens International Airport

The health crisis has overshadowed other developments in the international environment that can affect the Greek and European economy in the medium to long term. These include geopolitical issues in the south-eastern Mediterranean and the implementation of Brexit, the terms of which were agreed in late 2020.

From IOBE's first report on the Greek economy since the outbreak of the COVID-19 pandemic, macroeconomic forecasts have been based on alternative assumptions for factors that are judged to influence key macroeconomic variables from a given point in time and in the medium term. The most important factors in 2020 and 2021 were the evolution of the health crisis in Greece and internationally, especially in the euro area, as well as the magnitude of policy interventions to

[15] There is no available data on January.

contain its impact. They are included in the parameters of the macroeconomic forecast for 2022. An additional, important factor for the course of economic activity in the new year will be the pace of implementation of projects that are part of the Recovery Fund. The parameters of the forecast already include the cost of energy, which is a key production factor for businesses, mainly in industry, as well as a basic category of goods for households. Its strong upward trend in the recent period has increased the importance and impact of energy costs on the forecasting process.

Therefore, the macroeconomic scenarios should take into account, in the form of relevant assumptions, possible developments in the above factors. As 2021 has passed and developments in the vast majority of these factors are known, a single scenario has been developed for the previous year. In 2022, various interrelated developments in the main parameters are likely. In view of this, two different scenarios are presented for 2022.

Under this approach for macroeconomic forecasts, the factors whose changes are expected to affect the macroeconomic aggregates of the Greek economy are as follows:

Box 3.1

Factors whose changes will affect the macroeconomic forecasts

- Evolution of the war in Ukraine and its geopolitical-economic effects
- Trend of the COVID-19 pandemic domestically and in the euro area
- Level of policy interventions in Greece and the Eurozone to address the effects of the war and the health crisis
- Revision of GDP data for the second and third quarters of 2021
- Price fluctuation of energy products setting inflationary pressures
- Implementation of the Recovery and Resilience Plan (Greece 2.0)
- Activity in the field of tourism

Given the above parameters in macroeconomic forecasts, the alternative assumptions about the war relate to the duration of the war and the extent of the sanctions to be imposed by the opposing sides. The two warring “camps” at the diplomatic level are on the one hand Russia, and on the other, the European Union countries, the United Kingdom, the United States, Canada and some other countries, which have imposed sanctions on Russia. As to the impact of the duration of the war, whether it will extend beyond spring is crucial. If the conflict continues in the summer months or later, it will sustain energy costs at a particularly high level, at a time when much of the energy supplies take place for the next winter. In addition, the production of other internationally traded goods from Russia and Ukraine, with significant shares in the relevant global division of labour (e.g. raw materials, food), will be significantly affected, disrupting the functioning of the relevant supply chains. Negative effects will be caused by a sharp escalation of economic sanctions on both sides. The International Energy Agency, which has 31 member countries, recently estimated that by April, 3 million barrels of Russian oil production could be missing from the markets due to sanctions on Russia, but also because buyers avoid Russian exports. This shortage cannot be replaced, at least soon, by production from other countries. That said, there may be changes in supply chains to meet needs that were met before the war by the two countries, such as the expansion of Europe’s supply of natural gas from the US. Obviously, should the war end earlier in spring, the above effects and the changes in the global division of labour will be milder.

As mentioned above, the improved epidemiological conditions compared to previous pandemic "waves" in terms of hospitalisations in ICUs and casualties have allowed the gradual lifting of the public health protection measures taken during the initial spread of the Omicron variant. In particular, since 1 February the opening hours in entertainment venues and restaurants were freed, while music was allowed again. On 12 February the limit of six people per table was abolished. On 19 February, the ban on having standing customers was lifted and the maximum occupancy in the stadiums increased to 50%. In addition, the minimum rate of teleworking in the private and public sectors fell from 50% to 20%. The possibility of having rolling work hours is maintained. On March 5th, the mandatory use of masks was abolished for open spaces. However, the mandatory use of increased protection masks (FFP2/KN95) or double masks in supermarkets, public transport, and for workers in food services remains. On 26/3 the occupancy limit of stadiums was lifted and the number of compulsory self-tests per week in schools was reduced to one.

As a result, economic activity is carried out domestically under the restrictions that existed prior to the spread of the Omicron variant. Most of them concern the unvaccinated. In particular, unvaccinated adults can enter retail stores, open (outdoor) dining areas, hair salons, beauty salons, and other such establishments only with a PCR or rapid test. Regarding offices, since the beginning of November, all unvaccinated employees with an employment relationship or internships, as well as those studying in public or private educational institutions, must do two rapid tests per week. Especially in the health sector, as of mid-August, those working in care facilities for the elderly must be vaccinated. Otherwise, they are placed under a contract suspension. The same applies since 1 September for health workers in the public and private sectors. A significant part of these restrictions, in particular those relating to the admission of the unvaccinated to shops, indoor entertainment venues, food service establishments, museums, exhibitions, conferences, gyms, and stadiums, is likely to be lifted gradually as the summer season approaches, taking into account the evolution of the epidemiological conditions.

As regards the measures for international passenger arrivals in Greece, which affect tourist flows, the additional restrictions due to the latest variant have also been lifted. Since 27 November, Greek nationals and travellers arriving from South Africa, Botswana, Namibia, Lesotho, Zimbabwe, Mozambique, Eswatini, Zambia and Malawi for essential reasons could enter the country on the condition of three negative tests, a 10-day quarantine and a special permit to enter Greece by the competent consular authorities of the Ministry of Foreign Affairs, regardless of their vaccination status. These conditions were lifted on 23 January of this year. As a result, the ban on entry by air into the country of third-country nationals other than those of the European Union and the Schengen Agreement remained in force, with the exception of several countries (42). On 19 February, the exemptions were limited to the 33 countries that have joined the EU Digital COVID-19 Certificate System: San Marino, Albania, Andorra, Armenia, Vatican, North Macedonia, Georgia, Switzerland, El Salvador, United Arab Emirates, United Kingdom, Iceland, Israel, Liechtenstein, Lebanon, Morocco, Montenegro, Moldova, Monaco, Norway, New Zealand, Ukraine, Uruguay, Panama, Cape Verde, Serbia, Singapore, Thailand, Togo, Turkey, Tunisia, Faroe Islands, and Chinese Taipei. Benin and Jordan have been added to this list since 19 March. All travellers, regardless of their nationality and vaccination status, must have been diagnosed negative with a PCR test within the last 72 hours or have alternatively been diagnosed negative with a rapid test within 24 hours of their arrival in Greece. The number of excluded countries is significantly higher than a year ago, when they were only 10, contributing decisively to the strong year-on-year increase in international arrivals in the first quarter.

The lack of restrictions on international land travel was maintained during the spread of Omicron, clearly boosting tourism in Northern Greece compared to a year earlier when only the border station of Promachonas was open for travel for leisure. A stronger boost to tourism is expected this year from cruises, with an expansion of their season, which began on 14 May in 2021. Uncertainty due to the war and the increase in travel costs (transport, accommodation, etc.) due to the rapid rise in energy prices will counteract the above positive effects on tourism. The impact of these interfering factors is clearly linked to the duration of the war and the accompanying sanctions.

Support interventions to address the significantly increased energy costs and more broadly high inflation were presented previously. They are expected to continue, with changes and adjustments, as long as energy prices remain high. If the pandemic and the accompanying support measures for businesses and households do not resurge strongly, the new interventions will to some extent substitute last year's extensive measures, which contributed to the high pace of recovery. However, unlike the previous two years, many businesses will receive support while in operation, rather than under suspension. Therefore, in addition to supporting the real income of households and their consumption, the smooth operation of businesses will also be supported, due to the adverse war conditions, helping them to maintain jobs and meet their current obligations. By contrast, unlike the previous two years, the new interventions will not affect the formation of fixed capital. In addition, the expected from this year progressive return of businesses and households to pre-pandemic conditions is postponed.

The availability of public sector investment funds to businesses will be boosted in 2022 compared to last year mainly from the European recovery fund (NextGenerationEU), primarily under the Recovery and Resilience Facility. Last August, €4 billion - the advance of the funds allocated to Greece (13% of the total) - were disbursed from the fund. At the end of December, a request for payment was made for the first instalment from the Recovery and Resilience Facility to the European Commission, amounting to €3.56 billion. This amount corresponds to the total expected inflows for 2022. In the same period, operational agreements were signed between the Ministry of Finance and six credit institutions to utilise part of the RRF's loan resources, to the amount of €970 million. At the end of February, the European Commission announced its positive preliminary assessment of the first tranche and on 8 April the tranche was disbursed. Overall, 185 projects have been progressively included in the Recovery Fund, with a budget of €8.05 billion. There is no information on the progress of their implementation. The forecast for the 2022 grants amounts to €3.2 billion.

In terms of expected developments in the prices of energy products internationally, in addition to the possible effects of the war on Russia's exports, they will depend on actions in the remaining producer countries. In early March, members of the International Energy Agency, including the United States, decided to make 60 million barrels available from their strategic reserves totaling 1.5 billion barrels. One month later, the members of the IEA decided to make a further quantity of their strategic stocks available, without being specific in their decision. In any case, one million barrels per day will come from the United States, following the government's decision at the end of March to make this quantity available over the next six months. The broader goal of the US administration is a production hike by the country's oil companies that will lead to a drop in the US gasoline prices below $4 a gallon.

Despite unprecedented in recent decades geopolitical developments in Europe since late February and their current and potential effects on energy supply and prices, OPEC+ member countries decided at the beginning of March to continue the moderate expansion of their daily production in April by 400k barrels. In March, the production of the cartel expanded by just 90k barrels per day, a rise that fell well short of the target of an increase of 253k barrels. For May, the target was set at 432k barrels per day. OPEC+, therefore, maintains its policy of gradual softening of the production restrictions, aiming to restore it to pre-pandemic levels within the second half of this year. Taking into account the decisions so far on oil production, combined with the estimated effects of sanctions on Russia and declining demand for its oil exports, as mentioned above, there is a failure to cover a major share of the significantly reduced oil supply. Before Russia's invasion of Ukraine at the end of January, the stocks of OECD member countries were 335 million barrels below the five-year average, at their lowest level in eight years.[16] The current deficit is likely to escalate if further sanctions are imposed on Russia if it changes the payment method, following its decision to accept payments for natural gas in rubles only. Therefore, no significant price de-escalation on the supply side is expected as long as the war does not end.

The current high oil prices are affecting demand and economic recovery. That said, economic activity in developed countries will be supported for the third year in a row by government interventions supporting businesses and households. After two years of pandemic conditions, developing economies have little potential to react to a new crisis, of energy this time. As a result, the intensity of the recovery will vary significantly between regions worldwide and will overall be much milder than anticipated before the geopolitical turmoil. In the event that the war is not prolonged, its inhibitory effects on global recovery will be milder, but the demand for energy will decline less.

Taking this into account, it is projected that in the baseline forecast scenario, in which the war will continue beyond spring, without a new strong outbreak of the pandemic, the oil price will increase this year by around 35%. If the military conflict ends in the spring, the rise in oil prices will be milder, in the region of 20-25%.

The assumptions of the two forecast scenarios for 2022 were formed taking into account the alternative assumptions regarding the evolution of the war in Ukraine and its impact, notably the strong increase in the prices of energy products and certain raw materials, but also the budgetary interventions to contain these effects, the dynamics of the COVID-19 pandemic in Greece and internationally, the revision of GDP figures for the second and third quarters of 2021, and the progress in the implementation of the Recovery and Resilience Plan. The baseline scenario is based on the assumption that the war will not end in the coming period, in spring or early summer, but will continue after it. Energy costs will then remain at particularly high levels for a long time, from escalating sanctions, a general reluctance to import from Russia, and the inability of energy supply chains to adapt quickly to such a major disruption. The average annual rise in the price of Brent oil is expected in the region of 30-35%. In response to these price dynamics, extensive measures will

[16] Source: Oil Market Report – March 2022, International Energy Agency

be implemented to subsidise energy consumption and income support to vulnerable social groups, providing a significant boost to the economic activity of households and businesses. However, inflation will be on average at rates not seen in many years. With regard to the health crisis, no further significant outbreak is expected, particularly with regard to intubations and deaths, so no generalised restrictive measures will be reintroduced. Seasonally targeted measures may be reintroduced, also for vulnerable population groups (e.g. elderly, unvaccinated). Under these conditions internationally and in Greece, a further expansion of the tourist season is expected, towards spring, yet international tourism flows will grow less than expected earlier this year, due to a deterioration of the international environment and a milder economic recovery. Taking this into account, revenues from international tourism services will strengthen compared to 2021, reaching about 70-75% of their 2019 level, an increase corresponding to an enlargement compared to 2021 by €2.1 billion to €3.0 billion. The war will have a significant impact on the recovery in the euro area, which is expected to be 1.5 to 2.0 percentage points lower compared to the European Commission's latest pre-war forecast of 2.0-2.5%.[17] As regards the utilisation of RRF, it is assumed that the budget revenue target for 2022 (subsidies of €3.4 billion, loans of €1.85 billion) will be met and projects already included in the Recovery Fund will be implemented to a high extent, leading to the relevant targets on expenditure (€3.2 billion) and new loans (€586 million) being met or exceeded.

The main difference between the base and the alternative scenarios for 2022 lies in the predicted evolution of the war and its consequences. In particular, in this scenario, a ceasefire agreement is reached in spring or early summer. Energy costs will then begin to fall mildly from the current very high levels this summer, as demand for imports from Russia will gradually increase and supply chains will be restored. However, also in this case energy product prices will remain significantly higher in the second half of 2022 compared to the corresponding period a year ago. The average annual change in the price of Brent oil is expected in the region of 20-25%. A slightly smaller increase in energy prices will allow for a significantly smaller scope of energy consumption subsidy measures and income support for vulnerable social groups. Subsequently, their positive effects on the economic activity of households and businesses will be milder. Inflation will average lower levels than in the baseline scenario, but it will be one of the highest in many years. As regards the health issue, the assumptions are the same as in the baseline scenario. Under these conditions internationally and in Greece, a new expansion of the tourist season is expected in this scenario, towards the spring, as well as a greater increase in international tourism flows compared to the base scenario. Revenues from international tourism services will reach the region of 80-85% of their 2019 level, an increase corresponding to an expansion compared to 2021 by €3.9 billion to €4.7 billion. The war will affect the recovery in the euro area less than in the baseline scenario, with growth 1.0 to 1.5 percentage points lower than the Commission's latest pre-war forecast of 2.5-3.0%. Differences in the absorption of RRF funds and the implementation of the related projects are not expected, as these processes must be independent of the evolution of the war, so this aspect does not differentiate between the baseline and the alternative scenario.

Moving on to developments in funding figures that can play a key role in investment activity, the domestic banks continue to expand the use of ECB instruments to raise liquidity that emerged in response to the exceptional circumstances of the pandemic. Under the Pandemic Emergency Purchase Programme, the ECB had made by the end of March, when net purchases of securities

[17] European Economic Forecast, winter 2022, European Commission, February 2022

from all countries under this programme were completed, total cumulative purchases of €1.72 trillion. This amount was lower than the initially planned purchases envelope of €1.85 trillion. The net purchases from Greece in particular reached €38.5 billion at the end of March. Recall that the reinvestment of funds from maturing securities under the PEPP has been extended until at least the end of 2024, instead of the end of 2023 as previously foreseen.

Other liquidity facilities by the ECB to contain the impact of the pandemic included the non-targeted Pandemic Emergency Longer-term Refinancing Operations (PELTROs). In addition, the terms of the Targeted Longer-term Refinancing Operations (TLTRO III) gradually eased, resulting in eligible Greek banks' loans from the programme reaching €92 billion, while their borrowing limit gradually increased from 30% to 55%. Against this background of financing possibilities, the Eurosystem's liquidity raising of Greek banks averaged €38.5 billion in April 2020-February 2022, totalling €50.84 billion at the end of the period. In the latest three months for which data are available (December 21-February 22), capital raising escalated sharply, reaching €3.98 billion, compared to just €50 million in the preceding quarter. Therefore, the availability of funds from the ECB to the banking system for, among other goals, providing financing to enterprises is high and has been further strengthened significantly in the recent period. The use of these resources can be crucial for the Greek economy to exit the pandemic at a steady, significant pace of recovery.

The continued growth of private sector deposits (households and non-financial corporations), at a high pace, since the beginning of 2019 has also boosted the possibility of granting loans. Following their average expansion in 2020 by 9.7% or €13.0 billion, private deposits rose faster last year, at an average annual rate of 13.0% or by €19.3 billion. In the recent quarter of December-February, the expansion of deposits slowed slightly to 9.9% or by €15.8 billion. The new growth in this period came almost equally from higher household deposits, by €8.1 billion (+6.3 % compared to a year ago) and businesses, which expanded by €7.7 billion (+24.0%).

While the ample liquidity from the ECB, the strong upward trend in private deposits over the past two years, as well as the activation of the loan arm of the Recovery Fund are conducive to credit growth by banks this year, there are also some factors that mitigate this momentum. The most important are the suspension of payments of bank loan instalments until at most the end of 2021 and the continued in the first quarter of 2021 partial subsidy of loan instalments (Bridge II programme), which do not allow the real dynamics in non-performing loans (NPLs) to transpire. Also, the very strong inflationary pressures due to the war in Ukraine and the uncertainty it causes about developments in the global economy are expected to lead households and businesses to use part of their deposits mainly to cover their current expenses. According to the Financial Stability Review of the Bank of Greece, the balance of non-performing loans under legal protection in December 2021 stood at €1.4 billion, i.e. 4.9% of on balance sheet NPLs.[18] In the same report, the Bank expressed the view that some of the loans under support (e.g. through programmes such as "Bridge") are likely to be recorded as NPLs when the facility expires.

The current resurgence of uncertainty due to the war in Ukraine is also among the causes that will weaken the demand for capital from businesses and households, compared to what was expected before its start. That said, due to the inflationary pressures it has caused, it is possible that interest rates will rise in the coming period, so some firms may rush to make use of the current, better

[18] Monetary Policy – Interim Report, Bank of Greece, December 2021

financing conditions. In addition, a sustained, vigorous recovery in some sectors will boost demand for bank credit. For example, in Industry, the production index rose sharply last year, on average by 9.9%, following a much milder decline in 2020 (-2.0%). This trend is related to the strong growth in exports of goods, with the increase in non-petroleum products in the same period of time reaching 28.0%, highlighting the high competitiveness of certain industrial sectors and facilitating their financing. Recovering a significant part of previous tourism losses in some regions will also contribute to a greater demand for liquidity from the banking system.

As regards the evolution of non-performing loans (NPLs), the latest data refer to the last quarter of 2021. On this basis, their strong quarter-on-quarter decline continued in this period, by €6.1 billion or 24.0%, to €19.4 billion or 12.1% of total loans. A year earlier they stood at €57.9 billion or 32.8% of loans. The strongest contraction in NPLs occurred in the fourth quarter in business (-€2.95 billion or -17.4 %) and housing loans (-€1.66 billion or -32.1%). Overall, the reduction was achieved primarily through transfers and securitisations of portfolios, mainly through the use of the programme that provides government guarantees to securitisations of loans of credit institutions, known as Hercules, and less to receipts through active management (loan restructuring/settlement, arrears collection, etc.). Loan sales under this programme reached €26.2 billion in the first nine months of the previous year. Following these developments, the level of NPLs is around €99.9 billion or 83.8% below their peak level from March 2016.

Following their new extensive reduction in the October-December quarter, the NPLs fell as a percentage of total loans well below the revised end-2021 target (below 20% of loans). However, in addition to the results from the management of NPLs, their reduction since the second quarter of 2020 has come from borrower support interventions. As these interventions expired at the start of 2022, an increase in non-performing loans within the year is quite likely. The possible expansion of NPLs highlights the need to make immediate use of all possibilities for their reduction.

As regards the actions in the current period and in the near future for the further reduction of NPLs, Piraeus Bank completed in early March the sale of the Dory portfolio, which includes non-performing exposures in the shipping industry, to a Davidson Kempner company, with a gross carrying amount of €420 million. Two more small-scale securitisations and sales of individual corporate loans are expected, which will reduce the stock of NPEs by around €1.45 billion. In particular, the Sunrise III securitisation, which includes non-performing exposures with gross book value of approximately €820 million, is expected to be completed in the second quarter of the current financial year. The joint securitisation Solar with Alpha Bank and Eurobank, which includes non-performing exposures from syndicated loans, is expected to be completed Towards the end of 2022. Piraeus Bank accounts for loans with a gross book value of €472 million. Finally, the stock of NPLs is expected to decline by approximately €800 million through organic actions. The process of securitisation of the Frontier II loan portfolio of €0.9 billion is underway and is expected to be completed in the first half of this year. As far as Alpha Bank is concerned, the sale of the Orbit portfolio with a total book value of €1.3 billion and a total outstanding balance of €2.1 billion was completed at the end of March. In addition, a binding agreement with Cerberus for the sale of NPLs and real estate in Cyprus with a gross book value of approximately €2.4 billion (project Sky) was signed in mid-February. This portfolio consists of two sub-parts. One concerns large corporate loans with gross book value of approximately €0.9 billion. The second includes loans with a gross book value of approximately €1.3 billion. The largest current NPL sale is the Ariadne project, which includes loans with a gross book value of €5.2 billion and a total receivable of almost €14 billion. It will take place outside the Hercules programme. Two binding offers were submitted at the end of February: one from a consortium consisting of at least Bain, Fortress, Davidson Kempner, doValue and Cepal (it is not known whether a Canadian fund and Deva Capital of Banco Santander are also taking part in the consortium) and another one from the Intrum-Cerberus partnership.

In light of the favourable developments for the accumulation of capital from the banking system mentioned above, i.e. the provision of ample liquidity by the ECB due to the pandemic, as well as the strong upward trend in private deposits over the past three years, the provision of more bank credit to non-financial corporations has continued. However, the pace weakened sharply in January-September last year and has since been much lower than at the beginning of the year. Specifically, it stood at 3.0% in December 2021-February 2022, compared with 9.4% a year earlier. Over the same period, the average rate of credit contraction to households (2.3%) was virtually unchanged, both against the 2021 average (2.5%) and compared to a year ago (also 2.5%). The private sector as a whole experienced marginal credit growth in December-February, at an average rate of 0.6%, compared with 3.5% in the same period a year earlier.

The weakening of credit growth to non-financial corporations is not related to a similar trend in overall financing of the economy by the banks, which expanded much faster in December 2021-February 2022, by 10.2%, from 15.2% a year ago. The weaker growth of loans to the business sector is mainly related to the strong growth of lending to the general government, which reached 33.1% on average in the recent quarter. Although this rate is particularly high, it is much lower than a year ago when it had reached its highest level in at least the last 23 years (73.6%). Therefore, the increase in the interconnection of the banking system with the government continues, as noted in a recent report of the Bank of Greece. This trend creates uncertainty about the financing priorities of banks and, more broadly, whether the significant additional liquidity of recent years is used for productive purposes. The weaker growth of loans to the business sector is also due to the absence of emergency liquidity programmes to address the effects of the pandemic.

The provision of liquidity to companies continues to take place on particularly favourable terms: the average interest rate for new maturing loans to non-financial corporations stood at 2.75% in December-February, marginally higher than in the previous quarter (2.64%), when it had reached a historical minimum since at least 2010. The average interest rate of the same category of new loans, but to freelancers, was slightly lower in the recent period compared to the previous period, at 4.78% from 4.88%, close to the minimum level since at least one year ago (4.65%). In new consumer loans to households, the corresponding average interest rate stood at 10.57%, higher than a quarter ago (10.33%). Unlike the interest rates on loans to non-financial corporations and freelancers, the current rates for households are the highest since the second quarter of 2003, i.e. in 19 years. Following the strong, unprecedented inflationary pressures in the euro era, it is now considered likely that the ECB will raise its intervention interest rates in the coming period, which will trigger a similar trend in domestic interest rates. Given this, the current financing conditions for businesses are particularly beneficial.

The lower interest rates for bank lending to companies and freelancers in 2021 are also related to the strong decline of Greek government borrowing rates. As stated in previous IOBE reports, this trend is due to the evolution of Greece's creditworthiness and to the ECB's exceptional monetary policy measures in response to the pandemic. In light of these effects and the ease of the pandemic since last summer, the 10-year bond rate reached its minimum level in August 2021 (0.59%). At the end of September last year, Moody's did not change Greece's credit rating (Ba3). The rating agency estimated in the same report that the return of the country to significant primary surpluses would significantly reduce the debt burden, yet even after the fiscal normalisation the burden will remain high. However, the agency did not issue, as planned, a report on Greek debt in November. This January, Fitch maintained last year's BB rating, upgrading the country's outlook to positive from stable. This opens the way for an upgrade to BB+, i.e. one grade below the investment class.

Despite these clearly positive developments, the 10-year Greek government bond yield rose continuously in September 2021-January 2022, by 103 basis points overall, reaching 1.62%, the highest rate in 20 months. At the same time, the corresponding yield on German bonds rose by 42 basis points to -0.12%. As a result, the spread of the Greek bond expanded by 61 points, reaching 174 points. Therefore, the yield of the Greek 10-year and the spread against the German bund increased notably in the five months before the war in Ukraine. Under these trends in performance and the developments in its credit rating, the Greek government made only one bond issue so far this year in January, with a ten-year maturity, at a rate significantly higher than that of the previous bond issue of the same maturity last June, at 1.84% from 0.88%. The issue raised €3 billion, the vast majority from foreign investors (84.5%), with the total bids reaching €15 billion. Following the outbreak of the war, the yield strengthened significantly, reaching 2.9% in early April, with the spread exceeding 200 bp. This upward trend, combined with the Greek government's borrowing target of €12 billion from the markets in 2022, hampers new bond issuances in the current period. However, note that in previous IOBE reports on the Greek economy, the possibility that international financing conditions would change and deteriorate, especially when exceptional liquidity support interventions by the largest central banks worldwide would be greatly reduced or completed, was repeatedly stressed. This dynamic was reflected in the yields on Greek bonds before the war in Ukraine.

Despite the widespread slowdown in credit growth to businesses, the ECB's financing facilities, the prolonged rapid expansion of deposits, and the start of the recovery fund's loan arm are expected to contribute to its further growth this year, albeit at a low pace. On the last factor, an operational agreement has been concluded with the European Investment Bank (EIB) for up to €5 billion of the total €12.7 billion, while a corresponding agreement was concluded with the European Bank for Reconstruction and Development (EBRD) to co-finance private investment. About €500 million has recently been disbursed to the EIF. Under the previously mentioned operational agreements between the Ministry of Finance and six credit institutions for the utilisation of €970 million loan resources under the process foreseen by the Recovery Fund, the credit institutions have made public calls for expressions of interest to investors wishing to receive loans from "Greece 2.0" for the implementation of their projects. According to the 2022 budget, a venture capital fund will be set up under the Hellenic Development Bank (HDB). The extensive restriction of NPLs provides significant degrees of freedom for banks to provide credit this year and in the coming years. It should be noted that the debt resources that have so far been allocated to the banking institutions are those raised last year. An additional €1.85 billion is planned to be raised this year, which will be allocated to the above categories of credit institutions.

While these positive developments, which create corresponding prospects for the provision of credit, are taking place, there are still barriers to finance businesses and households. These relate to existing debt obligations and in particular their arrears. The most important case is the pan-European requirement that for SMEs to be included in the Recovery Fund programmes they should have access to bank financing, i.e. they should be positively assessed by banks. This financing clause excludes from new resources the large number of highly indebted domestic enterprises. As part of efforts to address this issue, incentives for mergers and acquisitions are planned, as such corporate transformations between SMEs are included in the five eligibility criteria for access to the Recovery Fund loans. The war in Ukraine and its impact on energy costs are making some businesses with investment plans reluctant to implement them. Thus, they are expected to keep a waiting stance until a ceasefire agreement can be foreseen.

Especially for the largest non-financial corporations, the possibilities of access to finance outside the banking system, i.e. from the capital markets, and more broadly their prospects, had improved before the war, based on the evolution of the General Index of the Athens Stock Exchange. From mid-April to early January this year, the index fluctuated, with minor corrections, around 900 points, periodically approaching the pre-pandemic area of 920 points. In fact, from mid-January until the beginning of the war, the index was even higher, at 950 points, reaching up to 971,05 points. The conflict dramatically changed this upward momentum, with the index dropping between 24 February and 8 March by 160 points or 16.9%, to 789.7 points, which was its lowest level since mid-February 2021. Since then, with the exception of the penultimate week of March, the index has recovered most of its losses due to the war, as on 8 April it again exceeded 900 units. As the uncertainty about developments around the war remains particularly strong, the observed rise is seen to reflect confidence in the prospects of listed companies and, more broadly, the Greek economy, due to the implementation of the Recovery Fund. However, if the duration of the military conflict will be long, with a prolonged strong impact on energy costs, then to some extent, these prospects and expectations will be negatively affected.

Investor confidence in the prospects of larger firms domestically in the medium term is reflected in corporate bond issuance activity, which strengthened towards the end of 2021. In September, Eurobank issued a 6.5-year bond of €500 million and a coupon rate of 2.375%, with bids reaching €825 million. In the middle of the same month, Alpha Bank issued a senior preferred bond of €500 million. The final interest rate stood at 2.625%, with bids exceeding €1 billion. This was the first issue of such a security by a systemic bank since June 2014, with the aim of meeting the minimum requirements for own funds and eligible liabilities (MREL). In mid-November, ELVAL-HALCOR issued a bond issue of €250 million, with a final rate of 2.45%, which was oversubscribed 2.94 times. In early December the trading of Noval Property's green bond was launched, which raised €120 million at an interest rate of 2.65%, while the issue was oversubscribed 2.8 times. During the same period, Alpha Bank issued a new senior preferred bond of €300 million, with a two-year maturity, a non-call for the first year and a 3% issuance rate. At the same time, the same amount was raised by GEK-TERNA, with a seven-year bond, with a coupon rate of 2.3%, over-subscribed 2.3 times. At the beginning of 2022, before the invasion of Ukraine, no new bonds were issued. It is likely that the war and its impact on capital markets have put on hold company plans to raise capital through this process.

As regards public sector funding opportunities for companies, data on the European Recovery Fund, which will be the most important additional source of investment funds this year and in the coming years, were previously cited in the current subsection. As the rate of allocation of RRF funds is among the factors influencing the alternative macroeconomic scenarios for 2022, if close to the respective assumptions, it will contribute to the realisation of the scenarios.

With regard to the regular government funding of investments by the Greek State, through the Public Investment Programme, the relevant target set in the 2021 draft budget for last year was €6.75 billion excluding COVID-19 transfers. Over the previous year, PIP payments amounted to €8.7 billion, slightly below the revised 2022 budget target for last year, which also incorporated support interventions (€8.9 billion). However, excluding the pandemic expenditure of around €2.9 billion or 32.2% of its total, mainly in the form of repayable advances (€1.1 billion) and support to SMEs affected by COVID-19 (€741 million), the programme's investment grants totalled €5.8 billion. Therefore, they were short of the target of last year's budget by €1 billion.

For 2022, the preliminary draft state budget earmarked €7.8 billion through the PIP. These do not include expenditure under the Recovery and Resilience Plan, as well as emergency interventions due to the health crisis. With the supplementary budget presented at the beginning of April, the appropriations foreseen through the co-financed part of the PIP increased by €600 million, so its total budget amounted to €8.4 billion. In the first two months of this year, support through the programme reached €1.33 billion, while excluding pandemic interventions, they amounted to €1.1 billion. This level is well up year on year (€672 million) and against the spending target for the two-month period (€900 million), which is seen as a first indication of the expansion of support for investment activity by the PIP compared to 2021.

As stated in IOBE's reports on the Greek economy during 2021, the implementation of the privatisation programme last year, for another year, lagged behind the target, due to the unfavourable investment environment. In the 2021 State Budget Explanatory Report, the target of privatisation revenues was €1.79 billion, of which €1.47 billion was foreseen to come from tenders to be completed in the previous year and €321 million either from tenders for which binding bids had been submitted and the expected first disbursement would have taken place last year, or from instalments of completed transactions from previous years. The strong uncertainty about the pandemic dynamics in most of the first half of 2021 had a negative impact on HRADF's activity and investment interest. A number of important tendering procedures were completed during the second half (Egnatia Odos, DEPA Infrastructure) and their pre-contractual audit by the Court of Auditors is pending. In addition, the tenders for the concession of the marina Kalamaria, the ports of Alexandroupolis and Kavala, for the natural gas field South Kavala, for the Port Organisation of Igoumenitsa, for the Port Organisation of Heraklion and the Marina of Pylos were launched last year or continued from previous years.

Although several tender procedures are ongoing and two particularly important (Egnatia Odos, DEPA Infrastructure) have been completed, the proceeds from privatisations made last year are those from Hellinikon SA, the Afantou Golf Course and the granting of rights of use for radio frequencies. In the 2022 budget, they were estimated to have reached €625.7 million, accounting for 42.6% of the target. Thus, the effect of privatisations on investment activity continues to be lower than expected. That said, as the procedures required for the formal completion of the tenders for Egnatia Odos and DEPA Infrastructure will be completed this year, the corresponding fees will be collected. These are the most important components of the 2022 privatisation revenue target of €2.151 million (91.7% of the target). Another €178.7 million will come from revenues and instalments of completed transactions of previous years, with the second part of the fee from the sale and transfer of Hellinikon S.A. (€167 million) making up the largest part. As the expected revenue comes almost exclusively from completed actions, it is considered quite likely that the target for this year will be achieved. However, the target should have been higher, given the ongoing actions since last year, coupled with some new actions planned for this year.

Regarding the recent actions of HRADF, the tender procedure for the new concession of Attiki Odos for 25 years began at the end of January. In mid-March there was an expression of interest from an investment scheme for the concession of the Itea Marina, while in early April eight investment schemes qualified for the next phase of the tender for the Port Authority of Heraklion.

In the external sector of the Greek economy, its operation, as in most economies, at the end of 2021 and the beginning of 2022, without prohibitions and restrictions on businesses and travel, in contrast to a year earlier, mainly boosted the imports of goods and the exports of services. A particularly strong recovery in the second and third quarters last year domestically, which boosted consumer demand, contributed to the strengthening of the former (imports of goods). Previously in the current subsection, available data on international tourism flows for the first quarter of this year were presented, showing signs of continued strong year-on-year growth, despite the war in Ukraine. In addition, they revealed an expansion of the tourist season towards the beginning of spring. More broadly, there are prospects for a new increase in international tourism in 2022. However, the impact of the war on international trade, mainly on energy supply chains and some raw materials, will hit imports and exports of goods in 2022. The impact may be stronger on the latter, due to their greater energy content.

In detail with respect to recent developments in export and import flows of key categories of products and services, according to the latest available balance of payments data of the Bank of Greece, exports of products, at current prices, continued to expand strongly in the quarter of November-January, by 38.8% (+€1.0 billion), following an increase of 44.8% in the previous quarter. The increase came for another quarter mainly (60.3%) from non-fuel-and-ship exports, which increased by 30.4% (+€603 million), as in the quarter of August-October (+30.7%). The rest of the increase in exports of goods came from much higher fuel exports (+72.1% or +€410.9 million), due to a sharp increase in global energy prices. Exports of ships, whose weight in total exports of goods is very small, fell by €13.5 million or 1.3%, against an expansion of 10.4% a quarter earlier. Therefore, the particularly significant increase in exports of goods did not come mainly from higher prices of energy goods. Despite strong growth in the exports of goods, the stronger import boost in November-January (+57.2% or +€2.34 billion), which came primarily (54.7%) from higher imports of goods excluding ships and fuel (+39.9% or +€1.28 billion), and secondarily from imports of fuels (+15.8% or +€1.08 billion), led to a widening of the goods deficit compared to a year earlier by 88.6% or €1.34 billion, to €2.85 billion.

The widening of the deficit in the balance of goods in November-December moderated to a small extent the widening of the surplus in the services balance. Exports of services were 61.7% higher than a year ago (+€933.3 million), after a stronger growth (90.8%) in the previous quarter (August-October). Their rise mainly (74.2%) came from the provision of transport services (+€692.7 million or +67.8%), after a similar increase a quarter earlier (+36.4%). Travel services contributed 16.4% of the increase, as they expanded strongly, by €152.6 million (+328.8%), as severe restrictions on international passenger transport had been imposed in the same period a year earlier. The lowest share of the growth in exports of services had other services, amounting to €88.0 million (+19.8%), after their growth of 21.9% a quarter earlier.

The demand for imported services also expanded in the quarter November 21 - January 22, at a higher relative (+64.5%) but lower absolute (+€783.3 million) intensity compared to the exports of services and slightly weaker than in the previous quarter (+73.5%). The increase came mainly (84.3%) from stronger domestic demand for transport (+89.4% or +€660.4 million), with tourism services contributing to the rise (8.8%) against the restrictive measures in place a year ago (+201.5% or +€68.6 million). Domestic demand for other services increased less (+€54.3 million or +12.3%), as was the case a quarter earlier (+25.3%). As a result of the changes in the two main components of the services balance in November-December, its deficit expanded sharply by 50.3% or by €149.9 million. Overall, the deficit of the total balance of goods and services over that period increased by 98.0%, or €1.19 billion, reaching €2.41 billion.

In terms of the most recent trends in parts of economic activity domestically, as well as in short-term economic indicators, during the first quarter of 2022, before the war in Ukraine began, there was mostly a slowdown in growth trends, on the side of both production and demand. On the supply side of the economy, the rise in industrial production weakened to 2.2% in January-February this year, compared with an increase of 11% in the previous quarter and an increase of 3.9% a year earlier (+0.9%). At the level of key industrial sectors, the noticeable deceleration was mainly driven by electricity generation, where the rise of 16.9% in the previous quarter was followed by a 5.4% decline at the beginning of 2022. The trend also changed sharply in Mining-Quarrying, from +2.6% to -16.0%. In Manufacturing, the rise continued, but at a milder rate (+5.2% from +10%). Water supply was the only sector in which the trend in production did not change and remained mildly upward, at +0.9% from +1.2%. Construction activity continued to expand significantly in October-December, albeit milder than in the previous two months. In particular, it increased by 32.4% in terms of surface and 43.2% in terms of volumes, with slightly milder growth (26.5%) in the number of permits. In the previous quarter, the corresponding changes stood at 58.2%, 64.5%, and 10.2% respectively.

In the indicators reflecting the climate and demand-side propensities of the domestic economy, the (seasonally adjusted) volume index in Retail Trade increased in January by 9.2%, after a much stronger rise in the fourth quarter (+18.5%).

Taking into account for the macroeconomic projections the recent and anticipated developments related to the war in Ukraine and its impact, such as the strong increase in energy prices and the weaker recovery of the global economy, as well as the fiscal interventions to contain these effects, the momentum of the COVID-19 pandemic, and the less-than-anticipated rise in international tourism, it is expected that most of the restrictions caused by the pandemic will be lifted in the spring, while any further escalation will not exceed the current, mild levels. Thus, the physical operation of sectors suspended in previous years and where a significant part of private consumption takes place (Retail Trade, Tourism, Food Services, Arts-Recreation, Transport, etc.) will not be interrupted again, especially in the first quarter. Household consumption will also be stimulated by the expansion of employment in these sectors compared to a year earlier, a trend already recorded since the second half of 2021. Jobs will also be created by higher investment, e.g. in highly export-oriented manufacturing branches, in Tourism, as well as by the greater contribution of the public sector to investment activity (larger PIP, the recovery fund). Household consumption expenditure will continue to be supported by savings accumulated during the pandemic.

By contrast, the expansion of household consumption spending will be curbed by exceptionally high inflation, primarily due to the war in Ukraine, but also the ongoing significant recovery of the global economy, but at a milder pace than expected before the Russian invasion. Consumer confidence will be dampened by the general uncertainty while the war is raging. In the baseline forecast scenario, in which the war will continue after spring, these effects will be strong. Inflationary pressures on consumption will be mitigated by household support interventions (subsidy for electricity, gas, and petrol consumption, increased heating allowance, extraordinary transfers to vulnerable social groups, etc.). If the duration of the turmoil will be long, the duration and scope of the measures to address it will be similarly extensive, largely replenishing the emergency support measures due to the pandemic in the previous two years. The real disposable income of a segment of the population will be strengthened by the middle of the year by the minimum wage raise. As a result of these effects on employment, real disposable income, and consumer confidence, household consumption is expected to expand in the baseline macroeconomic forecast scenario by 1.5% to 2.5%, weaker than expected in the previous IOBE report on the Greek economy (3.0-4.0%).

The alternative scenario differs from the basic scenario in terms of the war duration and hence its impact. In this scenario, the hostilities are expected to end in spring or early summer, resulting in sooner restoration of the supply chains, with the high energy cost falling accordingly. However, it will remain significantly higher than last year throughout 2022, keeping inflation at a fairly high level, but lower than in the baseline scenario. More broadly, household uncertainty will deteriorate less and consumer confidence will be restored more quickly. Meanwhile, in this case, fewer support measures for the energy cost will be needed, so these will fall significantly short of the household support interventions last year and in 2020. Positive effects are expected from a faster conclusion of the war on investment too, due to less uncertainty about its conclusion. As a result, household consumption expenditure is expected to grow stronger than in the baseline scenario (+3.0% to +4.0%).

On the consumption side of the public sector, as already mentioned, the war, depending on its duration, necessitates the implementation of additional support measures. As the pandemic continues in 2022 with relatively high intensity in terms of some indicators (intubations, infections), the need for relevant materials and equipment will be maintained high. An expansion of public sector employment is planned for this year, with 20,600 recruitments and appointments. According to the 2022 Budget Report, due to the high number of exits from the Ministry of Health in 2020-2022, the recruitments of this ministry will account for 29% of total recruitments this year. Next come recruitments in military schools (12%), other central administration bodies (10%) and professional armed forces (8%). In the first half, staff costs will be boosted by the recruitment of 11,700 primary and secondary teachers in the third quarter last year. The strengthening of employment and the many exceptional support interventions in the event of a long war will mitigate the reduction of public consumption spending to about 1.5-2.5%. If the conflict ends within the coming months, the additional interventions that will be needed will be fewer, allowing for a substantial reduction of public consumption expenditure after two years of high deficits due to the measures against the pandemic (-3.5 to -4.5%).

If the war in Ukraine continues over a long period, it may have an impact on some of the investment drivers, most likely in the medium to long term (baseline forecast scenario). Clearly, these drivers include the energy costs and the prices of certain other raw materials which came to a significant extent from Russia and Ukraine, the increase of which has a significant impact on the companies' operating costs and inputs and subsequently on their profit margin. Moreover, the disruption that will occur in the value chains involving not only Greek companies, but also companies from other EU countries, the main export destination of Greece, whose domestic companies are suppliers, change the prospects of businesses and investments, in a way and to an extent, which is premature to assess. Of course, it is possible that such developments will strengthen the role of certain domestic companies with competitive advantages in activities dominated by Russian companies in the past. The duration of the war will be a decisive factor for the degree of manifestation of the above effects.

With regard to other factors that determine investment decisions, the high corporate lending since 2020, which is expected to continue this year at a much lower pace, has created the possibility of making investments for a significant part of businesses, as highlighted in previous IOBE reports on the Greek economy. The implementation of Hercules II will contribute substantially to the compensation of any negative developments in the assets of banks from the pandemic, such as an enlargement of NPLs, but also more broadly, to their extensive reduction, as already demonstrated by the relevant actions of banking institutions and their results in the second and third quarter of the previous year. This factor supports credit growth in 2022. As far as deposits are concerned, their upward trend is thought to have continued in early 2022, but at a milder pace. During the rest of the year, a temporary halt is likely, due to the increased cost of living, due to high inflation rates. The loan arm of the European Recovery Fund will be an additional source of capital for banks from this year. Among the sectors that are expected to take advantage of the available liquidity, investment activity is most likely to expand for companies from manufacturing activities whose demand is either related to or resilient to the health crisis (e.g. medicines, computer manufacturing, plastics). The strong recovery in international tourism in 2021, which will continue this year in both scenarios, milder than expected before the war, will rekindle investment activity in the sector.

As noted in IOBE reports, the aid from exceptional measures to address the impact of the pandemic on businesses and the self-employed (e.g. repayable advance, corporate guarantee fund, loan and working capital interest subsidy), although not related to investments, is partly reflected in investment expenditure in GDP, as it is allocated under the Public Investment Programme. Overall in 2021 such expenditure reached €2.9 billion. In the first two months of this year, it was in the order of €237 million, as part of the exceptional support interventions implemented during the initial outbreak of the Omicron variant. However, as all the public health protection measures taken for this purpose and related to businesses were lifted in February — March, the relevant support actions are also expiring. Moreover, given that strong restrictive measures due to the pandemic are not expected to be reintroduced in either scenario, the impact of this factor on investment will be much weaker than last year.

The resources made available under the Recovery and Resilience Plan (Greece 2.0), together with the domestic resources leveraged for the investment projects selected for support, will outweigh the significant weakening of the positive effects from the pandemic-related exceptional support interventions by the public sector in 2022. As mentioned above, the Recovery and Resilience Fund (RRF) already includes the implementation of 185 projects, with a budget of €8.05 billion. From the fund, €4 billion have been disbursed as an advance of the funds allocated to Greece, while the first tranche of €3.56 billion was also recently disbursed. The first tranche is the expected revenue for the implementation of Greece 2.0 this year. On the side of grants, the budget forecast reaches €3.2 billion. As noted in the macroeconomic scenarios, the implementation of the Recovery Plan is largely independent of developments related to the war and the pandemic, because the relevant procedures are not affected. Support for investment through these channels will therefore depend on the effectiveness of the involved stakeholders, both domestically and at the level of the European Commission.

In the other part of the public sector's support for investment activity, through the PIP, the higher-than-2021 target of the PIP support for this year, which was extended with the supplementary budget by €600 million (a total of €8.4 billion), the launch of the NSRF 2021-2027, and the experience of implementing the programme in the past, lead to the forecast that the expenditure of the PIP will be significantly higher in 2022. It is expected to reach at least €7.5 billion, from €5.8 billion last year (excluding support measures), providing correspondingly greater support to investment activity.

The underperformance of the privatisation programme in 2021, largely due to the pandemic impact, will result in its small contribution to investment activity this year, given the long maturation period required for investment of this scale. However, the recent completion of the concession of Hellinikon, Egnatia Odos, DEPA Infrastructure, and HEDNO creates very significant medium-term prospects for investment, economic activity more broadly, and employment.

As evidenced by trends in previously analysed short-term indicators, building projects continued to expand significantly until the end of 2021, a trend that had transpired since the beginning of last year and has already been reflected through the formation of fixed capital in GDP. Construction activity this year will boost significantly investment in the tourism sector, as already mentioned, including the renovation of properties for Airbnb. Sluggish demand for tourism in some areas due to the war may lead to a postponement of part of such investments. The reduction of ENFIA, on the one hand, removes the uncertainty that existed pending the relevant decisions, and on the other, it facilitates the planning of investment in real estate.

Taking into account the above expected effects, within the new global economic environment shaped by the war in Ukraine, notably the significant growth of credit to businesses, the upward momentum of international tourism, the start of RRF resource utilisation, and the exceptionally high energy cost, which has a negative impact mainly on Industry, investment is expected to expand in 2022 under the baseline scenario of macroeconomic developments by 13 to 15%. If the war ends in the next two months, allowing a gradual improvement in the economic environment throughout the second half of this year, the expansion of investment will be stronger, in the region of 17-20%.

The external sector of the economy is expected to be relatively stronger affected by the war. Section 3.6 highlights the trade relations between Greece and the EU with Russia and Ukraine. The analysis shows a significant import dependency of Greece and the EU on energy goods and specific raw materials (e.g. coal and nickel ores respectively). The EU also has a high import dependency on Ukraine in oils and fats. The export dependence of our country and the EU on Russia is much smaller compared to imports, while it is even lower with Ukraine. Around 2% to 3% of EU27 and Greek exports of services were absorbed by Russia, with a different composition. However, as a fairly large part of the imports of petroleum products are exported after processing in Greece, then if the former declines, the latter will also be negatively affected. At present, the EU has not decided on sanctions on Russia for its energy exports, so there is no supply-side pressure on these European imports. Of course, if the war continues for a long time, as envisaged in the baseline macroeconomic scenario, such measures cannot be ruled out. These measures may be gradual, e.g. a partial import ban, which will escalate as the military conflict continues. In any case, the sharp rise in the prices of energy products will negatively affect their demand, domestically and in the countries where Greece exports fuel. The extent of the effect will depend on the elasticity of demand for these products in each country. As energy goods are among the key consumer products, in the vast majority of countries their demand is inelastic, so the quantity demanded will be affected less than the rise in prices. Such a development will prevent a large contraction in the volume of these domestic imports and their exports. The measures to subsidise the consumption of energy products will also prop up imports.

Table 3.2

Domestic Expenditure and Gross Domestic Product – European Commission estimates (at constant 2015 market prices)

	2019	2020	2021	2022
Annual Percentage Change				
Gross Domestic Product	1.8	-9.0	8.5*	4.9*
Private Consumption	1.8	-7.9	3.3	2.5
Public Consumption	1.7	2.6	4.4	-3.5
Gross Fixed Capital Formation	-3.3	-0.3	15.3	13.4
Exports of Goods and Services	4.9	-21.5	22.4	15.0
Imports of Goods and Services	3.1	-7.6	16.2	6.9
Employment	0.9	-1.2	1.1	1.1
Compensation of Employees per capita	0.6	-0.7	0.0	0.6
Real Unit Labour Cost	-0.5	8.7	-5.6	-4.2
Harmonised Index of Consumer Prices	0.5	-1.3	0.6*	3.1*
Contribution to real GDP growth				
Final Domestic Demand	1.2	-4.9	5.1	2.6
Net Exports	0.6	-5.5	2.0	2.6
Inventories	0.0	1.4	0.0	0.0
As a percentage of GDP				
General Government Balance	1.1	-10.1	-9.9	-3.9
Current Account Balance	-2.4	-7.9	-6.3	-4.0
General Government Gross Debt	180.7	206.3	202.9	196.9
In percentage terms				
Unemployment (% of labour force)	17.3	16.3	15.3	15.0

* Source: European Economic Forecast, winter 2022, European Commission, February 2022

Source: European Economic Forecast, autumn 2021, European Commission, November 2021

The remaining exports of goods will be affected by the expected slowdown in the recovery mainly in the euro area, depending on the duration of the war. However, their trend will remain positive, but weaker than projected at the beginning of the year. On the side of exports of services, the dynamics of tourism remain clearly positive, based on the international arrivals data even after the Russian invasion, but also according to pre-bookings. If economic activity is severely affected by geopolitical developments, the expansion of international tourism will be weaker than pre-war estimates. A variety of effects will be exerted on international transport, as the war seems to affect air transport, but it favours maritime transport, primarily of energy products. As a result of the revised trends in factors affecting exports, an increase of 7-9% is forecast in the baseline forecast scenario. In the alternative scenario, the rise will be stronger, due to greater recovery of international trade from the assumed end of the war in the second quarter (11-13%).

The rise will be mitigated by the sharp escalation of energy and other commodity prices, mainly in the last quarter of 2021 and the first quarter of 2022. Thereafter, they are expected to gradually weaken, which in the case of the alternative scenario for the new year may lead to a deflation in the fourth quarter. Taking into account the mostly positive trends in export demand factors, total exports are estimated to have increased in 2021 by about 19-21%. Their growth in 2022 will take place at a slightly milder pace in the baseline scenario, in the region of 12-14%. If there is a resurgence of the pandemic and an expansion of measures, the rise in the new year will be slightly weaker than in the baseline scenario, in the area of 8-10%.

While the imports of energy products, as well as some raw materials, will be affected by their strongly higher international prices, the weakening of demand is expected to be milder among the remaining product categories, as private consumption and investment will expand. That said, domestic demand for travel services is anticipated to take a stronger hit due to the concerns at the beginning of this year about the new variant and the much higher transport costs due to the war, which has made international tourism a luxury item. Taking into account the above factors, it is projected that imports will expand by 6% to 8% this year under the baseline scenario, with their expansion higher under the alternative scenario (10-12%).

Table 3.3

Comparison of forecasts for selected economic indicators for the years 2021 – 2022 (at constant market prices, annual % changes)

	MinFin		EU		IOBE			IMF		OECD	
	2021	2022	2021	2022	2021	2022**	2022***	2021	2022	2021	2022
GDP	6.9	4.5	8.5*	4.9*	9.0-9.5	2.5-3.0	3.5-4.0	6.5	4.6	6.7	4.8
Private Consumption	3.3	3.0	3.3	2.5	5.5-6.0	1.5 - 2.5	3.0 - 4.0	:	:	2.1	4.4
Public Consumption	4.1	-2.8	4.4	-3.5	5.5-6.0	-1.5 - -2.5	-3.5 - -4.5	:	:	4.6	-2.1
Gross Fixed Capital Formation	11.7	21.9	15.3	13.4	10-12	13 -15	17-20	:	:	14.0	17.3
Exports	14.1	11.1	16.2	15.0	19-21	7-9	11-13	:	:	4.1	13.0
Imports	6.6	8.9	8.1	6.9	14-16	6-8	10–12	:	:	1.7	8.1
Harmonised Index of Consumer Prices (%)	0.6	0.8	0.6*	3.1*	1.2	7.0 – 7.8	6.2– 6.8	-0.1	0.4	0.4	3.1
Unemployment (% of labour force)	15.9	14.2	15.3	15.0	14.9	13.5	12.8-13.0	15.8	14.6	14.6	12.9
General Government Balance (% GDP)	-9.6	-4.0	-9.9	-3.9	:	:	:	-10.2	-4.3	-9.6	-4.0
Current Account Balance (% GDP)	:	:	-6.3	-4.0	:	:	:	-7.4	-5.1	-7.2	-6.7

* European Economic Forecast, winter 2022, European Commission, February 2022
** IOBE baseline scenario, *** IOBE alternative scenario
Sources: Budget Report 2022, Ministry of Finance, November 2021 – European Economic Forecast, autumn 2021, European Commission, November 2021 - The Greek Economy 01/22, IOBE, April 2022 – World Economic Outlook, IMF, October 2021 - Fiscal Monitor, IMF, October 2021 - Economic Outlook 110, OECD, December 2021

From the estimation process of the trends in GDP components in 2022, which were made on the basis of different scenarios mostly for the developments and effects of the war in Ukraine, under the baseline scenario of macroeconomic developments, in which it will continue beyond the second quarter, with a strong impact on the euro area's recovery, primarily through energy prices, as well as noticeable effects on tourism, the Greek economy will grow this year at a rate in the region of 2.5-3.0%. In the alternative scenario of macroeconomic developments, the end of the war in the second quarter will limit its negative effects on economic activity domestically and internationally, while allowing for a greater reopening of supply chains and a resurgence of international trade. In these better conditions, the Greek economy can grow this year at a rate of 3.5-4.0%. The revised forecast incorporates the effects of the downward revision of GDP growth for the second and third quarters of 2021.

Regarding employment and unemployment trends, the most decisive drivers came from the health crisis developments last year. As the effects of this factor on economic activity are not expected to fluctuate significantly in 2022, the war in Ukraine, through its effects on inflation and exports, the further strengthening of tourism, and investment will have the most significant impact on the labour market.

In particular, as domestic consumer demand will strengthen less than expected before the current geopolitical developments, due to exceptionally high inflation, the operation of businesses in retail trade, tourism and food services, with few pandemic restrictions in the first four months of this year and then no restrictions thereafter, will result in a smaller increase in their employment compared to the one anticipated before the war. Subsequently, the secondary effects on employment from the demand for new workers will also be smaller. In contrast to these negative developments, additional interventions to contain the energy crisis (subsidy for the consumption of energy goods, aid for people with disabilities and beneficiaries of low pensions, etc.) will play a role, with their impact depending on their duration or further expansion (e.g. reduction of VAT on food). Both effects on consumer demand and employment, from the war and countervailing measures, will be milder if hostilities end relatively soon, within the second quarter (under the alternative macroeconomic scenario).

The pressures from the war on the eurozone recovery will, as mentioned above, have an impact on domestic exports, mainly of goods. By contrast, the steady positive dynamics of the exports of goods in recent years, which have led to successive historical peaks, will to some extent stimulate employment, both directly and indirectly, through industrial investment. The negative effects on tourism are expected to be mild, with international traffic at major airports remaining strong in March and summer bookings still at high levels. Combined with the significant increase in international tourism and revenue last year, a strong expansion of jobs in the sector is expected this year.

The increase of investment in export-oriented sectors of industry and tourism, the use of the recovery fund resources, and the start of investment in significant privatisation deals, such as in Hellinikon, will significantly boost job creation this year, among other sectors, in Construction.

The public sector will boosting domestic employment in 2022. About 20.6k recruitments and appointments have been planned for this year, under the "one recruitment for each withdrawal" rule, based on departures not only in 2021, but also in previous years.

One development whose impact on employment is difficult to predict is the change in the minimum wage since 1 May. Its effects depend on its extent. Since it has been announced to increase by 6% to 8%, enterprises in sectors where a large proportion of workers are paid at the minimum wage, e.g. with a high share of unskilled labour, will have to cope with both the current strong increase in energy costs and the increase in their wage costs. In cases where this is not possible, at least temporarily, during the energy crisis, employment schemes other than full employment, e.g. part-time work, may be selected instead.

Taking into account the above effects on the labour market, the estimate for the unemployment rate in the base scenario is in the region of 13.5%, while in the alternative scenario in the region of 12.8-13.0%.

Consumer prices are most affected by the turmoil in the world economy as a result of the war. Prices of energy products are expected to rise significantly, for the second year, in both scenarios of macroeconomic forecasts, despite the freeing of strategic reserves by the United States and other members of the International Energy Agency. Despite geopolitical developments, the global economy will continue to recover this year, which will expand oil demand. As mentioned during the presentation of scenario assumptions, in the base scenario the oil price rise this year will be 30-35%, while in the alternative scenario it is between 20-25%. The measures to subsidise electricity, gas and fuel consumption will partially mitigate the strong inflationary effect of energy product prices.

In addition to energy consumption subsidies, other support measures — aid to vulnerable social groups (disabled, low-pension beneficiaries, minimum income beneficiaries, etc.) to contain the effects of the energy crisis will prevent a significant weakening of consumer demand. In addition, they will, depending on the duration of their implementation, replenish to some extent the extensive support measures against the pandemic last year, which will be much smaller this year. The reduction of property taxation and the increase in the minimum wage from the beginning of May will boost disposable income. In addition to these support interventions and administrative decisions, household income and domestic consumption will be stimulated by stronger activity and employment growth in sectors affected by lockdowns in previous years and in which a significant part of domestic consumption takes place (Retail Trade, Food Services, Tourism). Similar developments will be triggered by job creation in export-oriented activities, mainly in Industry, Tourism, and Transport, as well as by more investment. These trends in consumption and investment will be milder in the baseline scenario of macroeconomic developments, due to the war uncertainty and stronger disruptions in economic activity.

As regards the impact of indirect taxation interventions, the VAT reduction applicable since June last year on specific goods and services was extended until the first half of 2022. However, as one year has passed since its implementation, no further substantial effect on prices is expected. The reduction of VAT on certain other goods and services (gyms, dance schools, etc.) will have a limited containing effect on rising prices, as it concerns a small part of consumer spending. The impact of the reduction in mobile telephony subscriber levy is expected to be slightly stronger. First, the reduction in VAT on fertilisers and animal feed from 13% to 6% and, second, the return of the excise duty on motor oil for farmers, measures decided before the war in Ukraine, are expected to reflect in food prices in the near future.

Taking into account the above possible trends in the main components of the domestic Consumer Price Index, as well as the positive base effect on prices in the first quarter of 2022, due to the average deflation of 1.6% a year earlier, under the baseline scenario of macroeconomic developments for 2022, the Consumer Price Index is projected to increase by 7.0% to 7.8%, mainly from the particularly strong rise in prices in energy products, but also the further strengthening of domestic demand. If developments under the alternative scenario take place, the first of these effects would be milder and the second slightly stronger, resulting in average inflation of 6.2% to 6.8%.

3.2 Developments and Prospects in Key Sectors of the Economy

- Industrial production boost of 2.2% in the first two months of 2022, after an increase of 3.9% in 2021
- Output growth in Construction by 6.2% in Greece in 2021, against 9.6% losses in 2020
- Increase of 11.9% in retail volume in 2021 — increase in January 2022 by 8.9%. Improvement in expectations in the first quarter of 2022.
- Turnover growth in twelve of the thirteen sub-sectors of Services in 2021.

Industry

Overall in 2021, the industrial production index increased by 10.0%, against a decrease of 1.9% in 2020. In the first two months of 2022, the industrial production index increased by 2.2%, after a stronger increase of 3.9% in the same period of 2021.

In the same period of 2022, the industrial producer price index increased by 32.6% against a decrease of 2.7% in the first two months of 2021. The increase is due to both higher prices of exported products (+33.7%, against a decline of 1.7% last year) and higher prices of products sold domestically (+30.3% against a decrease of 5.7% in 2021).

Similarly, industry turnover in January 2022 (the month with the latest data available) increased by 35.4%, against losses of 12.3% in January 2022. These increases are due to the rapid recovery of the global economy that started in the second quarter of 2021. At the end of this section, we analyse the importance of energy costs for sectors of the Greek economy (Box 3.2).

In the euro area, industrial output increased by 7.8% in 2021, compensating for the 2020 losses (-7.4%). In the first month of 2022, production fell by 0.7% against an increase of 1.7% in January 2021.

In the main sectors of Greek Industry, output strengthened in Manufacturing in the first two months of 2022 (+5.2% from +2.1% a year ago) and Water Supply (+0.9% against -0.8%). By contrast, production of Mining-Quarrying fell sharply (-16.0% against +0.7%), as did the supply of electricity (-5.4% against +10.9% in 2021).

In the branches of Mining-Quarrying, production strongly fell in the mining of metal ores (-34.2% against +5.4% last year), and in other mines and quarries (-4.8% against -4.2%). Production growth, but significantly weaker than last year, was recorded in the mining of coal and lignite (0.4% against 73.9%).

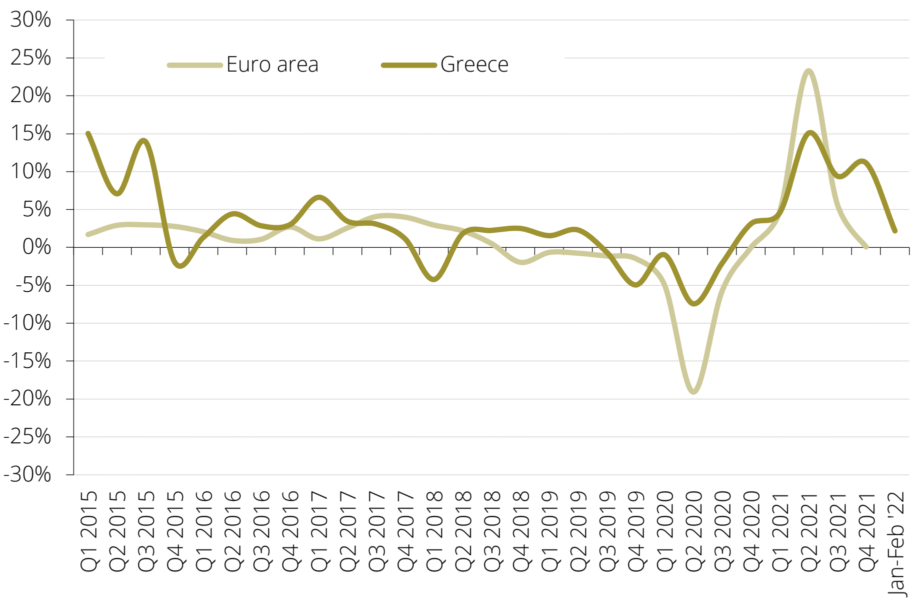
Among the key branches of Manufacturing, production of pharmaceuticals increased by 11.7% after an increase of 14.5% in 2021. Food production (+4.4% against a decrease of 1.8% in the first two months of 2021) and the production of basic metals (an increase of 4.3%, after an increase of 0.8% a year ago) were also on the rise.

Most Greek industrial sectors posted output growth in the first two months of 2022. More specifically, apparel manufacturing increased by 36.2%, against a decrease of 18.9% in 2020, with a similar boost recorded in the leather industry (+32.1% compared to 56.6% decline a year ago). Production increased strongly in the manufacture of motor vehicles (+39.1% against -12.7%), furniture (+28.9% from +19.4%), electrical equipment (+26.4% from +14.0%) and less strongly in the manufacture of machinery and equipment (17.5% instead of -5.8%). In only three branches output declined year on year - in the production of other transport equipment (-10.9% against an increase of 11.9%), tobacco products (-6.5% instead of + 3.3%) and non-metallic minerals (-2.0% instead of + 15.1%).

Output increased in four of the five main industrial product groups. In detail, production increased mainly in Durable Consumer Goods (+19.9% against -14.1%), and much less in Non-Durable Consumer Goods (5.7% from +2.8%), Capital Goods (+3.7% after an increase of 3.4%) and Intermediate Goods (3.7% from 3.4%). Output in Energy declined by 2.7%, against an increase of 7.4% in the same period of 2021.

Figure 3.2

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



Boost of industrial production by 2.2% in the first two months of 2022 after an increase of 3.9% in 2021

Sources: ELSTAT, Eurostat

Construction

In the last quarter of 2021, the production index in Construction increased by 7.1%, against a decline of 1.0% in the same period of 2020. Overall in 2021, the index increased by 6.2%, partly offsetting losses by 9.6% in 2020.

In the individual construction activities in the same period, the construction of buildings increased by 16.5% against a decline of 5.8% in 2020. In Civil Engineering, the index declined by 0.9%, after a much stronger decrease in 2020 (-11.8%).

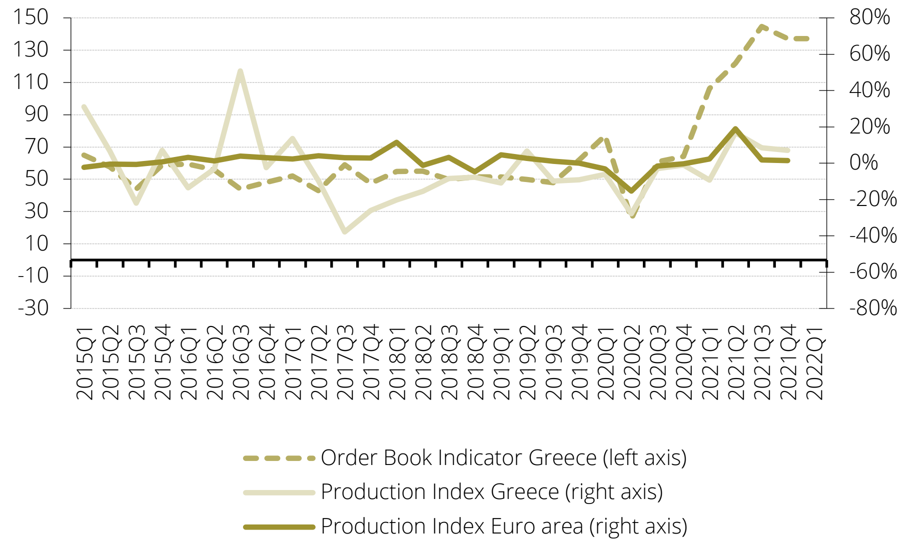
During the same period in the euro area, the output index in Construction increased by 5.7%, covering the 2020 retreat (-5.1%).

Building activity data for the whole of 2021 reveal an increase of 26.9% in terms of the number of permits, more than three times the increase in 2020 (+8.9%). A stronger increase compared to last year was recorded both in terms of surface (+47.4% instead of +8.9%) and volume (+46.1% then +5.9%).

Figure 3.3

Production Index in Construction and Building Activity Index

Construction production growth in Greece by 6.2% in 2021, against 9.6% contraction in 2020



Source: ELSTAT

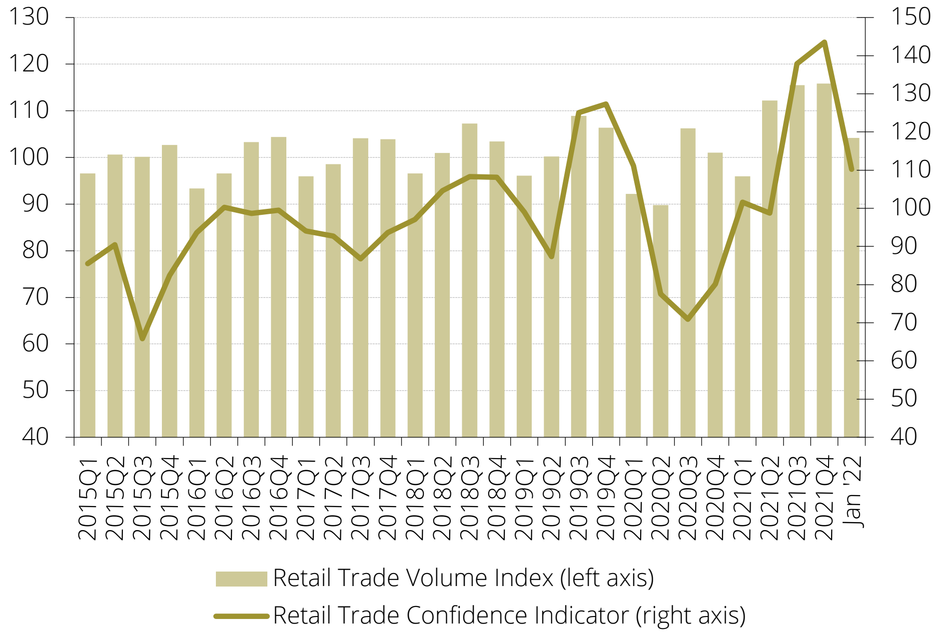
Retail Trade

The volume index in Retail Trade increased overall in 2021 by 11.9%, clearly exceeding the decrease by 5.4% a year earlier. The volume of activity strengthened in all 8 subsectors. In particular, the strongest growth occurred in Clothing and Footwear, where sales rose by 35.5% against a 25.8% decrease in 2020. Next came Furniture and Electrical Equipment (+25.2% against -6.2%), Books and Stationery (23.9% against 7.2% decline) and Pharmaceutical Products, where activity increased by 22.0%, after a rise of 16.3% in 2020. Milder increase was recorded in Food, Beverages and Tobacco products (+10.6%, against a 7.7% reduction in 2021), Department stores (+4.5% against -15.2%), Fuel and Lubricants (4.1% compared to -15.2% last year) and Supermarkets (+2.0%, up from 5.3% in 2020).

In January 2022, the volume index increased by 8.9% against a decrease of 2.5% in the same month of 2020.

Figure 3.4

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



An 11.9% increase in retail trade volume in 2021 and a boost of 8.9% in January 2022. Stronger expectations in the first quarter of 2022.

Sources: ELSTAT, IOBE

Expectations in the retail trade sector in the first quarter of 2022, as reflected in the leading indicators of the IOBE Business and Consumer Surveys, strengthened compared to the same period a year earlier. The index rose by 8.6 points, much milder than the decline of 24.9 points recorded a year earlier.

At the level of specific activities, expectations in the first quarter of 2022 deteriorated only in Food — Beverages — Tobacco (-44.4 points after a decrease of 9.8 points in 2021). By contrast, expectations increased in Department Stores (+31.7 against -73.5 a year ago) and in Textiles — Clothing — Footwear (+25.1 points against a decrease of 23.9 points in the previous year). Next came Household appliances (+21.1 against falling by 24.2 points) and Vehicles — Spare Parts (+18.8 against -21.8 points).

Specifically for Vehicles — Parts, the index stood at 114.7 points in the first quarter of 2022, compared with 95.9 points in the corresponding period of 2021, clearly below the 2019 level (133.7 points). The current sales balance improved against its very negative level in 2021, due to the generalised lockdown, and moved to -26 points, compared to -46 points, with an increase in the percentage of those who estimate increased sales, and a decline in companies reporting reduced sales. On the stock side, the balance reached a negative record of -45 points, with an estimate of a significant decline in stocks due to supply chain problems worldwide. The balance of orders returned to positive territory and stood on average at 8 points last year, compared with -9 points in 2021, with an increase in those expecting orders to expand in the coming period. In the balance for sales expectations, estimates were stagnant, from a similar increase in the percentage of firms expecting growth and of those expecting a decline in sales. On the employment side, strong stabilisation signs prevail, with an increase in the share of those expecting jobs to grow. The price expectations post historic high records, with the percentage of those expecting vehicle price increases at 75%, while the share of those expecting stability declined to 25%.

Table 3.4

Volume Index in Retail Trade, annual changes

Category of Retail Trade Stores	Volume Index (2010=100)				
	2019	2020	2021	Change 2020/2019	Change 2021/2020
Overall Index	102.9	97.3	108.9	-5.4%	11.9%
Overall Index (excluding automotive fuels and lubricants)	104.0	101.3	113.4	-2.6%	11.9%
Store Categories					
Supermarkets	106.0	111.6	113.9	5.3%	2.0%
Department Stores	94.6	85.0	88.8	-10.2%	4.5%
Automotive Fuels	94.9	80.5	83.9	-15.2%	4.1%
Food – Drink – Tobacco	86.3	79.6	88.1	-7.7%	10.6%
Pharmaceuticals – Cosmetics	100.2	116.5	142.1	16.3%	22.0%
Clothing – Footwear	110.4	81.9	110.9	-25.8%	35.5%
Furniture – Electric Equipment – H. Appliances	117.6	110.3	138.1	-6.2%	25.2%
Books – Stationary	125.3	116.3	144.0	-7.2%	23.9%

Source: ELSTAT

Table 3.5

Business Expectations Indices in Retail Trade (1996-2006=100)

	Q1 2020	Q1 2021	Q1 2022	Change 2021/2020	Change 2022/2021
Food-Drinks-Tobacco	109.9	100.1	55.7	-9.8	-44.4
Textiles - Clothing – Footwear	71.5	47.6	72.7	-23.9	25.1
Household Appliances	105.9	81.7	102.8	-24.2	21.1
Vehicles-Spare Parts	117.7	95.9	114.7	-21.8	18.8
Department Stores	136.3	62.8	94.5	-73.5	31.7
Total Retail Trade	115.1	90.2	98.8	-24.9	8.6

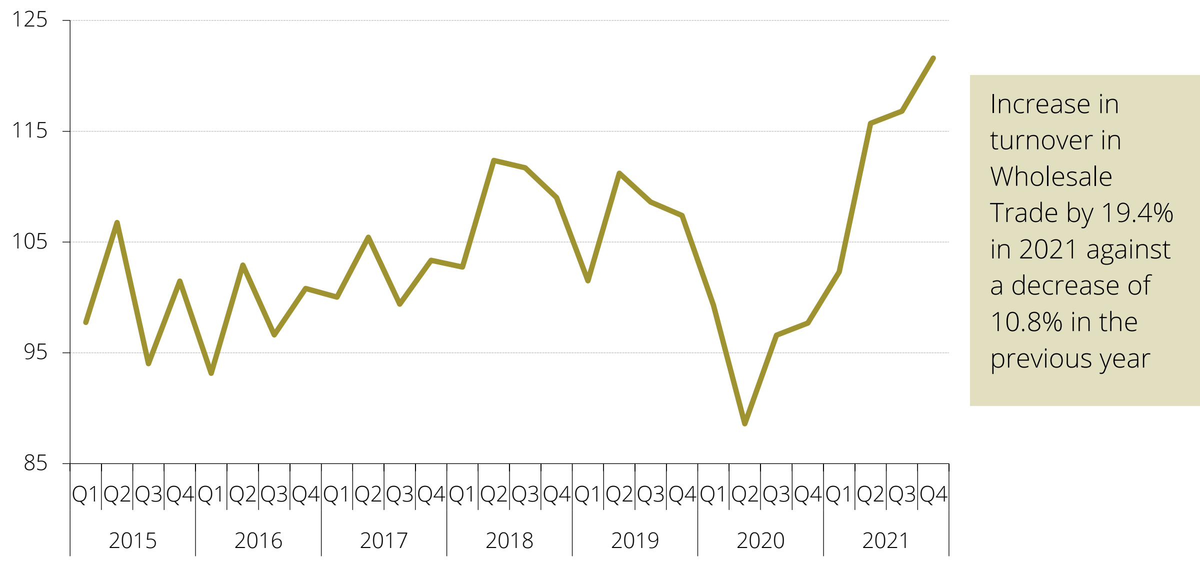
Source: IOBE

Wholesale Trade

In the last quarter of 2021, the wholesale turnover index increased sharply, by 24.5%, against a decline in the same period of 2020 by 9.0%. Overall in 2021, the index increased at an average rate of 19.4%, offsetting the decrease by 10.8% in 2020.

Figure 3.5

Turnover Index in Wholesale Trade



Source: ELSTAT

Services

In 2021, turnover in services declined in only one of the 13 branches compared to 2020.

Table 3.6

Turnover Index in Services (2010=100)

Branch of service activities	2020	2021
Publishing activities	-7.6%	9.0%
Architects and Engineers	4.1%	20.7%
Data and Information service activities	12.0%	26.7%
Security and investigation activities	-8.9%	6.8%
Telecommunications	-2.6%	7.4%
Advertising and market research	-8.6%	12.0%
Postal and courier activities	5.4%	-0.9%
Computer programming, consultancy and related activities	0.3%	12.5%
Other professional, scientific and technical activities	-12.3%	10.1%
Legal, accounting and management consultancy activities	-2.9%	13.7%
Office administrative, office support and other business support activities	-0.2%	12.7%
Employment activities	4.4%	10.2%

Source: ELSTAT

The largest increase occurred in data processing and information service activities (+26.7% against +12.0% in 2020), followed by architectural and engineering activities (+20.7%, after a milder increase of 4.1% last year) and legal and accounting services (+13.7% from -2.9% in 2020). Turnover in office administrative services increased by 12.7% against a decline of 2.7% last year, while activity in advertising and research services increased by 12.0%, more than in 2020 (+8.6%). This is followed by computer programming services (12.5% against +0.3% last year), employment-related activities (+10.2% against +4.4%) and publishing activities (9.0% against -7.6%). Finally, turnover in telecommunications services increased by 7.4% (against a 2.6% decline). By contrast, postal and courier activities had a slight drop in turnover of 0.9%. In the first year of the pandemic, turnover in these services had increased by 5.4%.

According to recent trends in leading indicators from the IOBE business and consumer surveys for the first quarter of 2022, expectations improved in all four sub-sectors of Services. As a result, the sector's overall index increased by 44.8 points, against a decrease of 35.6 points a year ago.

The branch index improved in Hotels — Restaurants (+49.1 points against -42.0 points in 2020), followed by business services (+ 43.1 points against -34.8 points ago), IT services (+ 20.4 points against -4.5 in 2020), and financial intermediaries (+11.8 points against -7.4 points in 2020).

Table 3.7

Business Sentiment Indicators in Services (2000-2010=100)

	Q1 2020	Q1 2021	Q1 2022	Change % 21-'20	Change % 22-'21	Change 2021/2020	Change 2022/2021
Hotels – Restaurants – Travel Agencies	99.3	57.3	106.4	-42.3%	85.7%	-42	49.1
Financial Intermediation	123	115.6	127.4	-6.0%	10.2%	-7.4	11.8
Other Business Services	110	75.3	118.4	-31.5%	57.2%	-34.7	43.1
Information Services	96.2	91.7	112.1	-4.7%	22.3%	-4.5	20.4
Total Services	**106.5**	**70.9**	**115.7**	-33.4%	63.2%	-35.6	44.8

Figure 3.6

Turnover Index in Telecommunications (branch 61)

Telecoms strengthened in 2021 by 7.7% against 1.9% contraction in 2020

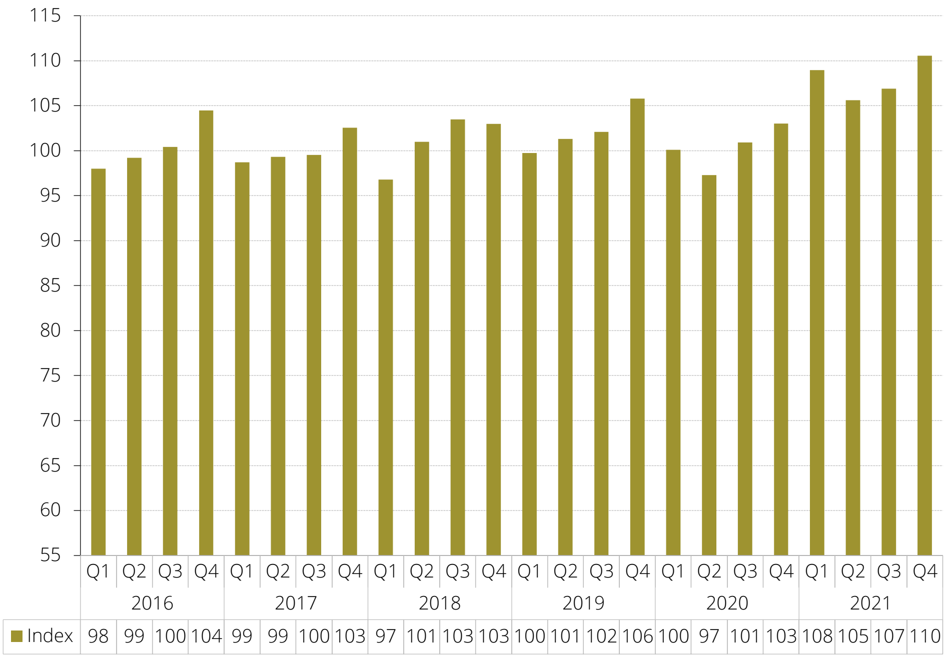
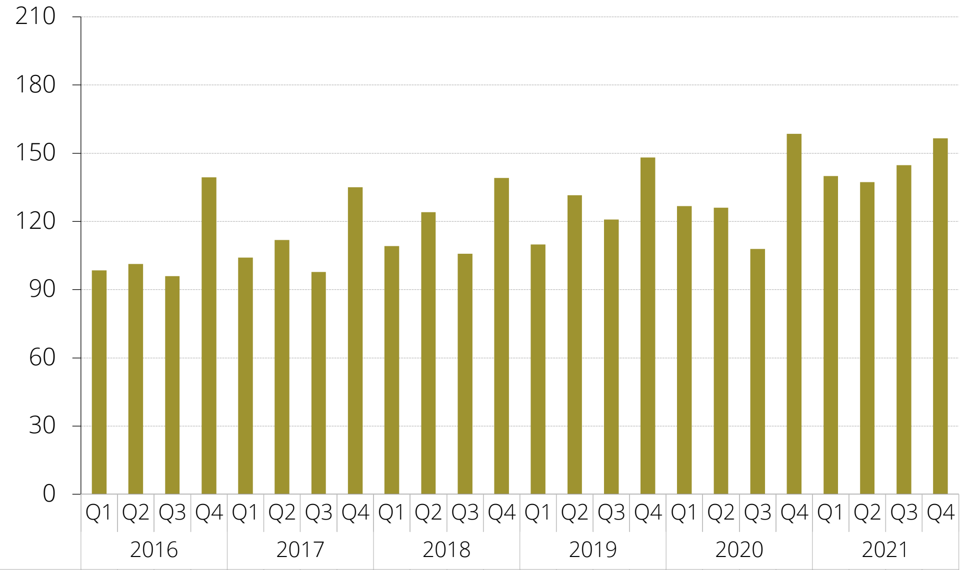


Figure 3.7

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



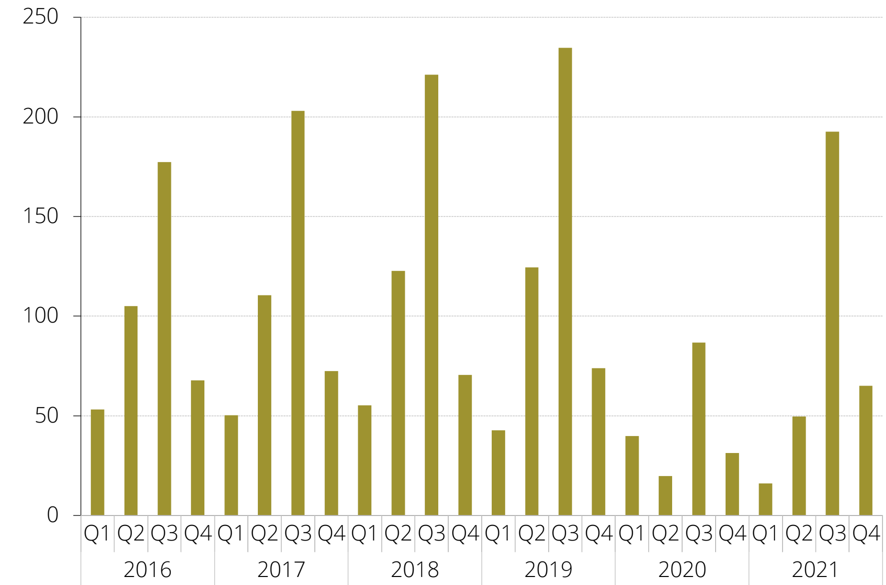
	2016				2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Index	98	101	96	139	104	112	98	135	109	124	106	139	110	132	121	148	127	126	108	159	140	137	145	156

Higher turnover by 11.4% in IT services in 2021, after a milder increase of 1.8% in 2020

Source: ELSTAT

Figure 3.8

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



	2016				2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Index	53	10	17	68	50	11	20	72	55	12	22	71	43	12	23	74	40	20	87	31	16	49	19	65

Recovery of tourism activity in 2021 with an increase of 82.1% compared to 2020 (-62.7%)

Source: ELSTAT

Box 3.2 The significance of energy costs for sectors of the Greek economy

Energy products, such as fuels and electricity, are important inputs into the production process. For many sectors of the Greek economy, spending on the supply of petroleum products, natural gas, and electricity constitutes a large part of the total expenditure on inputs. Often the expenditure on these energy goods is high compared to both the production value and the value added of the sector. In addition, many products used as inputs in the production process, such as base metals, cement, chemicals, and many others, require large quantities of energy to be produced. These products are not energy goods, but their production is exposed to changes in the cost of energy goods. The prices of these products are therefore particularly sensitive to potential price increases in energy products. Similarly, many other products are also, to a lesser extent, exposed to changes in energy costs.

By extending the relations between inputs and prices of energy products to earlier stages of the production process, it becomes apparent that the production process of a sector may be exposed to changes in energy costs, even if it does not directly use a significant amount of energy. Thus, exposure to energy products may arise indirectly, through the use of non-energy inputs whose production is highly energy intensive. In order to have a comprehensive picture of the role of energy costs in the production of an industry, it is necessary to consider and take into account the indirect effects of energy costs. The importance of such an analysis is more prominent under the current conditions of sharply rising energy prices due to the strong global recovery in 2021 and the war in Ukraine, which threatens Russia's energy supply chains.

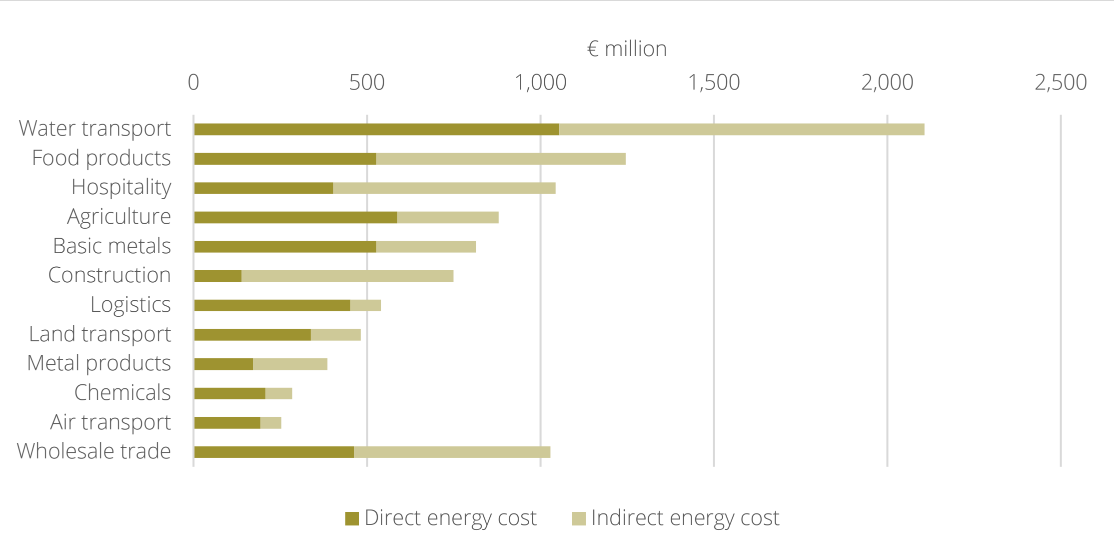
The indirect exposure of the production process of the sectors of the Greek economy to the cost of energy goods can be quantified by economic analysis in the context of an appropriate macroeconomic input-output model (Leontief price model). Under such a model, direct and indirect energy costs were estimated for a set of selected sectors of the Greek economy, using the latest available statistics on the structure of the Greek economy. Direct energy costs are the costs of a sector for oil, gas and electricity, whereas indirect energy costs refer to the part of the expenditure on other inputs corresponding to the energy content of those inputs. The following charts show the direct and indirect energy costs, both compared to the total expenditure of each industry on inputs (Figure 3.9A) and its gross production value (Figure 3.9B).

The results of the analysis show that shipping activities, agriculture, and the production of base metals have high direct energy costs in absolute terms. However, taking into account the indirect exposure of production activities to energy costs, it appears that other activities, such as construction, processed food manufacturing and accommodation-food services are particularly exposed — for these activities the indirect energy costs are higher than the direct (Figure 3.9A).

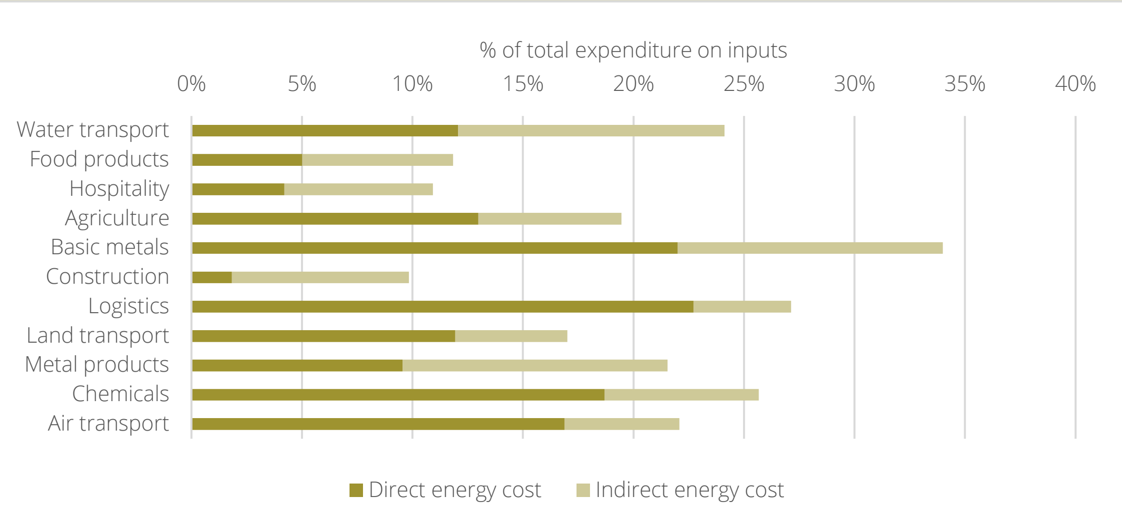
In addition to energy expenditure in absolute terms, the level of energy expenditure as a percentage of the industry's total expenditure on inputs is of particular importance for an industry's sensitivity to energy price fluctuations. In sectors such as Logistics, Manufacture of Basic Metals, and Chemicals, high sensitivity is expected, as the direct expenditure of these sectors on energy inputs already forms a large part (about 1/5) of their total spending on inputs. However, taking into account indirect energy costs, it emerges that other sectors such as Shipping, Air Transport, the Manufacture of Metal Products, and Agriculture have an equally significant exposure (Figure 3.9B).

Figure 3.9 Expenditure on energy products in sectors of the Greek economy

A. In absolute terms (€ billion)



B. As a percentage of the total expenditure on inputs



Source: IOBE analysis, Eurostat input-output tables

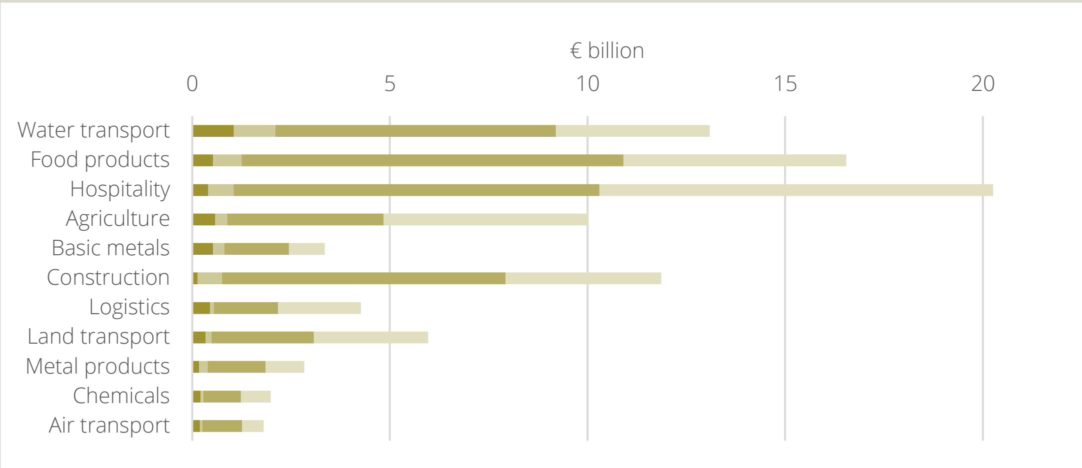
It is also important to compare the energy costs, direct and indirect, of an industry with the value added that it generates. Value added is a measure of the output value of a sector, excluding the value of the inputs it purchases. In many industries, such as the manufacture of basic metals, shipping, air transport, production of metal products, chemicals and logistics, the total energy costs (direct and indirect) are high, compared to the value added of the sector (Figure 3.10A). In these sectors, potential rise in energy cost is very likely to lead to a significant contraction in value added, either through a decrease in the total production value, or from a decline in profitability, or a combination of such developments.

The results of the analysis show that the most exposed sectors to changes in energy costs are the manufacture of basic metals, the manufacture of metal products and shipping. It is important to note that construction and accommodation - food services, sectors with an important role in the

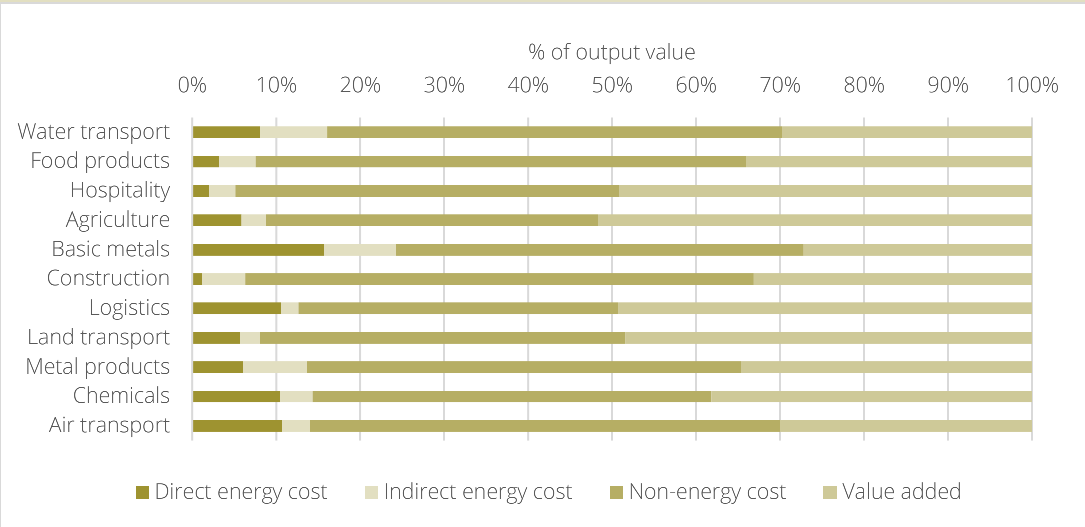
Greek economy, while they do not have much direct exposure to energy costs, therefore, in a first approach, appear to be safe against the price increases of energy goods, have high indirect exposure to energy costs, resulting in higher overall exposure to changes in the prices of energy products. That said, even after taking into account indirect effects, both construction and hotels-food services still have significantly lower exposure to energy costs, compared to industries such as base metals and shipping.

Figure 3.10 Cost structure and value added in sectors of the Greek economy

A. In absolute terms (€ billion)



B. As a percentage of gross production value



Source: IOBE analysis, Eurostat input-output tables

3.3 Export Performance of the Greek Economy

- Increase in the exports of goods in 2021, at a rate of 29.2%. Milder growth in exports excluding petroleum products (+19.6%)
- Trade deficit increase of 35.7% compared to 2020, to €23.3 billion.
- Among the product categories, the largest increase occurred in fuel exports and raw materials.
- Growth in demand mainly from euro area countries (+19.7% or +€2.6 billion), the Middle East & North Africa (+60.7% or €2.0 billion) and Asia (+29.9% or €661.6 million).

Exports of goods stood at €39.3 billion in 2021, compared with €30.4 billion in 2020, an increase of 29.2%. Excluding exports of petroleum and ships, the remaining exports rose by 19.6% to €28.6 billion, from €24.0 billion before. Imports increased by 31.5% in 2021 to €62.6 billion, from €47.6 billion a year earlier. As a result of the above trends in the main components of the external balance of goods, the trade deficit was €6.1 billion higher than in 2020 (+35.7%), at €23.3 billion, from €17.2 billion. Subsequently, the value of exports of goods of the Greek economy in 2021 corresponded to 62.8% of its imports, while a year earlier it had reached 63.9%.

Figure 3.11

Total export activity and exports of goods except for fuels and ships (current prices, % change)

Exports excluding petroleum products and ships stood at €28.6 billion in 2021, 19.6% higher than in 2020.

Source: ELSTAT. Data processing: IOBE

In detail, exports of agricultural products increased by 12.1% in 2021, to €7.4 billion, from €6.6 billion in 2020, while fuel exports saw the largest increase, by 67.2%, to €11.3 billion, from €6.7 billion in 2020. Exports of these two categories accounted for 47.4% of domestic exports in 2021, up from 43.8% a year earlier. The increase in agricultural products came mainly from a 26.6% increase in demand for oils of animal or plant origin, the value of which stood at €714.0 million, from €564.0 million in 2020, while their share of total exports stood at 1.8% in 2021 from 1.9% in 2020. In the Food-Living Animals category, which accounts for about 78.0% of exports of agricultural products, exports increased by 10.0% to €5.8 billion, from €5.2 billion. In beverages and tobacco products, representing 12.3% of exports of agricultural products, demand in 2021 stood at €909.5 million, 15.5% higher than in 2020 (€787.3 million).

Exports of industrial products considerably strengthened in 2021 (+18.8%), with their value reaching €18.3 billion, up from €15.4 billion in 2020. This development was mainly driven by an increase in exports of industrial goods sorted by raw material by 26.9%, from €4.8 billion to €6.1 billion. International demand also increased for chemicals and related products by 11.5%, with their value at €5.6 billion. In addition, exports of machinery and transport equipment increased by 17.6% (to €3.8 billion from €3.2 billion), while exports of miscellaneous industrial articles increased by +19.0%, €2.8 billion.

Finally, exports of raw materials increased by 48.6% to €1.9 billion, from €1.3 billion a year earlier, while exports of non-classified goods and transactions increased by 15.4%, from €460.1 million in 2020 to €531.2 million a year later.

In terms of the trends by geographical area, exports to the euro area increased by 19.7% last year, approaching €15.5 billion, from €13.0 billion in the same period of 2020, with their share taking up 39.5% of total exports of Greek products last year. The EU-27 saw an increase of 20.3% or €3.5 billion, with exports to this region reaching €20.8 billion, from €17.3 billion a year earlier. Among the euro area countries that absorb most Greek exports, there was a significant expansion to Germany by 20.8%, from €3.2 billion to €3.9 billion, and then to France by 4.1%, from €1.78 billion to €1.85 billion. Exports of goods to the country's major trading partner, Italy, increased significantly by 20.8%, reaching €3.9 million in 2021 from €3.2 billion in 2020.

Among the other countries of the European Union, to which total exports increased by 21.9% or €955.1 million, reaching €5.3 billion, Bulgaria continued to be the main export destination, with an increase compared to 2020 by 22.9% or €251.6 million. Positive developments occurred in two other countries from this group which absorb a significant share of Greek exports, Romania and Poland, where exports increased by 22.9% or €251.6 million (at €1.4 billion) and by 26.5% or €152.1 million (€725.2 million) respectively.

Table 3.8

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

Product	Value		% Change	% Share	
	2021	2020	21/20	2021	2020
AGRICULTURAL PRODUCTS	7,388.0	6,591.7	12.1%	18.8%	21.7%
Food and Live Animals	5,764.4	5,240.4	10.0%	14.7%	17.2%
Beverages and Tobacco	909.5	787.3	15.5%	2.3%	2.6%
Animal and vegetable oils and fats	714.0	564.0	26.6%	1.8%	1.9%
RAW MATERIALS	1,861.3	1,252.2	48.6%	4.7%	4.1%
Non-edible Raw Materials excluding Fuels	1,861.3	1,252.2	48.6%	4.7%	4.1%
FUELS	11,253.3	6,731.6	67.2%	28.6%	22.1%
Mineral fuels, lubricants, etc	11,253.3	6,731.6	67.2%	28.6%	22.1%
INDUSTRIAL PRODUCTS	18,266.3	15,382.0	18.8%	46.5%	50.6%
Chemicals and Related Products	5,574.6	5,000.7	11.5%	14.2%	16.4%
Manufactured goods classified chiefly by raw material	6,115.1	4,817.5	26.9%	15.6%	15.8%
Machinery and transport equipment	3,759.6	3,196.6	17.6%	9.6%	10.5%
Miscellaneous manufactured articles	2,817.1	2,367.1	19.0%	7.2%	7.8%
Other and transactions not classified by category	531.2	460.1	15.4%	1.4%	1.5%
TOTAL EXPORTS	39,300.0	30,417.5	29.2%	100.0%	100.0%

* Provisional Data

Source: ELSTAT, Panhellenic Exporters Association

The demand for Greek exports in non-EU Europe increased by 37.0%, from €5.0 billion a year ago to €5.3 billion in 2021. In particular, exports to Turkey expanded by 53.9%, from €1.3 billion to €2.0 billion, while exports to the United Kingdom increased by 10.1%, with their value rising from €1.2 billion in 2020 to €1.3 billion a year later.

Exports to North American countries rose sharply, by 35.0%, from €1.4 billion in 2020 to €1.9 billion a year later, mainly due to an increase in exports to the US by 41.4%, from €1.1 billion in 2020 to €1.6 billion last year, and to Canada, by 18.7% or €31.1 million.

Exports to the Middle East and North Africa increased rapidly, by 60.7%, to €5.3 billion from €3.3 billion, mainly due to an increase in exports to Libya (+58.8%), where exports stood at €1.0 billion in 2021, compared to €633.6 million a year earlier, and to Lebanon (+79.1%), where exports rose by €516.9 million in 2021 compared to 2020. Also, exports to another major export destination in North Africa, Tunisia, expanded by 178.0% to €501.8 million, while to the United Arab Emirates they increased by 53.0%, to €362.9 million. Exports to Saudi Arabia rose by 105.2% to €613.9 million.

The flow of exports of Greek products to Oceania increased by 9.9%, with their value in 2021 amounting to €242.8 million from €221.6 million a year earlier. The increase came from a similar trend in Australia, where exports grew 6.1% to €212.7 million last year. Similarly, there was an increase in New Zealand (+43.2%).

Exports to Central - Latin American markets increased by 49.0% in 2021, with a value of €307.3 million from €207.8 million in 2020. The growth in exports to the countries of the region came mainly from a sharp rise in demand for Greek products from Panama, by 39.8%, with their value at €137.1 million from €98.1 million a year earlier. Exports to Brazil increased as well (+101.9% or €35.4 million).

Table 3.9

Exports by destination, January -December 2021 (million €)*

ECONOMIC UNIONS – GEOGRAPHIC REGION	EXPORTS		% CHANGE
	2021	2020	21/20
EU (27)	20,834.7	17,321.0	20.3%
Euro Area	15,525.6	12,967.1	19.7%
G7	11,973.5	10,223.6	17.1%
North America	1,942.9	1,439.0	35.0%
BRICS	1,197.3	1,184.1	1.1%
Middle East & North Africa	5,297.9	3,297.0	60.7%
Oceania	242.8	221.6	9.6%
Central-Latin America	307.3	207.8	47.9%
Asia	2,872.9	2,211.4	29.9%
OPEC countries	2,491.5	1,519.7	63.9%

* Provisional Data

Source: ELSTAT, Panhellenic Exporters Association

The international demand for Greek goods also increased in Asian countries, where exports increased by 29.9% in 2021, to €2.9 billion from €2.2 billion in 2020. This development is mainly driven by a sharp rise by 175.6% in South Korea, from €333,3 million in 2020 to €919.5 million in 2021, as well as by 228.2% in Singapore, from €108.3 million last year to €355.4 million a year later.

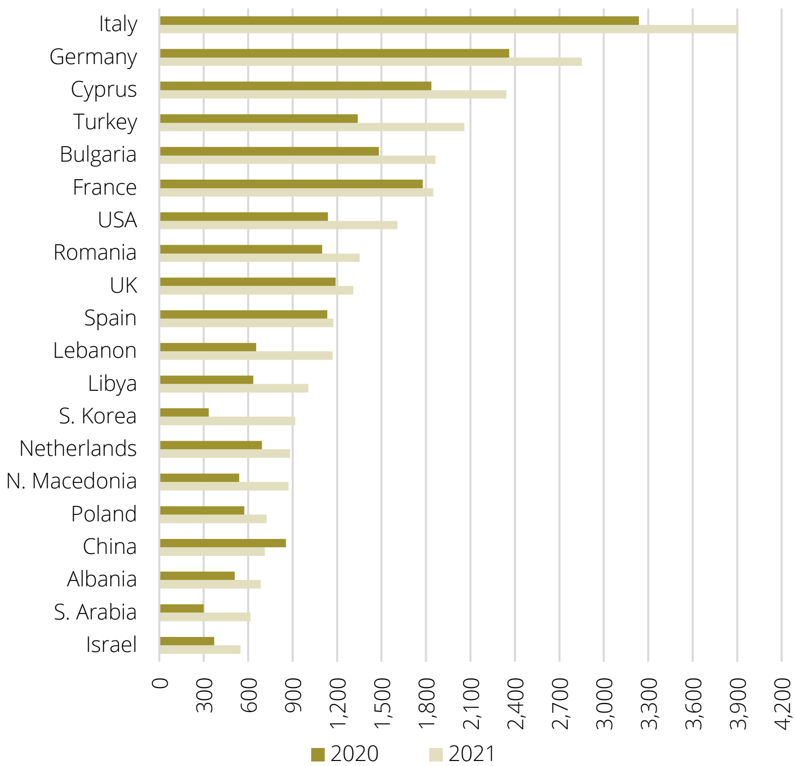
By contrast, demand declined in China (-16.7%, to €711.7 million from €854.8 million in 2020) and Japan (-30.2%, to €247.9 million from €355.2 million in 2020).

To sum up, following their growth last year by 29.2%, Greece's exports of goods reached a new historic peak in 2021. Countries from different geographical regions (e.g. South Korea, Lebanon, USA, Libya), not only from Europe (Italy, Turkey, Germany, Cyprus), contributed to this development. The rise in exports was achieved in a climate of uncertainty and difficulties created in global supply chains by restrictive measures in response to the COVID-19 pandemic, in particular in the first quarter of last year. The increase, however, also stemmed from higher demand for all categories of goods and mainly in the exports of petroleum products (+67.2% for 2021). There was also a significant increase in imports, leading to an increase in the trade deficit by 35.7% compared to 2020, to €23.3 billion.

Figure 3.12

Countries with the largest share in the exports of Greek goods, January - December 2021 (million €)

The largest increase in 2021 in absolute terms was recorded in exports of goods to Turkey (+€721.1 million). The biggest drop - to China (-€143.1 million). Italy remains the country with the largest share of exports.



Source: Panhellenic Exporters Association. Data processing: IOBE

In 2022, the biggest impact on exports and more generally on international trade is anticipated to come from Russia's war on Ukraine. Given, first, Russia's importance in the international trade of energy goods, which has already strongly influenced their prices, but also their particularly high significance for Greece's exports, the effect of increased prices will depend to a great extent on the elasticity of demand for fuel and energy for heating. For example, if the demand for these products is inelastic, then despite the large increase in their prices, the quantity demanded will decrease proportionally less. Exports will therefore be moderately, possibly positively, affected by this current, high increase. The opposite will happen if their demand is elastic. Of course, as prices rise, the behaviour of consumers in the countries where Greek petroleum exports take place may change, especially when they become too expensive, as under the current conditions.

3.4 Employment – Unemployment

- In 2021 the unemployment rate decreased to 14.7% from 16.3% a year earlier, down by 1.6 percentage points. The decline in unemployment was mainly driven by employment growth (+52.5k people), while the economically inactive population also decreased (-46.6k people).
- The non-seasonally adjusted unemployment rate decreased in February 2022 to 13.6% from 16.7% in February 2021
- The highest employment growth in 2021 was recorded in the Primary sector (+34.0k), Public administration (+ 33.4k), Professional, scientific, technical activities (+23.1k), and Manufacturing (+18.9k)
- The greatest reduction in employment was observed in Tourism (-19.2k), Wholesale-Retail trade (-16.8k), and Education (-11.8k)
- The seasonally adjusted wage cost index increased for the sixth consecutive year. In 2021, it increased by 2.1%.

According to the ELSTAT Labour Force Survey, the unemployment rate for 2021 as a whole fell by 1.6 percentage points, to 14.7% from 16.3% in 2020. Compared to 2013, when the unemployment rate had reached its highest level since at least 1998 (27.5%), unemployment has cumulatively decreased by 12.8 percentage points. Compared to 2020, the number of unemployed in 2021 decreased by 77.3k or 10.2% (to 677.7k from 755.0k) while the number of people employed increased by 52.5k or 1.4% (from 3,875.5k to 3,928.0k). Overall in 2021, the decline in the number of unemployed is due by 68% to employment growth and by 32% to a reduction in the labour force (from 4,630.5k in 2020 to 4,605.7k in 2021). Employment growth is therefore the main factor in falling unemployment, which also reduced the inactive population by 46.6k or 1.0% (from 4,448.5k to 4,401.9k). Note that the non-seasonally adjusted unemployment rate in February of this year fell to 13.6%, down 3.1 percentage points compared to February 2021 and by 0.3 percentage points compared to January 2022.

With regard to the evolution of unemployment in the euro area, 14 countries experienced a reduction and five a rise in unemployment. The highest unemployment rate in the Eurozone in 2021 was recorded in Spain, which stood at 14.8% from 15.5% in 2020, followed by Greece and Italy, where the figure stood at 9.5%, virtually unchanged since 2020. In addition, after Greece, the strongest drop in the unemployment rate in 2021 occurred in Luxembourg and Lithuania. In the former, it fell by 1.6 percentage points (from 6.8% to 5.2%) and in the latter by 1.4 percentage points (to 7.2% from 8.6%). The lowest unemployment rate in 2021 was recorded in Germany, at 3.6% from 3.7% a year earlier, and in Malta, at 3.6% from 4.4%. In Cyprus, the unemployment rate fell marginally in 2021, to 7.5% from 7.6% the previous year, while its highest rise was recorded in Belgium (+0.5 percentage points, from 5.8% to 6.3%) and in Ireland (+0.4 percentage points, from 5.9% to 6.3%). Finally, in France — one of the three largest economies in the eurozone — the unemployment rate was virtually unchanged from last year at 7.9%, from 8.0%. In the euro area as a whole, unemployment fell by 0.3 percentage points in 2021 to 7.7%.

With regard to the development of unemployment by gender in Greece, it decreased for both men and women, with the decline being stronger among men and its rate higher among women (by 7.6 percentage points). In detail, the unemployment rate for men fell by 3.2 percentage points to 11.4% in 2021, while for women it fell by 2.6 p.p. to 19.0%. Compared to the Eurozone, the unemployment rate in Greece, both for men and women, is 2.9 and 10.2 percentage points higher, respectively. In the euro area, the unemployment rate for men fell to 7.4% in 2021 from 7.7% in 2020 and for women to 8.1% from 8.4%.

Regarding the evolution of the unemployment rate by age group, it is lower as age increases. In 2021, the 15-19 age group had the highest unemployment rate, while it was also the only category where unemployment increased. In particular, the unemployment rate in 2021 stood at 49.7%, up 11.8 percentage points compared to 2020 (37.9%). By contrast, the age category that experienced the strongest drop in the unemployment rate is those aged 25-29, which stood at 25.2% from 27.2% (-2.0 percentage points), while the lowest unemployment rate occurred last year among those aged over 65, at 7.9% from 8.7% in 2020. The weakest drop in the unemployment rate is found in the age category 20-24, by 0.7 percentage points (from 34.7% to 34.0%). Finally, in people aged 30-44 and 45-64, unemployment fell by 1.3 p.p. (from 15.9% to 16.4%) and 1.7 p.p. (from 12.6% to 10.9%) respectively.

As regards the structure of the duration of unemployment, the share of the long-term unemployed in 2021 was down by 3.9 percentage points, to 62.6% from 66.5% in 2020, with the number of long-term unemployed falling by 15.0% or by 75.3k, to reach 426.9k from 502.1k.

With regard to the trend of unemployment based on the level of education, it is lower for higher levels of education. In 2021, in all categories of education except those who attended a few primary classes or did not go to school at all, the unemployment rate fell. The strongest drop in the unemployment rate occurred among those with a primary school diploma, falling to 15.5%, from 18.2% in 2020 (-2.7 percentage points), followed by those with a higher technical vocational education degree, where the unemployment rate reached 14.7% from 16.7%. The weakest decline in the unemployment rate in 2021, by 0.4 percentage points, was recorded among people with a university degree, to 12.2% from 12.6%. People with a postgraduate or doctoral degree achieved the lowest unemployment rate last year, at 7.1% from 8.5% a year earlier (-1.4 percentage points). Finally, among those who attended a few primary classes or did not attend school at all, the unemployment rate increased marginally, by 0.2 percentage points, remaining the highest among the education categories (from 39.4% in 2020 to 39.6% in 2021).

In terms of trends in the regional dimension of unemployment, in four of the 13 regions of the country unemployment increased and in the remaining nine it decreased. The highest unemployment rate in 2021 was recorded in Western Macedonia, where it rose by 0.2 percentage points, to 19.8% from 19.6% in 2020, followed by the South Aegean, where unemployment increased most in 2021, with the rate reaching 18.8% from 16.8% a year earlier (+2.0 percentage points). By contrast, the lowest unemployment rate was recorded in 2021 in Attica, where it fell to 11.9% from 14.1% last year. An increase in the unemployment rate, by 1.4 percentage points, was recorded in 2021 in the regions of Eastern Macedonia-Thrace and Peloponnese. In the former region, it rose from 17.2% to 18.6% and in the latter - from 11.3% to 12.7%. The strongest drop in the unemployment rate last year was recorded in Western Greece, by 4.1 percentage points, reaching 17.5% from 21.6%. The unemployment rate in the North Aegean region fell by 2.7 percentage points to 13.8% from 16.5%.

Figure 3.13

Labour force participation and unemployment rates

Unemployment rate fell in Greece in 2021 to 14.7%, from 16.3% a year earlier

Sources: ELSTAT – Labour Force Survey, Eurostat

With regard to the employment trends per professional status, the strongest rise in 2021 was observed in the most populous category of employees, where it reached 37.0k or 1.4%, totalling 2 677.9k. In the self-employed, the increase reached 12.9k or 1.2% (from 1.118.0k to 1.130.9k), while the number of contributing family workers increased to 119.2k from 116.6k (+2.3%).

In terms of the evolution of employment per occupation, in all occupations, except managers, technicians, and service-sales workers, it increased last year. In absolute terms, the strongest increase in employment last year was found among professionals and skilled agricultural-forestry-fishery workers. In the first category, employment increased by 43.0k or 5.5%, reaching 824.2k, and in the second by 39.2k or 10.4%, to 414.6k. By contrast, the largest employment contraction was recorded among service-sales workers and technicians. In the first occupation, the number of employees fell to 868.5k from 906.3k (-4.2%) and in the second to 309.1k from 330.7k (-6.5%).

Based on the employment status, the number of full-time workers increased in 2021 by 1.8% or by 62.5k compared to 2020, reaching 3.598.8k people. By contrast, the number of part-time workers decreased by 10.2k or 3.1%, to 334.4k. Note that the proportion of men working full-time (94.8% in 2021, from 94.4% last year) is higher than that of women (87.5% in 2021 and 87.2% in 2020).

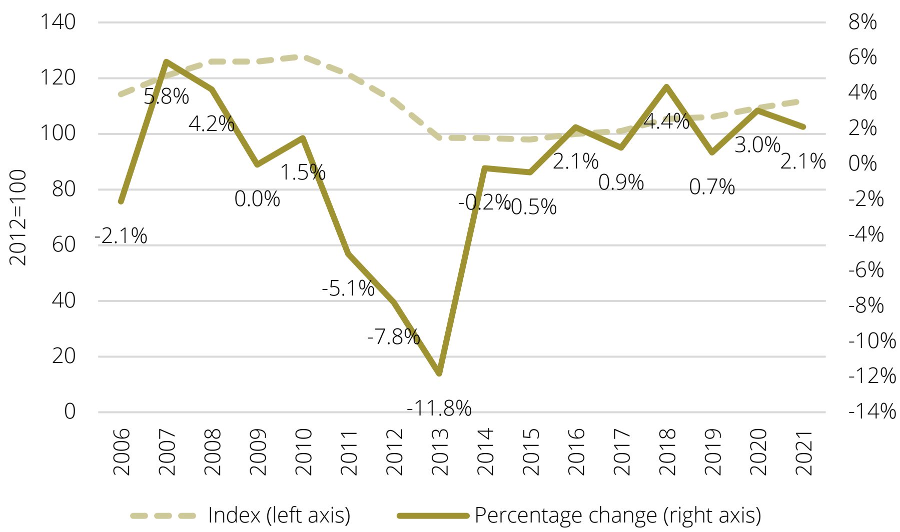
As regards the employment trends at the key sector level, in 2021 employment expanded in the primary and secondary sectors and declined in the tertiary sector. Specifically, in the primary sector employment increased by 34.0k or 8.3%, reaching 446.0k employed, and in the secondary sector by 18.6k or 3.2%, to 600.1k. By contrast, in the tertiary sector, the most populous sector of the Greek economy, employment marginally decreased in the previous year to 2,880.9k employed (-1.2k or -0.04%).

At the level of branches of economic activity, in 2021 employment increased in 10 branches and declined in 11 branches. The strongest increase in absolute terms took place in the Primary sector, where employment increased by 34.0k people, as mentioned above. This is followed by a similar absolute increase in Public administration (+33.4k employees), with employment reaching 383.9k people last year. At the same time, employment significantly expanded both in Professional-Scientific-Technical activities and in Manufacturing. In the first sector, the number of employed amounted to 252.6k out of 229.5k (+10.1%) and in the second to 390.0k out of 371.1k (+5.1%). In human health-social care activities, employment increased by 14.1k people, reaching 283.0k people (+5.2%). By contrast, the strongest decline in employment over the past year took place in Accommodation and Food Services Activities, by 19.2k people or 5.6% (at 324.5k people), and in Wholesale-Retail Trade, by 16.8k or 2.4% (at 696.9k). Finally, in Education and Financial-Insurance activities, employment fell between 2020 and 2021 by 11.8k (to 312.1k employees) and by 9.0k (to 75.6k) people, respectively.

Figure 3.14

Seasonally adjusted wage cost index and percentage point change

The seasonally adjusted wage cost index in 2021 increased for the sixth consecutive year, by 2.1% compared to 2020



In conclusion, the employment figures at sectoral level show that its growth in 2021 compared to 2020 was mainly driven by its rise in the following sectors:

- Primary sector (+ 34.0k employed),
- Public administration (+ 33.4k employed),
- Professional, scientific, technical activities (+23.1k employed),
- Manufacturing (+18.9k employees), in line with the increase in the seasonally adjusted industrial production index by 9.8% and the industrial turnover index by 25.8%,
- Human health and social care activities (+14.1k employees),

and despite the decline in employment in the following sectors:

- Tourism (-19.2k employees), in contrast to the more than doubling of international tourist arrivals at the country’s main airports in 2021 compared to 2020 from 5.91 million to 12.64 million, (+6.73 million or +113 %), more than doubling of tourism receipts from €1.08 billion to €2.63 billion (+€1.55 billion or +144 %), and the increase in tourism turnover by 82%. The reduction is probably due to the furlough of many jobs in the sector in 2020, as part of the COVID-19 pandemic support interventions.

- Wholesale-Retail trade (-16.8k employees), in contrast to the increase last year in the seasonally adjusted volume index in Retail Trade (+10.4%) and the seasonally adjusted turnover in Wholesale trade (+19.1%), also probably due to the furlough of many jobs in the sector in 2020, as part of COVID-19 pandemic support interventions.
- Education (-11.8k employed).

As regards the trend of the seasonally adjusted wage cost index for the Greek economy as a whole, it rose for the sixth consecutive year last year and stood at 111.5 points (+2.1%).

Table 3.10

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

Sources: ELSTAT, Labour Force Survey

Medium-term outlook

The last quarter of 2021 and the first two months of this year were marked by a significant increase in global inflation, driven by a sharp rise in energy costs, mainly due to a significant recovery in the global economy, coupled with limited reserves and oil production. The outbreak of the war in Ukraine last February had a further negative impact on inflation, primarily in two ways. Firstly, due to the decision of European Union member states and some other developed economies (USA, Canada, the United Kingdom) to limit the imports of energy products from Russia, with a possible intention of definitive decoupling from this specific source of supply in the coming years. This development has a wider negative effect on the demand for energy products from Russia, from large companies to which it was a supplier. Secondly, because of Russia and Ukraine's key role in the production of certain commodities and raw materials worldwide, such as wheat, corn, copper, and nickel.

Taking into account developments in energy prices since last year, the government took measures in November to retrospectively subsidise electricity consumption for the period September-December. The subsidy was extended from January to gas consumption. Since April, the amount of the subsidy has increased significantly, while a special electricity subsidy has been granted to small and medium-sized enterprises. In addition, a fuel consumption subsidy for households was introduced for the quarter of April-June. The above measures mitigate the impact of the particularly high prices of energy products on household income and on the liquidity of businesses respectively and thus on their consumption. Transfers to vulnerable social groups (low-pension beneficiaries, people with disabilities, beneficiaries of minimum income, etc.) that were decided in late March will also boost income. The total budget of energy interventions announced in the first four months of this year reaches €1.9 billion. Most of these interventions are expected to continue as long as energy costs remain at a high level, which will depend primarily on the duration of the war in Ukraine, for the reasons analysed above. In the baseline scenario of IOBE macroeconomic forecasts, the war is expected to continue beyond the end of spring-early summer, with strong, probably larger than the current effects on energy costs. The alternative scenario is more optimistic, envisaging that the war will end in the next two months.

As regards developments in the health issue, after January the fourth wave of the pandemic began to ease gradually, from the most contagious but less dangerous to human health variant of SARS-CoV-2 ("Omicron"), reducing intubations and deaths, although cases have increased since the end of February, when the stricter public health protection measures began to be gradually lifted. Unlike previous outbreaks, the scope of the measures was limited, to Food Services-Recreation sectors, while it did not include the suspension of operations. Therefore, there were no disruptions to the operation of these and other sectors (Retail Trade, Tourism, Transport) and more generally to the functioning of the economy, similar to the lockdown a year earlier. By the end of March, almost all of the health measures relating to the "Omicron" variant were lifted, and according to recent announcements by the government, from 1 May to 31 August the obligation to show vaccination and disease certificates for access to all indoor and open spaces will be lifted and the occupancy rate of all venues (food, entertainment, retail outlets) will be lifted to 100%. At the same time, unvaccinated workers will have access to their workplace by carrying out one rapid test per week. Following these developments, generalised restrictive measures are not expected to be reintroduced in either scenario of macroeconomic developments. Overall, the above developments, related to energy costs and the pandemic, will prevent consumer demand from falling by maintaining employment in the sectors in which it takes place (Retail Trade, Tourism, Recreation and Entertainment, Transport).

Another factor that will affect disposable income and consumer demand is the expected significant increase in the minimum wage since 1 May, by between 6-8%, based on recent announcements by the government. As a result of this increase, the minimum wage is expected to rise to a level slightly above €700. Nevertheless, this increase will mainly affect companies in sectors where a large share of workers are paid at the minimum wage, e.g. because of a high proportion of unskilled work. It implies that entrepreneurs in these sectors will have to cope with both the current strong rise in energy costs and the increase in wage costs. In cases where these pressures will be strong, then at least temporarily, during the energy crisis, alternatives to full employment, e.g. part-time work, may be preferred and redundancies are possible. On the significance of the minimum wage, descriptive wage data for Greece in 2016-2021 are presented at the end of this section (Box 3.3).

As for the expected developments in the tourism sector, international traffic flows at the largest airports in March, the first month of the war, remained strong, with its decline compared to 2019 at the Athens International Airport remaining at the levels of last November, before the "Omicron" outbreak (~-30 %). Previously, pre-bookings for the coming summer were high. However, the war in Ukraine, as well as its evolution, will have an impact on tourism, by halting the recovery in the EU, from which the majority of tourists come, but also worldwide. Both IOBE's 2022 macroeconomic scenarios forecast a significant expansion of tourism revenues, but milder than expected before the war. Specifically, in the baseline scenario, a long duration of the war will limit revenues from tourism services in the region of 70-75% of 2019 levels, €2.2-3.1 billion higher than in 2021. In the event of an earlier end of the war, as projected in the alternative macroeconomic scenario, revenues from tourism services will reach 80-85% of 2019 levels (+€3.9-€4.7 billion higher than in 2021). In any case, the tourism sector will contribute to reducing unemployment this year.

As stated in previous IOBE reports, the public sector will act as a booster to domestic employment in 2022, firstly through planned public sector recruitments, which, according to the 2022 Budget, will increase for another year from OAED's temporary employment programmes. In this regard, the provisional lists for beneficiaries of the new community work programme of 25,000 positions in municipalities, regional authorities and other public agencies are expected in April. Recently, work contracts were extended for another year through the special employment programme of 4,000 long-term unemployed in public health.

The increase in investment in tourism and in the export-oriented sectors of Industry, mainly by using the resources of the recovery fund, as well as the start of works in significant privatisations, such as in Hellinikon, will significantly boost job creation in the coming year, inter alia, in Construction.

Taking into account the above effects on the labour market, in 2022, in the base scenario of macroeconomic forecasts, the unemployment rate is expected to be in the region of 13.5%, while in the alternative scenario it is expected to stand in the region of 12.8-13.0%.

According to IOBE's latest business survey data, in the quarter of January-March 2022 compared to the fourth quarter of the previous year, there was a slight deterioration in the short-term employment expectations in all sectors except Construction, while in Retail trade the expectations declined more strongly. Compared to the same period of 2021, employment expectations strengthened significantly in Construction and Industry, while the change in Services and Retail trade was milder. In more detail:

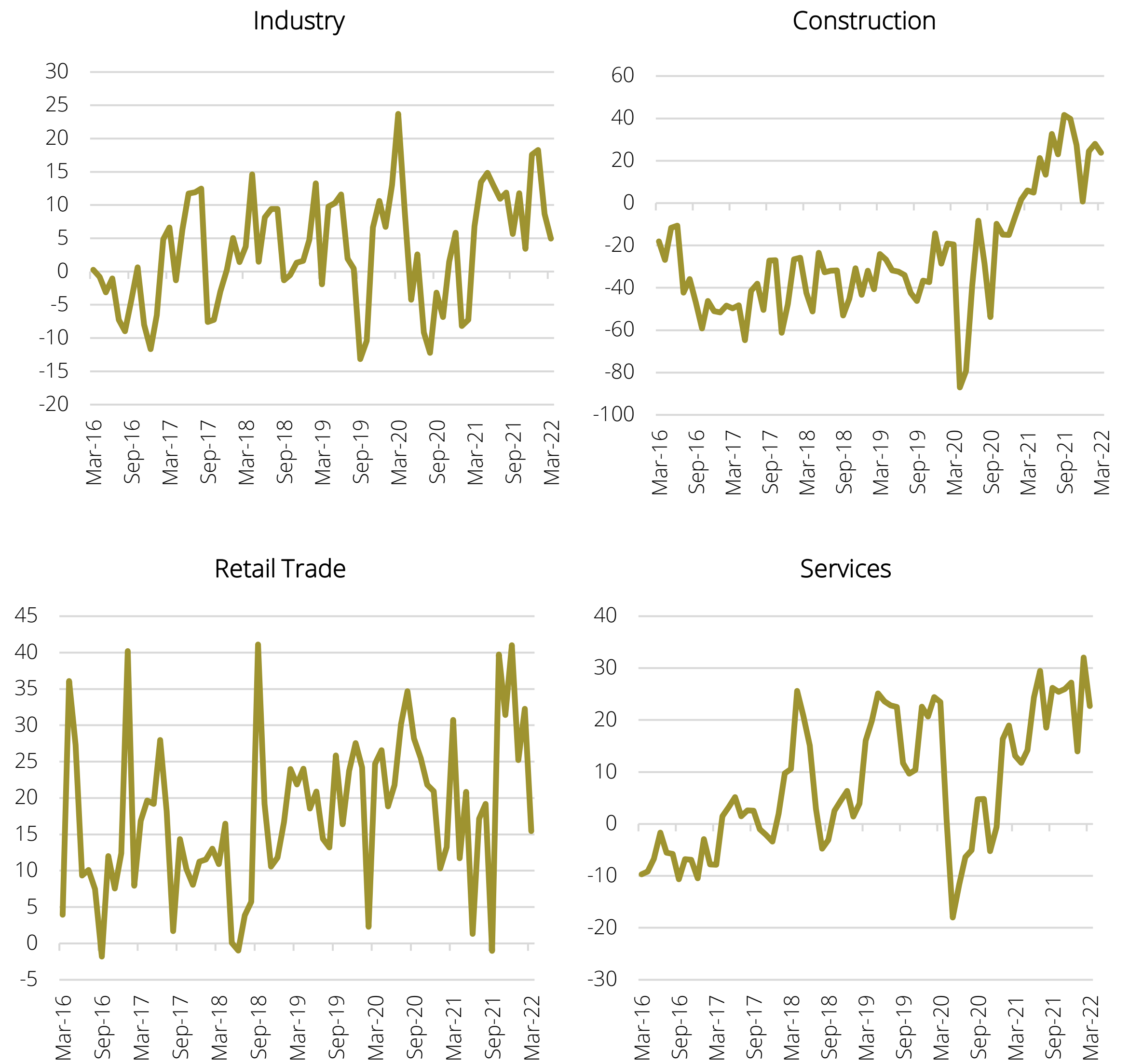
In Industry, the average balance remained unchanged from the previous quarter (Q4 od 2021) at +11 points. Year on year, the average quarterly index is approximately 14 points higher. In the quarter under review, the percentage of industrial enterprises forecasting a decline in their employment in the coming period marginally increased to 9%, from 8% in the previous quarter, while at the same time the percentage of those expecting job creation increased to 20% (from 19%). However, the vast majority of enterprises in the sector (71%) foresee stability in terms of employment.

In Construction, the expectations point to a slight increase in the employment balance of the sector, which improved slightly from +23 points to +25 points, but at a much higher level compared to the same period of 2021 (+25 points). In the quarter under review, 13% (from 19%) of the companies in the sector expect job losses, while the percentage of respondents expecting employment growth fell to 39% (from 42%). At the branch level, the small improvement of the relevant indicator in Public Works (+ 38 from +34 points) is enhanced by the mild improvement of the indicator in Private Construction (+7 from +5 points).

The Retail Trade employment expectations Index declined significantly in the first quarter of this year compared to the previous quarter, to +24 points (from +37), a performance slightly higher than last year (+6 points). Only 4% of companies in the sector expect jobs to fall, while 29% (from 39%) forecast employment growth, with those expecting no change moving to 67% (from 59%) of the total. In the individual branches of Retail Trade, the employment expectations balance decreased significantly in food — beverages and textiles — clothing — footwear, while the weakening in the other sectors is milder.

Figure 3.15

Employment expectations (difference between positive and negative responses)



Source: IOBE

In the quarter of January-March 2022 compared to the fourth quarter of the previous year, there was a slight deterioration in the short-term employment expectations in all sectors except Construction, while in Retail trade the expectations declined more strongly.

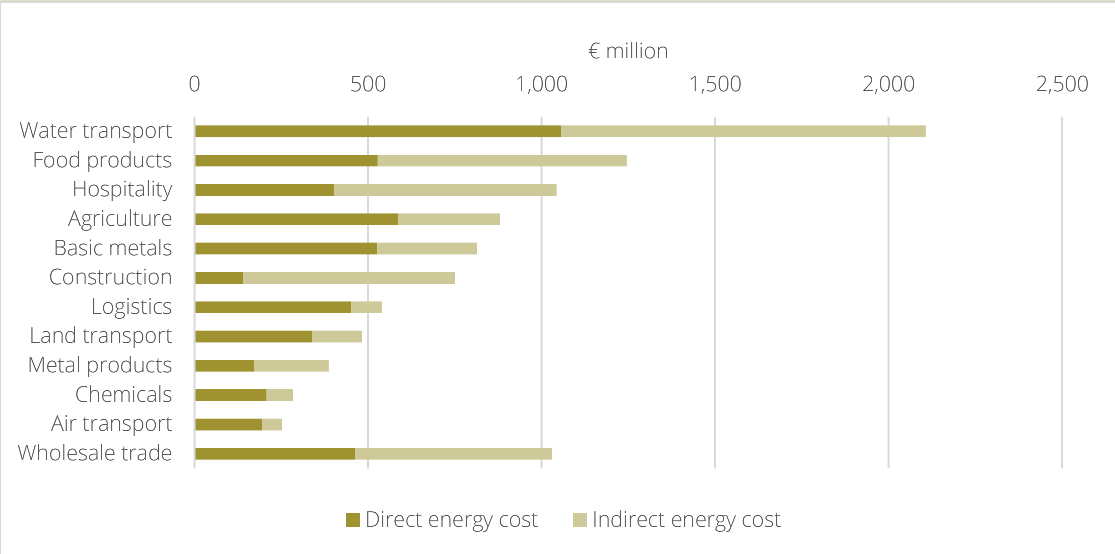
In Services, the expectations in the quarter under review slightly weakened compared to the previous quarter and appear slightly stronger than in the corresponding period last year. The expectations balance decreased by 3 points to +23 points in the first quarter of 2022, while compared to the corresponding period of 2020 it was higher by 7 points. Of the companies in the sector, 6% (from 9% in the previous quarter) expect employment to decline, with the percentage of those anticipating an increase falling to 29% (from 35% in the previous quarter). At the branch level, the trend is strongly positive in land transport, milder yet positive in hotels-restaurants, negative among financial intermediaries and miscellaneous business activities, and unchanged in information technology.

Box 3.3 Descriptive analysis of employee earnings in Greece 2016-2021

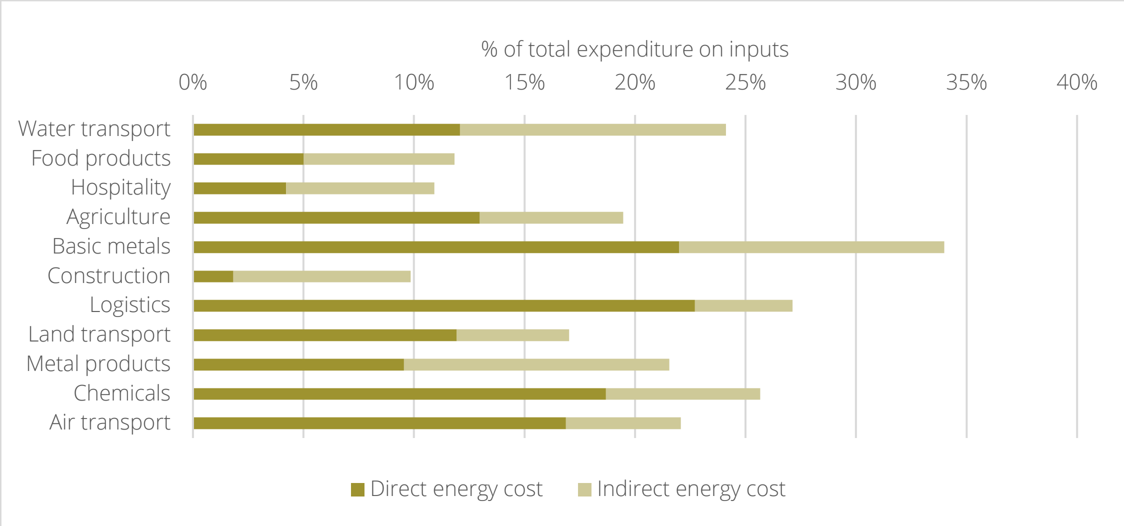
The trends in labour pay are key to the balancing of the formal labour market. Among the many effects it has, it directly affects the disposable income of households, interacts with employee productivity, shapes the competitiveness of the economy, and indirectly determines the revenues and to a large extent the viability of the social security system. In view of the government decisions that will be implemented from 01/05/2022 on the level of the minimum wage, key trends in the remuneration of employees in Greece in 2016-2021 are presented in this box. For this purpose, we use data from the annual electronic reporting of personnel lists in the ERGANI information system of the Ministry of Labour, Social Security and Social Solidarity, for all employees in the country with a private-law employment relationship. The electronic inventory of all employees in the ERGANI information system is done once a year, usually in the fourth quarter.

Figure 3.16 Average gross salary of employees in Greece, 2016-2021

A. Total full-time employees



B. Per enterprise size, based on the number of employees

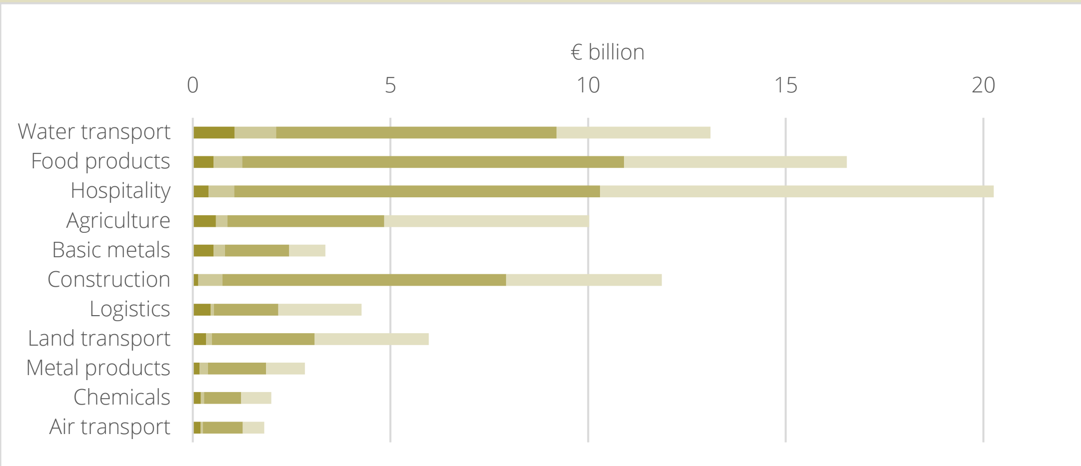


Sources: Ministry of Labour, ERGANI Information System annual personnel reports, IOBE data processing.

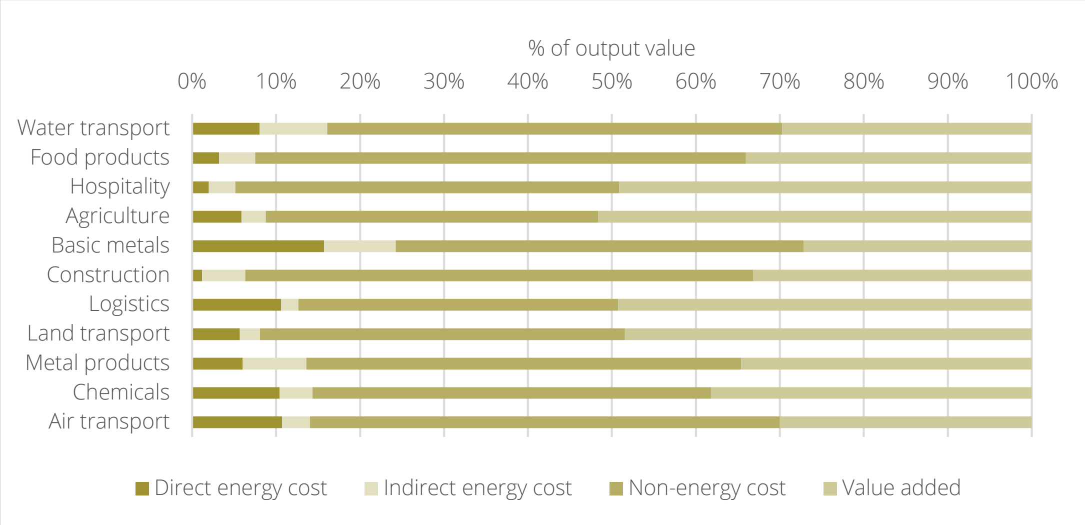
The period under review is of particular interest as it includes the last years of the debt crisis, but also the two-year period of the pandemic crisis. In addition, during this period, policy measures with a direct impact on the labour market and the level of wages were implemented, such as two increases in the minimum wage (February 2019, January 2022) and two reductions in compulsory social security contributions (June 2020, January 2021).

Figure 3.17 Share of employees earning minimum wage, 2016-2021

A. Per employment type



B. Per enterprise size, based on the number of full-time employees



Sources: Ministry of Labour, ERGANI Information System annual personnel reports, IOBE data processing.

The average gross wage for the total full-time employees recorded a significant increase in 2021, by 5.2%, reaching €1,337 for those earning above the minimum wage (Figure 3.20A). Subsequently, the minimum to average wage ratio for full-time employees fell in 2021 to 51%, taking into account the three-year adjustments and 49% excluding these adjustments. Despite the decrease, this rate highlights the high degree of wage compression in total full-time paid employment in the country. In addition, the average wage varies strongly depending on the size of the enterprises, while the increase recorded in 2021 is mainly due to an increase in the average wage in medium and large enterprises. The average gross wage in 2021 ranged from just €907 in small enterprises of up to 10 people to €1,732 in enterprises with 50-250 employees.

The figures also show that a particularly high proportion of persons employed in flexible forms of employment are paid at the minimum wage (Figure 3.20B). This rate among part-time or rotation workers increased significantly in 2019, while in 2021 it reached 48%, compared with 20% among full-time employees. In addition, the proportion of full-time employees paid at the minimum wage is particularly high in small enterprises (37% in enterprises of up to 10 people) and lower in larger businesses (9% in enterprises with over 250 employees).

Table 3.11 presents the 19 single-digit sectors of economic activity, ordered by size of employment in 2021, with figures on average earnings and the share of minimum wage earners. Indicatively, the primary and services of the tertiary sector, such as Food Services, Tourism, and Entertainment, stand out with the highest percentage of minimum wage earners. The primary sector, as well as Construction, Trade, Health, Education and Administrative activities, had the lowest average earnings last year.

Table 3.11 Number of employees, average gross earnings, and percentage of minimum wage earners, by sectors of economic activity, 2021*

Economic activity sector	**NACE Rev. 2 code**	**Number of employees**	**Average gross earnings of full-time employees (€)**	**% of full-time minimum-wage earners**
TRADE	G	556,920	1,101	24%
ACCOMMODATION AND TOURISM	I	327,621	2,050	34%

3.5 Consumer and Producer Prices

- At a 25-year high, the increase of the CPI in the first quarter of 2022, by 7.5%, against 1.6% deflation a year ago. In the first two months of this year, HICP increased by 5.9%, compared with a decline of 2.1% a year ago. The increase came mainly from the positive effect of energy prices.
- Rate of change of HICP with fixed taxes and without energy: 2.7% in the first two months of 2022, from a decline of 0.7% a year ago.
- For 2022, in the baseline forecast scenario, the Consumer Price Index is projected to increase in the region of 7.0% to 7.8%, due to strong rises in energy prices.
- In the event of completion of the war operations by late May - early June (alternative forecast scenario), it is projected that the average annual rate of change of the CPI this year will stand at 6.2-6.8%, primarily due to milder rise in energy prices.

Recent developments

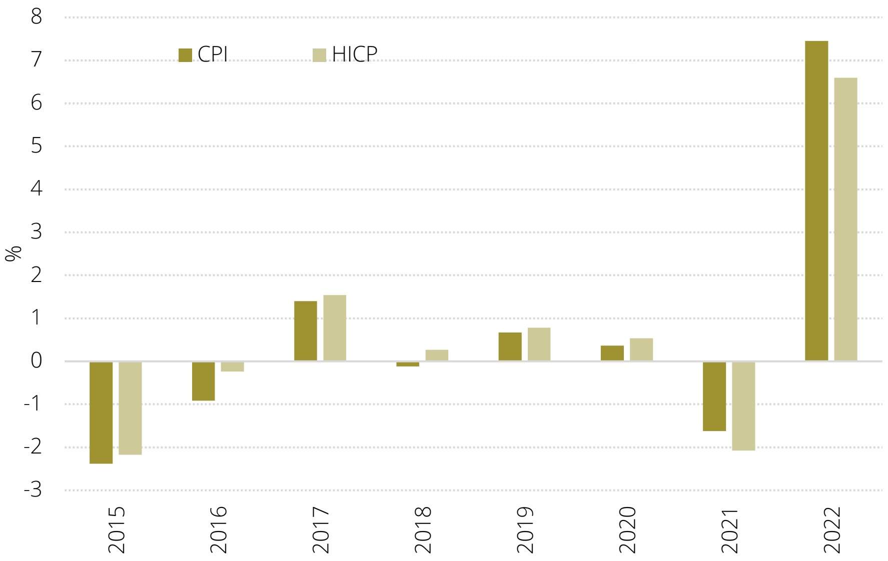
In the first quarter of 2022, there was a particularly strong increase in prices compared to a year ago, with the average rate of change in the domestic Consumer Price Index (CPI) at 7.5%, against 1.6% decline a year ago. The Harmonised Index of Consumer Prices (HICP) rose by 6.6% in January-March this year, from a decline of 2.1% last year. Especially in March this year, the domestic CPI increased by 8.9%, from 7.2% in the previous month, while in the same month last year it fell by 1.6%. The significant price increase in the first quarter of 2022 is partly due to a "base effect" due to the low level of the CPI one year earlier. Indicatively, the average change in the price index in this quarter of 2021 stood on average at -1.6%. As the average change in the CPI in the remaining months of last year stood at 2.2%, there is an incremental base effect in its first quarter for the same period one year later, of 2,7 percentage points of the CPI. If this is taken into account in the change in the price index in the first quarter of 2022, inflation is adjusted to 4.8%.

As regards the effects of the HICP components on its trend in January-February this year, for which data are available, the significant strengthening of the harmonised index, by 5.9%, from a decline of 2.1% in the corresponding period of 2021, is mainly, but not exclusively, due to the strongly positive effect of energy goods, as the change in the index with fixed taxes and without energy goods was 2.7%, thus domestic demand also had a positive effect on prices. Negative and slightly more pronounced was the effect of indirect taxation on prices in January-February this year, by 0.2 percentage points of the HICP, from 0.1 percentage points in the corresponding period of 2021.

With regard to developments in energy goods prices and their impact on the HICP, the average international oil price in January-February of this year increased strongly compared to the same period last year. The average price of Brent oil stood on average at $91.7/barrel in the first two months of 2022, from $58.5/barrel last year, up 56.7%. The decline in the euro's average exchange rate against the dollar in the same period, by 6.6%, to 1.13 against 1.21, further strengthened the rise in the price of petroleum in euros, with its average price standing at €80.9/barrel, 67.7% higher than in the same period last year. The strengthening of the oil price, which is a key component of energy costs, led to an average incremental effect of energy goods prices on the rate of change in domestic prices of 3.2 percentage points in January — February 2022, compared with a negative effect of 0.5% in the corresponding period of 2021.

Figure 3.18

Annual change in the domestic CPI and the HICP in Greece (January - March 2022)



Average CPI year-on-year increase of 7.5% in the first quarter of 2022, against 1.6% deflation in the corresponding period of 2021.

Source: ELSTAT. Data processing IOBE

Figure 3.19

CPI in Greece (annual percentage change per month)

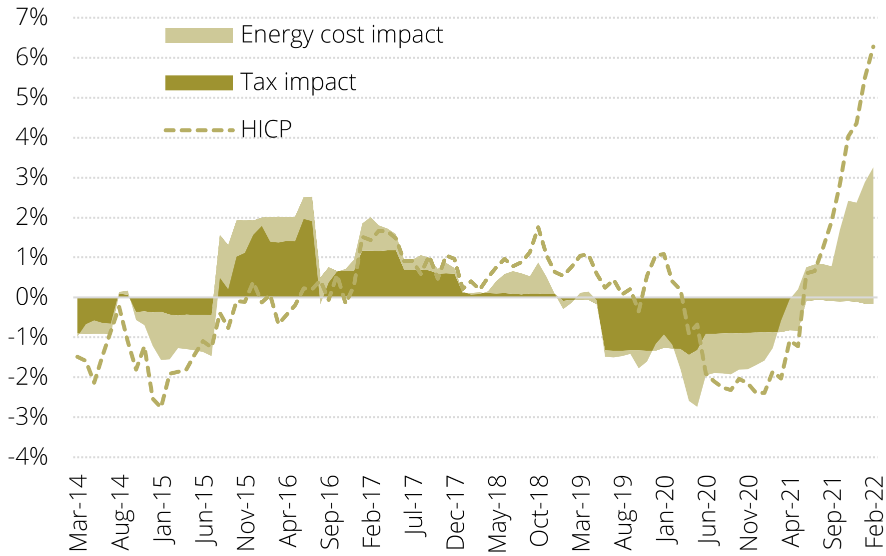
Particularly strong rise of the domestic CPI in March (8.9%), compared with a decrease of 1.6% in the corresponding month of 2021. The largest increase in almost 27 years.

Source: ELSTAT. Data processing IOBE

Figure 3.20

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

Negative impact of taxes on prices in January-February 2022, by 0.2 p.p., against a stronger impact last year (-0.9 p.p.)



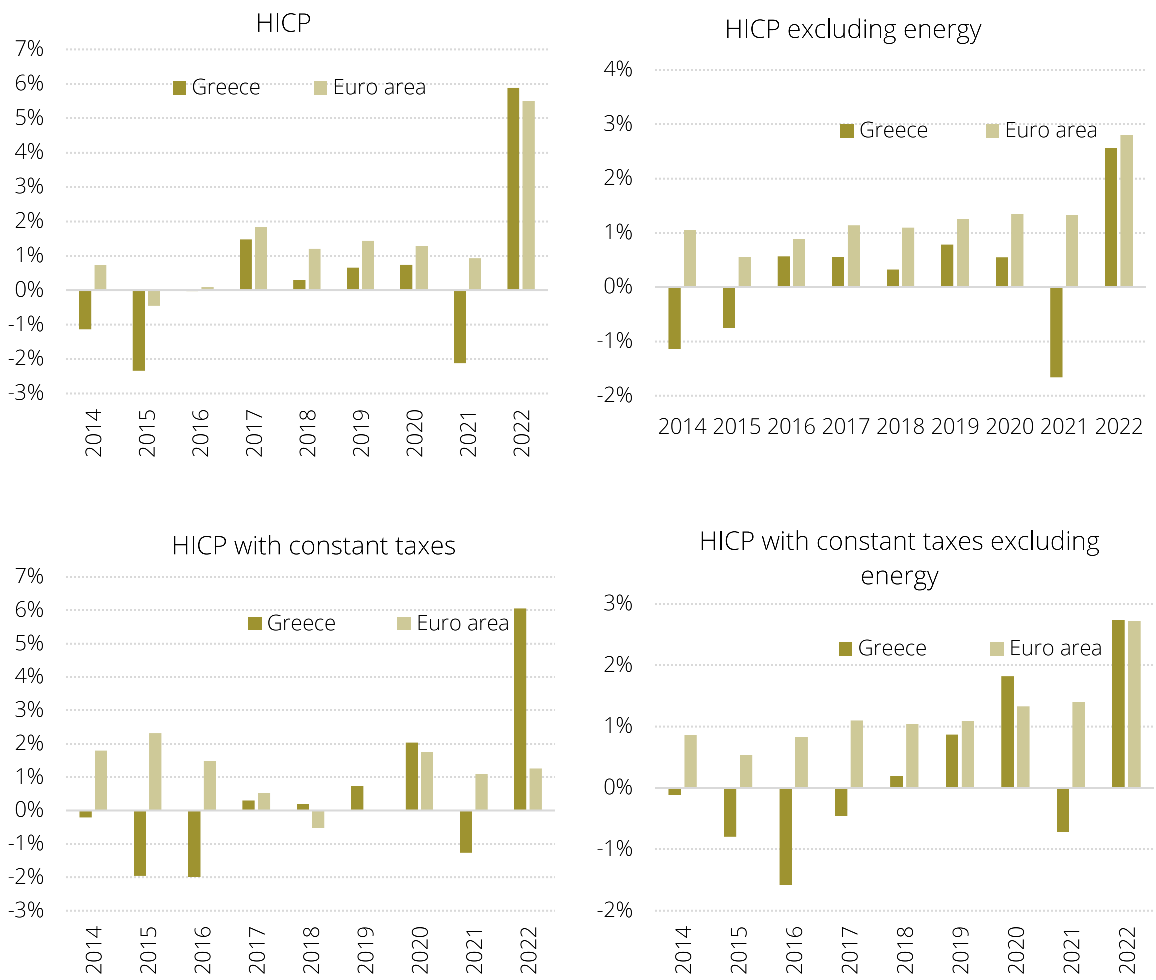
Source: Eurostat. Data processing IOBE

The large increase in the price level in Greece based on the HICP in the first two months of this year, by 5.9%, finds the country in the middle of the ranking among euro area countries in terms of the rate of change. The average change in the euro area HICP stood at 5.5% from 0.9% in the corresponding period of 2021. Domestic demand appears to have been the main driver of price growth in the euro area, as the price index with fixed taxes and without energy goods increased by 2.7% in January - February 2022, compared to the same period of 2021, when it increased by 1.4%.

Regarding trends in product and service categories included in the domestic Consumer Price Index, the largest increase in January-March this year was recorded in Housing and Transport, reflecting the significant increase in energy prices. The price rise in Housing reached 26%, from a decline of 1.7% a year ago, while in the Transport category prices rose by 12.9%, from a decline of 3.6% in the first quarter of 2021. Significantly milder, yet still quite high was the change in Food products, where prices increased by 6.8% from a marginal decline of 0.4% a year ago, followed by clothing with 6.4% increase, from a decrease of 6.8% last year. Price increase was recorded in durable goods and hotels, by 3.6% and 2.0%, respectively, from a decline of 2% and 0.5% a year ago. Education prices increased by 0.9% in January-March this year, from price stability a year ago, while prices of Other goods were unchanged (0.1%) from a decline of 1.8% in the first quarter of 2021. In alcoholic beverages and health, prices remained stable over the period considered compared to a year ago, when they also changed marginally compared to 2020 (0.2% and 0.1%). By contrast, prices in Recreation declined marginally, by 0.3% from a decrease of 0.4% in the first quarter of 2021. The sharpest fall in prices occurred in the Communications category, by 3.1%, a decline of 1.8% in the corresponding period of 2021.

Figure 3.21

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



Source: Eurostat. Data processing IOBE

Particularly strong price increase domestically in the first two months of 2022, mainly due to the push from energy goods (3.2 percentage points).

In terms of price trends on the production side during the first two months of 2022, for which data are available, the Producer Price Index (PPI), overall for the domestic and external markets, recorded a particularly strong increase of 32.6% compared to the same period of 2021. In detail, the PPI excluding energy increased in the first two months of 2022 by 5.9%, compared with a marginal rise in the corresponding period of 2021 (0.9%). In terms of trends in industrial product prices, crude oil - natural gas and refined petroleum products recorded the largest increase, with 69.6% and 64.7%, against a decline of 8.1% and 15.8% respectively a year ago. A significant rise in producer prices was also recorded in Coal and Lignite, by 35.4%, following an equally strong rise of 40.6% in the first two months of 2021. Wood products followed with a much lower but fairly high level of positive change, with 17.8%, compared with a marginal decline of 0.3% in the first two months of 2021, but also basic metals, with 16.6%, compared with a lower rise of 3.5% a year earlier. Milder trends in producer prices took place in plastic products, (+13.1%) compared with a 0.8% decline last year. Increases in producer prices were recorded in January-February of this year in both metal products and minerals, by 11.8% and 10.8% respectively, compared with an increase of 3.3% and 0.5% a year ago. Slightly milder was the rise in electrical equipment, 9.5%, followed by an increase of 5.9% a year ago. By contrast, the trend in producer prices in pharmaceuticals and beverages was negative, at 0.7% in both categories, after a decrease of 1.1% and a rise of 1.6 % respectively last year.

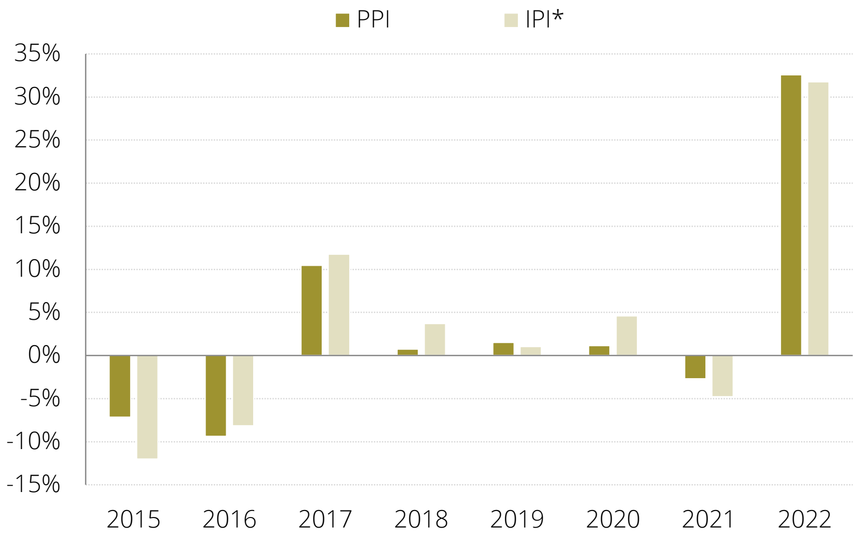
On the evolution of the Import Price Index (IPI) in January of this year for which data are available, it increased sharply by 31.8%, compared with a decline of 4.8% a year ago. The same index in the euro area strengthened slightly less than in Greece, by 26.1%, against a decline of 2.8% in the same month of 2021. The strong rise in import prices domestically ranks Greece first along with Estonia among ten euro area countries for which data are available in that period, with the Netherlands coming next (28.1%). It should be noted that in all euro area countries for which data are available, there is a significant increase in import prices in the first month of this year compared to 2021, which mainly reflects the strong rise in energy prices.

Among the individual categories of imported goods, the largest increase in January 2022 was recorded in crude oil extraction, by 84.5%, mainly due to the positive impact of energy prices, compared with a decrease of 6.2% in the corresponding period of 2021. Slightly milder was the boost in refined petroleum products, by 66.5%, against a 26% decline in January 2021. Particularly strong upward trends were observed in basic metals, by 31.4%, and minerals, by 13.9%, from a milder rise of 2.2% and 0.2% respectively a year ago. By contrast, prices fell in January 2022 in beverages, by 2.8%, and in leather goods, by 2.8%, after a rise of 1.4% and a decline of 1.0% respectively a year earlier.

Figure 3.22

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

A rise in import prices (31.8%) in January 2022, mainly due to the positive impact of energy prices. A rise in producer prices too (+ 32.6 % in the first two months of 2021).



Source: ELSTAT. Data processing IOBE * The import prices for 2022 concern only January due to limited data availability

Medium-term outlook

Looking at trends in the main components of the domestic Consumer Price Index in January-March of this year, it has been shown that its particularly strong increase is primarily the result of the increase in energy prices. In the first months of this year, petroleum prices increased strongly, as a result of many factors. The most important factor is the Russian invasion of Ukraine in late February and the war that has been raging since. The uncertainty caused by the war, which has a strong impact on prices, is also due to the widespread sanctions imposed by the United States, the European Union and several other countries on Russia, combined with its particularly important role in oil and gas production. After all, some of these sanctions concern the ban on importing oil from this country (Canada, USA, gradually UK). Russia produces 11% of the global oil consumption and 17% of the global gas consumption, as well as 40% of its consumption in Western Europe. The most recent relevant development in the prices of energy products is Gazprom's decision to receive payments for its gas supplies only in rubles.

Beyond these recent, particularly important developments, the effects of which are currently difficult to predict in the medium term, energy prices have increased since the second half of 2021 due to the rapid global recovery. Under these conditions, oil consumption was significantly higher than oil production before the war. In addition, on the supply side, several OPEC members were unable to increase production in line with agreed targets. With regard to the expected impact of the health crisis, despite the unprecedented increase in cases due to the new coronavirus mutation at the end of 2021, the additional measures to contain it were milder than in previous outbreaks. In addition, almost everything has now been lifted, with significant prospects for their complete elimination within the current half of the year. As a result, these measures are expected to have a lower impact on the economy than the previous policy intervention packages. However, a new outbreak of the pandemic remains possible, e.g. in the autumn, which will lead to a significant deterioration in health data, such as the number of intubations and COVID-19 victims.

As a result, in the first quarter of this year, the international price of Brent oil rose above $100 per barrel, up 64.4% from a year ago. The euro/dollar exchange rate in the first quarter of 2022 on average stood at 1.12, down 6.9% from the corresponding period of 2021. Subsequently, the average price of oil in euros reached €89.5/barrel, recording a particularly large increase compared to a year ago, by 76.5%.

New measures were announced domestically at the beginning of January to halt price increases in energy. The support measures were intended to compensate for about 60% to 80% of the increase, depending on electricity consumption in primary residences, while for households using natural gas the subsidy was EUR 20/MWh for the total monthly consumption. As far as businesses are concerned, the subsidy was 'horizontal' for electricity and gas consumption. In addition, a suspension of payment of public utility charges for businesses connected to the mid-voltage grid has been in force since last November. In February the subsidy of electricity consumption for households declined while it remained unchanged for non-household tariffs. The subsidy was reduced for the consumption of natural gas by businesses, while it remained unchanged for households. In March the electricity consumption subsidy increased slightly, while the remaining subsidies did not change.

As regards the expected impact of indirect taxation interventions, the reduction in VAT applied since June 2020 on specific goods and services has been renewed for the first half of this year. However, as one year has elapsed since its implementation last summer, no further substantial effect on prices is expected. The deduction of VAT on certain other goods and services (workshops, dance schools, etc.) from October 2021 will have a limited inhibitory effect on the increase in prices, as it concerns a small part of household expenditure. The price effect of the decrease in the mobile subscriber levy as of 1 October 2021 is more noticeable, with the relevant category showing the largest fall in prices among the categories of goods and services of the CPI at the beginning of 2022, as shown in the previous subsection. This trend will likely continue until one year after the adjustment of the levy. The prices of food products are expected to reflect in the near future, first, the reduction of VAT on fertilisers and feed from 13% to 6%, and second, the refund of the excise duty for motor oil used by farmers, measures decided before the war in Ukraine.

Regarding the expected effects of consumer demand on prices, the suspension of the solidarity levy and the reduction of social security contributions were extended this year. However, as they have been in force since last year, they no longer bring about any additional change in disposable income and therefore in consumer demand, hence prices. A small increase in income will come from the redesign of the ENFIA tax. This includes more buckets and rates to avoid heavy burden on households, while it will be paid in 10-12 instalments, the first in March each year. Revenue from the revised tax is projected to be reduced by EUR 350 million.[19] From mid-year, the minimum wage rise will also have an impact on income. Income support measures for vulnerable social groups (low-pension beneficiaries, people with disabilities, beneficiaries of minimum income, etc.) from the current month and for as long as necessary are expected to have a significant impact on income and purchasing power. Indicative of their impact, for April alone, their budget reaches €324 million, covering 1.7 million beneficiaries.

The new support measures to address the significantly higher energy costs and more broadly the high inflation will boost disposable income. In particular, the increased subsidy for electricity bills and the exceptional electricity subsidy to small and medium enterprises are expected to have a positive effect on household income and on the liquidity of businesses respectively. For April, electricity subsidies were broadened to a large extent for all types of tariffs (domestic, non-domestic). The additional interventions include an exceptional electricity subsidy of €110 million to cover most of the January-April electricity increases for small businesses. The total cost of electricity and gas subsidies for April is estimated at €636 million. The fuel consumption subsidy, through the introduction of a fuel card for natural persons, estimated at a total cost of €324 million from April and for the whole second quarter, will also boost income. Finally, a positive effect on the liquidity of businesses is expected from the extension in the repayment period of all repayable advances, with a 15% discount in case of a lump-sum payment of the outstanding amount. The total budget of the energy support measures announced in the first four months of this year is €1.9 billion. Interventions to address significantly increased energy costs and more broadly high inflation are expected to continue, with changes and adjustments, as energy prices remain high. It should be noted, however, that while all of these measures limit the impact of intense price increases on energy, they prop up a significant part of their demand, thus preventing prices from falling.

On expected developments in energy costs, the international price of Brent oil averaged $118.1 per barrel in March, up 21.5% from February, under the influence of war uncertainty and sanctions on Russia's energy exports, as it is the world's second-largest oil exporter. The euro/dollar exchange rate in March 2022 stood at 1.10, down 7.3% from the same month of 2021. As a result,

[19] Law No. 4916/2022

the average price of oil in euros stood at €107.1/barrel, recording an increase of 94.7% compared to a year ago.

According to international organisations, Russia produced about 11 million barrels of oil per day in March, but its output is expected to fall sharply from April, by 3 million barrels per day. Although Russia's oil production and export capacity will continue to be available, there is considerable uncertainty about which countries, and to what extent, will continue importing oil from Russia. Another development is that imposing sanctions on Russia's oil exports will significantly increase its stocks, which will make it necessary to stop part of its production. As long as the sanctions continue or intensify, the production restriction will be more severe. Global oil stocks have been falling since mid-2020, with an average reduction of 1.8 million barrels per day from the third quarter of 2020 to the end of 2021.

While there are strong pressures on energy markets from the above developments, OPEC is not proceeding to a greater increase in its production, ignoring a request from the US government. At a meeting at the end of March, the OPEC members, including Saudi Arabia and the United Arab Emirates, reaffirmed their agreement with Russia. OPEC+ announced that it plans to gradually increase production by 432,000 barrels per day (bpd) for the next two months. As few countries have surplus stocks, including Saudi Arabia and the UAE, and Riyadh resisting US calls to increase output faster than what is foreseen in the OPEC+ deal, oil supply is expected to fall short of demand.

By contrast, the US decided to release oil from its strategic reserves. As of this month, they announced the release of 1 million barrels per day for six months from their strategic reserves. International analysts estimate that US oil production will increase to an average of 12.0 million barrels/day in 2022 and then expand further in 2023, to 13.0 million barrels/day. The countries of the International Energy Agency, including the United States, have total reserves of about 1.5 billion barrels and they have released 60 million barrels from their reserves. Despite these interventions on the oil supply side, analysts believe that they cannot compensate for global market shortages, as oil companies from around the world, refineries, and shipping companies avoid Russian oil due to the growing uncertainty stemming from the war in Ukraine, but also under the fear of sanctions, while demand is expected to be particularly strong this year. Global oil consumption is expected to average 100.6 million barrels/day in 2022, up 3.1 million barrels/day from 2021.

To sum up, it is obvious that the trend in the price of oil and more broadly of energy goods will depend to a large extent on the development of the war in Ukraine, any future sanctions imposed on it, as well as on the strategies of the companies regarding the purchase of Russian oil and/or its trading in the global market. The degree of reaction of other oil producers to high oil prices will also play a key role in shaping oil prices, as well as the impact that macroeconomic developments may have on global oil demand.

The deteriorating outlook for recovery of global demand in the current and the following year is reflected in recent macroeconomic forecasts of international organisations. The current high prices of energy products are hampering demand and economic recovery. That said, economic activity in developed countries will be propped up for the third year by government interventions, for businesses and households. After two years of pandemic conditions, developing economies have little potential to react to a new crisis, of energy this time. As a result, the intensity of the recovery will differ significantly across regions worldwide and will overall be much milder than anticipated before the geopolitical turmoil. In the event that the war is not prolonged, the dampening of the global recovery will be milder, but the demand for energy will decline less.

20, in the baseline scenario of macroeconomic developments of IOBE, in which the war is expected to continue after the spring, with energy costs at particularly high levels over a long period of time, it is estimated that the average oil price in 2022 will reach $95/barrel from $70.8/barrel in 2021 (+34%). The euro/dollar exchange rate this year is expected to average 1.12, down 5.4% from 202121. As a result, the average price of oil in euros will reach €84.8/barrel, recording an increase of 42% compared to last year. To curb high oil prices, extensive measures are expected to be taken to support households and businesses, which will prop a significant share of disposable income and private consumption. Note also that in both forecast scenarios, no further significant outbreak of the pandemic is expected, so no generalised restrictive measures will be reintroduced. Taking into account the stabilising impact of indirect taxation on prices in the baseline forecast scenario for 2022, it is projected that the Consumer Price Index will increase particularly strongly, in the region of 7.0% to 7.8%.

Taking into account the above trends and developments in the main factors affecting consumer prices, as well as the latest forecasts of international organisations,[20] in the baseline scenario of macroeconomic developments of IOBE, in which the war is expected to continue after the spring, with energy costs at particularly high levels over a long period of time, it is estimated that the average oil price in 2022 will reach $95/barrel from $70.8/barrel in 2021 (+34%). The euro/dollar exchange rate this year is expected to average 1.12, down 5.4% from 2021.[21] As a result, the average price of oil in euros will reach €84.8/barrel, recording an increase of 42% compared to last year. To curb high oil prices, extensive measures are expected to be taken to support households and businesses, which will prop a significant share of disposable income and private consumption. Note also that in both forecast scenarios, no further significant outbreak of the pandemic is expected, so no generalised restrictive measures will be reintroduced. Taking into account the stabilising impact of indirect taxation on prices in the baseline forecast scenario for 2022, it is projected that the Consumer Price Index will increase particularly strongly, in the region of 7.0% to 7.8%.

In the alternative scenario of macroeconomic developments, the fighting is expected to end by early summer, when the increase in energy prices will also be mitigated. Subsequently, there will be fewer measures to support households and businesses against the energy crisis than in the baseline scenario. In this case, the average price of oil in 2022 is expected to reach $87/barrel from $70.8/barrel in 2021, an increase of 22.8%, while the euro/dollar exchange rate this year is expected on average to be at 1.13, down 5.4% from last year.[22] As a result, the average price of oil in euros will reach €77.7/barrel, recording an increase of 30% compared to last year. In this case and combined with the expected trends in the other factors affecting the domestic Consumer Price Index mentioned above, its average annual rate of change is projected to be within 6.2-6.8% this year.

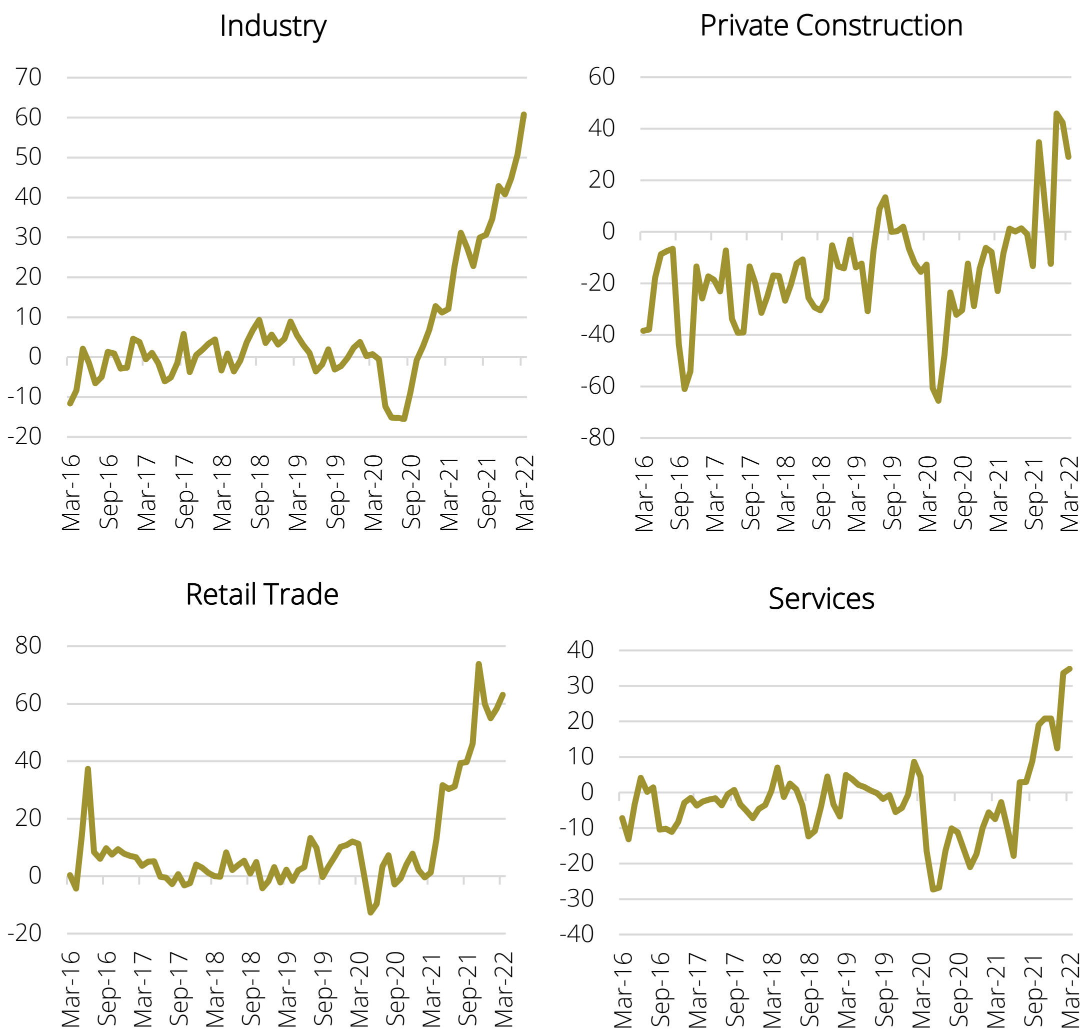
The monthly economic surveys of IOBE provide results that serve as leading indicators for the price developments in the coming period from the supply side.

[20] Short-Term Energy Outlook, US Energy Information Administration, March 2022
[21] Macroeconomic projections, ECB, March 2022
[22] Macroeconomic projections, ECB, March 2022

The quarter-on-quarter trends in price change expectations were positive in the first quarter of 2022, except for Retail Trade where the balance marginally declined. Among the remaining sectors, the balance increased markedly in Private Construction and to a lesser extent in Industry and Services. Year on year, the expectations for price developments recorded a marked positive change in all sectors, more pronounced in Retail Trade and Private Construction and still notable in the other two sectors. In more detail:

Figure 3.23

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



Source: IOBE

The quarter-on-quarter trends in price change expectations were mainly positive in the first quarter of 2022, with the relative balance increasing markedly in Private Construction and to a lesser extent in Industry and Services, while Retail Trade saw a marginal decline.

In Industry, price expectations in the first quarter of the year were significantly stronger than in the previous quarter. In particular, the index increased by 13 points in the quarter under review and stood at +52 points, 40 points higher than in the corresponding quarter of 2021. Of the companies in the sector, 2% were expecting prices to fall in the short term, while 54% (from 45%) were expected prices to rise, with the remaining 43% expecting price stability.

In Retail Trade, the balance of +60 points in price expectations for the businesses in the sector in the previous quarter declined by one point, while at the same time it was 58 points higher than in the corresponding period of 2021. Of the companies in the sector, only 2% (out of none) were expecting prices to fall in the short term, while the share of respondents expecting price growth remained at 60%, with the remaining 38% (from 40%) expecting price stability. Price expectations weakened quarter on quarter in the first quarter of 2022 in all examined sub-sectors of Retail Trade, with the exception of Vehicles-Spare Parts and Department Stores, where expectations mildly strengthened.

The average price change expectations indicator in Services in the quarter under review improved slightly from the previous quarter and stood at +27 (from +20) points, while at the same time it moved to a much higher level than in the corresponding quarter of 2021 (+35 points). In the current quarter, 3% (from just 1%) of the companies in the sector were expecting a fall in prices and 30% (from 21%) an increase. The indicator declined mildly in most examined sub-sectors of Services, with the exception of Hotels-Restaurants where it improved strongly.

Finally, in Private Construction, the mild positive balance of +11 points in the previous quarter increased significantly, to +39 points, having grown strongly compared to the corresponding level of 2021 (+51 points). In addition, 7% (from 24%) of the companies in the sector were expecting a fall in prices, while the percentage of those expecting a price rise was 47% (from 35%), with 46% (from 41%) predicting price stability.

3.6 Balance of Payments

January — December

- The Current Account deficit remained very high in 2021, close to €11.0 billion.
- Deterioration in the goods account, offset by an improvement in service, primary and secondary income accounts.

Current Account

January 2022

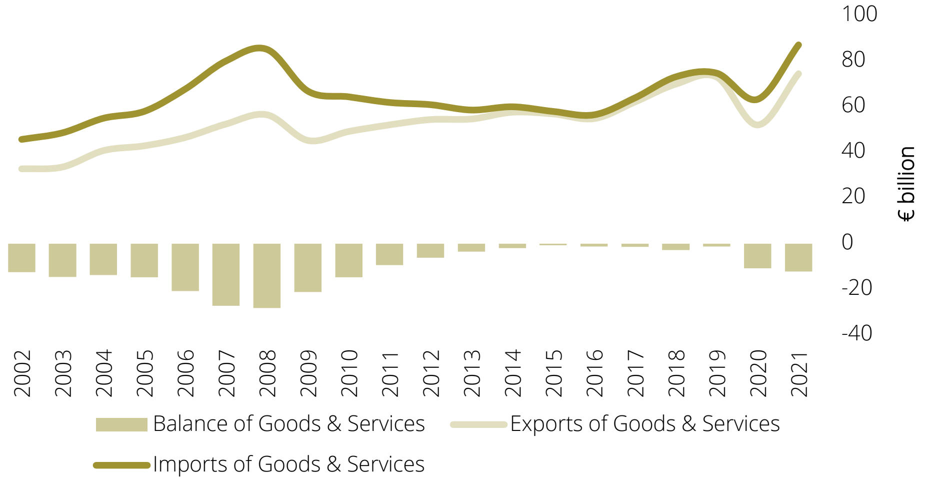
In January 2022 the current trade account deficit widened to €2.0 billion, compared with €432 million a year ago. The main reason for the deficit increase was the expansion in the deficit in the goods account by €1.5 billion, followed by a decrease in the surplus of the primary income account by €247 million, while a small increase of €126 million was recorded in the surplus of the services account.

January - December 2021

Overall in 2021, the Current Account (CA) had a deficit of €10.8 billion, compared with a deficit of €11.0 billion in 2020. The deficit remained stable at a very negative level, as while the deficit in the Goods Account expanded, the remaining accounts improved, compensating for the deterioration in the trade of goods.

Figure 3.24

Imports-Exports of Goods and Services (January - December) 2002-2021

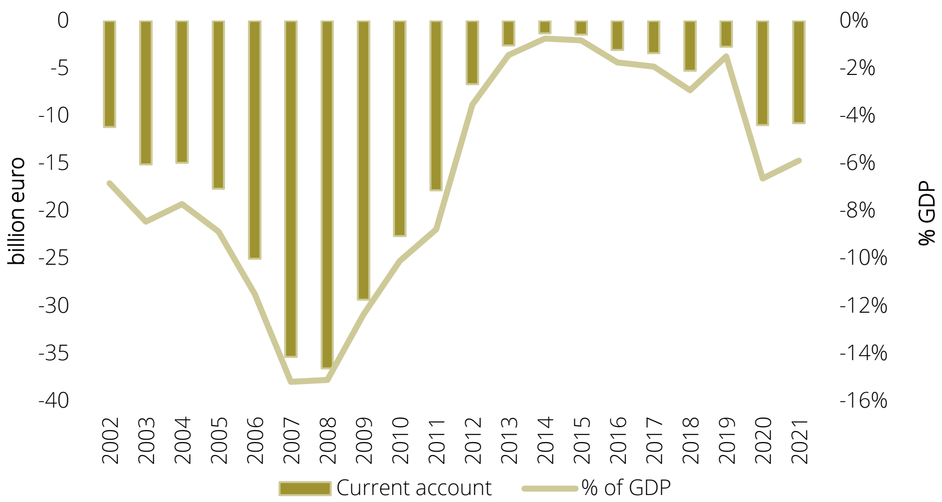


Expansion of the goods and services deficit in 2021 to €12.6 billion, compared to €11.2 billion in 2020

Source: Bank of Greece. Data processing IOBE

Figure 3.25

Current Account (January - December), 2002-2021



At €10.8 billion the current account deficit in 2021, from €11.0 billion in 2020. It accounts for 5.9% of GDP.

Source: Bank of Greece. Data processing IOBE

In detail, the deficit of the Goods Account stood at €25.6 billion in 2021, up by €7.1 billion compared to 2020, due to stronger growth in imports than exports. Exports expanded by €39.1 billion (€10.2 billion),[23] with fuel exports increasing by €4.0 billion. The imports of goods increased to €64.7 billion (€17.3 billion), while fuel imports increased by €6.7 billion. Note that fuels accounted for

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

40% of the growth in exports and imports. The deficit of the Goods Account excluding fuel and ships stood at €19.7 billion in 2020, higher by €4.5 billion.

The surplus in the Services Account increased significantly compared to the low level recorded in 2020 due to the pandemic, totalling €13.0 billion last year, growing by €5.7 billion, but still lagging behind its 2019 level, as it did not exceed 61.5%. The improvement in 2021 resulted from a strong recovery in receipts, primarily from Tourism, but also from Transport. In detail, total receipts from Services amounted to €35.0 billion, up 54.1% compared to 2020. Receipts from Travel Services more than doubled in 2021 compared to last year, with an increase of 143.2%, reaching €10.5 billion, to 58% of their level in 2019. Transport Services rose 35.6% to €18.7 billion, while receipts from Other Services reached €5.8 billion, an increase of 26.1%. Total service payments amounted to €22.0 billion, 42.6% higher than last year. Payments for Travel Services increased by 40.3% to €1.1 billion, payments for Transport Services increased 52.2% to €15.0 billion, while Other Services payments reached €5.9 billion, expanding by 23.3%. The trade relations of Greece and the EU's with Russia and Ukraine are analysed in a text box at the end of this section (box 3.4).

The Primary Income Account recorded a surplus of €643 million in 2021, compared with a deficit of €276 million in 2020. Receipts rose to €7.0 billion, from €6.3 billion in 2020, while payments fell to €6.4 billion from €6.6 billion. In detail, labour receipts increased to €220 million, investment receipts increased by 16.3% to €3.4 billion, while other primary incomes (subsidies and taxes on production) recorded an increase of 5.9%, to €3.4 billion. Payments for employment income fell to €1.3 billion (-2.0%), for investment fell by 5.8 % to €4.6 billion, while for other primary incomes they rose by 16.9% to €496 million.

The Secondary Income Account last year recorded a significant surplus of €1.2 billion, compared with a surplus of €561 million in 2020, with receipts rising by 23.2%, to €5.0 billion and payments by 7.7%, to €3.8 billion.

Capital Account

The surplus of the Capital Account[24] increased to €4.0 billion in 2021, compared to €2.7 billion a year earlier, with a significant increase in receipts by €1.8 billion, due to the disbursement of pre-financing under the Resilience and Recovery Fund (RRF), and weaker expansion of payments, by €523 million.

Finally, the Current and Capital Account, reflecting the relationship of an economy with the rest of the world as a lender or borrower, had a deficit of €6.8 billion, compared with €8.2 billion in 2020.

Financial Account

The Financial Account was in deficit in 2021, by €5.7 billion, compared with €7.7 billion in 2020.

In the sub-accounts, the residents' net assets from foreign direct investment increased by €993 million, while net liabilities to non-residents (non-residents' investments in the country) increased by €5.1 billion.

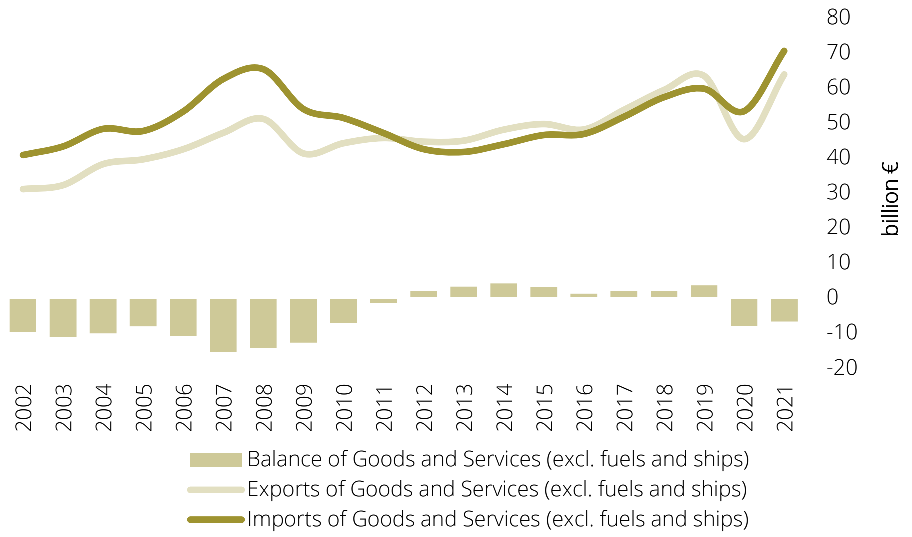
[24] The capital account shows capital transfers, i.e. unilateral receipts and payments between residents and non-residents linked to fixed capital formation. Capital transfers mainly comprise part of the transfers (receipts) from the Community budget of the European Union to the General Government (withdrawals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

Under portfolio investment, residents' receivables from abroad increased by €27.3 billion, and liabilities to non-residents increased by €3.5 billion. In the category of other investments, foreign residents' claims increased by €4.6 billion, and liabilities increased by €32.6 billion.

Finally, the country's foreign reserve assets stood at €12.7 billion at the end of January 2022.

Figure 3.26

Imports-Exports of Goods excluding fuel and ships (January - December), 2002-2021



Contraction of the deficit of the goods and services account excluding fuel to €6.7 billion, from €8.0 billion in 2020

Source: Bank of Greece. Data processing IOBE

Box 3.4 Trade in goods and services of Greece and the EU with Russia and Ukraine

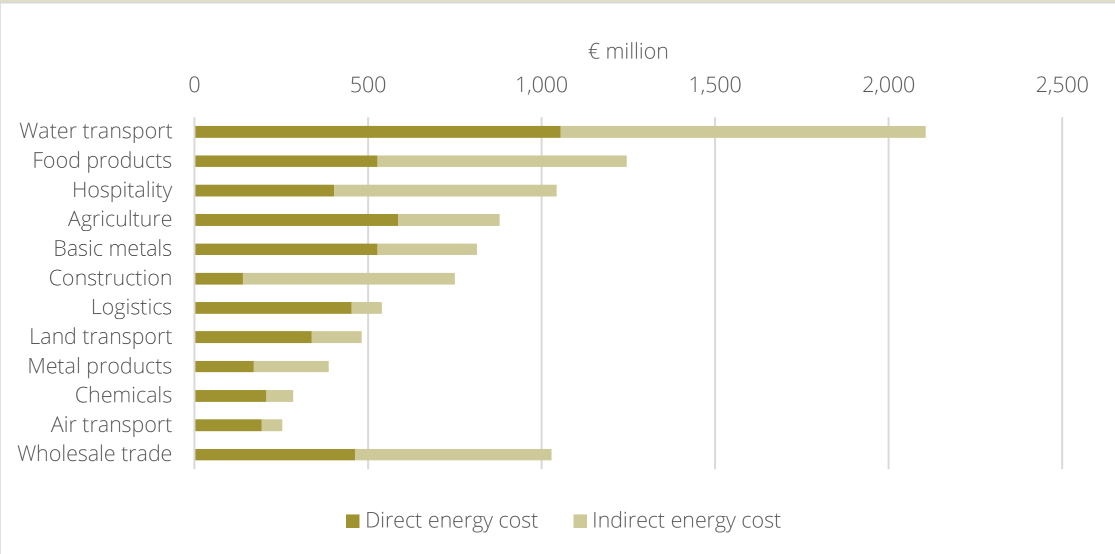
The Russian invasion of Ukraine on February 24, 2022 and the ongoing war have been unprecedented for Europe in recent decades. In addition to the very strong repercussions on Ukraine and its population, which will take decades to deal with, the war has a significant economic impact internationally. This comes from the fact that economic activity has ceased in most of Ukraine, disrupting trade flows to and from Ukraine, and much more importantly, from the imposition of sanctions by both Europe and the US on Russia and from the Russian side towards these countries, significantly affecting world trade. The most significant of these sanctions are those related to energy goods (e.g. ban on imports of Russian oil from Canada, USA, and, gradually, from the United Kingdom). That said, a rearrangement of supply chains is expected in order to meet needs that were met before the war by the two countries. In this context, the trade links between Greece and the European Union (EU27) with Russia and Ukraine are analysed, highlighting the dependencies that exist, thus also the extent of the potential impact of these developments on the exports of goods and services, as well as their availability at home.

Trade of goods

The EU27 has a trade deficit of €55 billion with Russia and a surplus of €4.7 billion with Ukraine (on average in 2017-2021). EU27 imports from Russia approached an average of €140 billion per year over the period considered, compared with exports of €84 billion, while imports from Ukraine stood at €18.6 billion and exports of goods to Ukraine amounted to €23.4 billion. Greece's trade deficit with Russia was around €3.5 billion per year in 2017-2021, with imports (approximately €3.7 billion) dominating exports (€208 million). Trade with Ukraine is significantly smaller, with imports from Ukraine at €182 million and exports to this country at €210 million. As a result, EU27 imports from Russia account for 7.4% of the Union's total exports (extra-EU trade), while its exports to Russia amount to 4.1% (Figure 3.26). In Greece, the average annual share of imports from Russia was close to the EU27 average in 2017-2021 (6.9%), while exports to Russia (0.6% of total Greek exports of goods) accounted for a much smaller share. With Ukraine, trade accounts for a much smaller part of EU27 and Greek trade flows - around 1% of EU27 imports and exports and an even lower share in Greece.

Figure 3.27

Share of imports and exports of goods of EU27 and Greece with Russia and Ukraine (2017-2021 average)



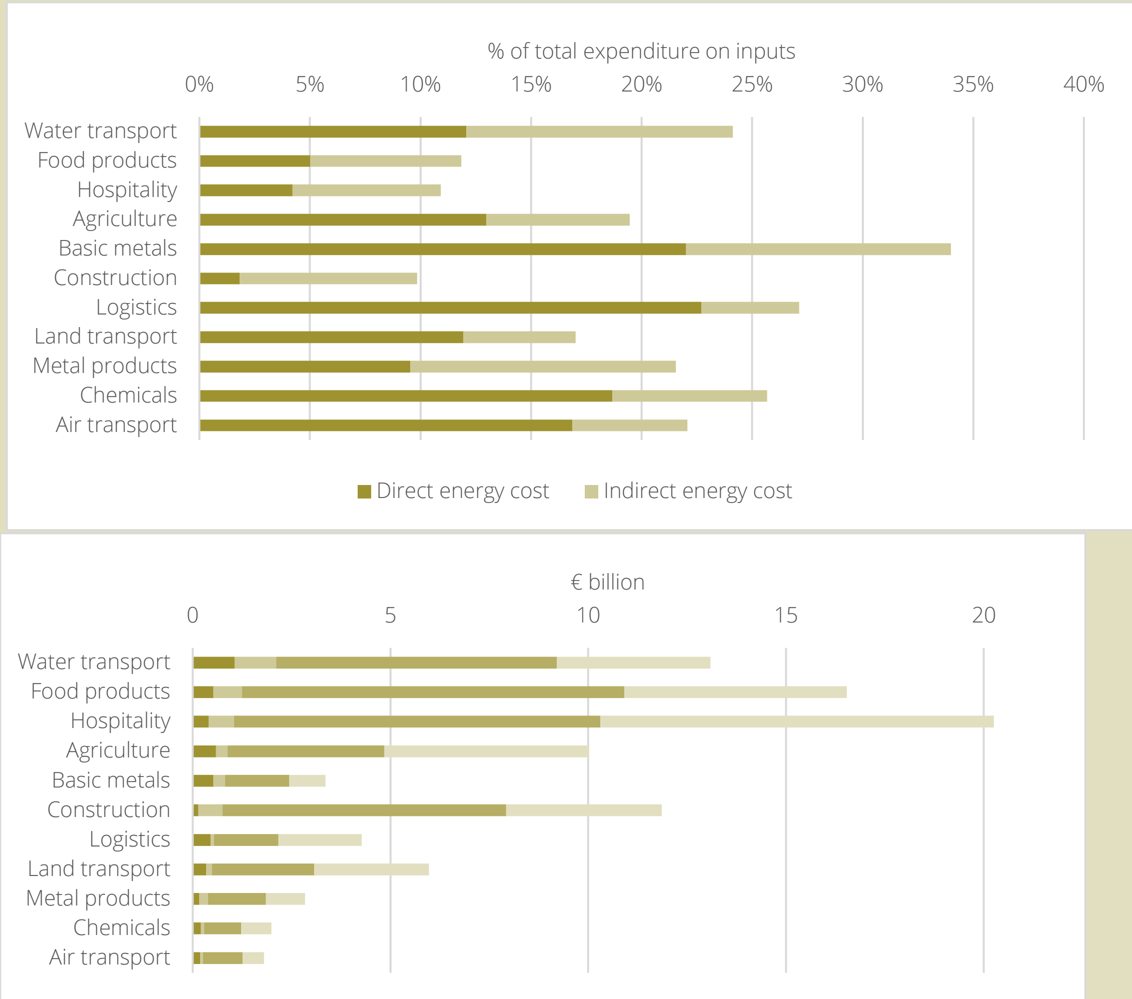
Source: Eurostat, EU trade by SITC, IOBE data processing

In addition to the overall shares of imports and exports of goods from Russia and Ukraine, their breakdown by category offers more information on any trade dependencies. In particular, Greece imports 22.9% of its fuel from Russia, showing significant import dependency on these products, while it also imports 6.4% of industrial goods and 2.4% of raw materials from that country (Figure 3.28). The dependence of the EU27 is greater in these categories, with 27.6% of its fuels, 8.1% of industrial goods and 6.8% of raw materials (excluding fuels) coming from Russia.

With Ukraine, despite the low interconnection in total trade in goods, there are goods on which the EU27 is significantly more dependent, such as oils and fats, as it imports 13% of these goods from Ukraine, with a high share of raw materials (5.3% of imports) and food (3.2%) as well. In Greece, about 3% of its imports in raw materials, as well as in oils and fats, come from Ukraine.

Figure 3.28

Import dependency (single-digit SITC codes*, 2017-2021 average)



Source: Eurostat, EU trade by SITC, IOBE data processing. * Standard international trade classification

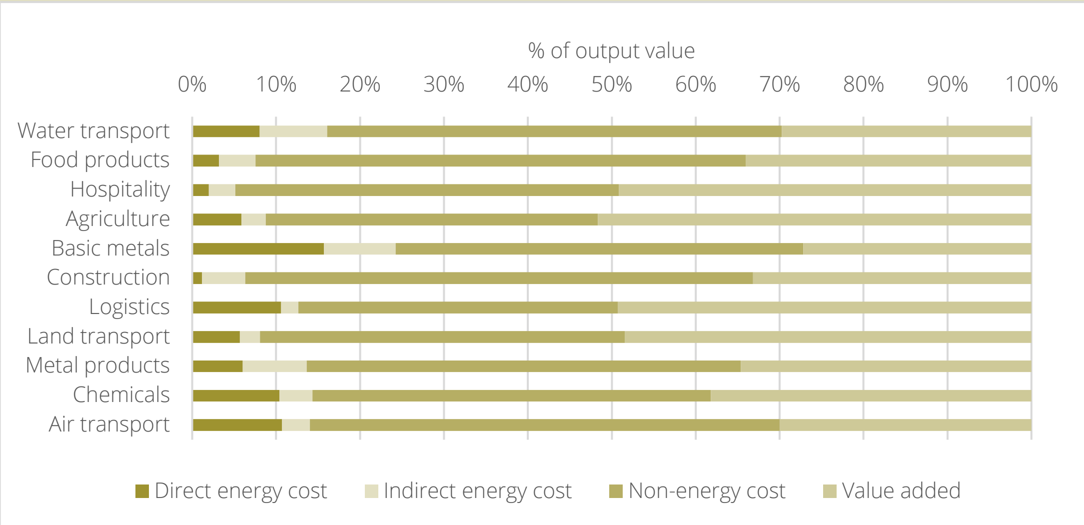
At a more detailed level of goods categories (three-digit SITC), dependency on specific goods is more pronounced. Thus, 98% of imports of coal to Greece came from Russia in 2021, highlighting significant dependence in this category, as well as more than 40% of oil and gas imports (Figure 3.29). In pipeline gas, Greece's dependence reached 66% in 2021. At the same time, 5.7% of aluminium imports domestically and 23.1% of whole wheat came from Russia. Nickel ores accounted for the largest share in the EU27 in 2021, with 81% of its imports coming from Russia, while more than 45% of imports of energy products to the EU27 come from the same country. Iron rods also have a high share of imports from Russia (44.3 %). In even greater product analysis, 99% of ammonia nitrate fertilisers and 92% of chemical ethylene oxide are imported into the EU27 from Russia.

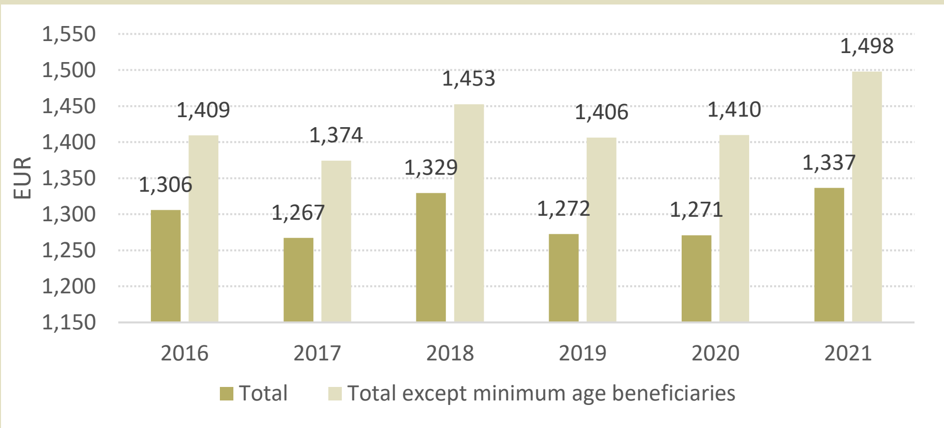
A three-digit SITC analysis of goods trade shows that half of Greece's imports of cast iron came from Ukraine last year, followed by iron products (12%) and cocoa (9.4%). In a more detailed analysis of goods, 98% of titanium ores, 96.6% of ferrosilicate-manganese and 75% of electric glass insulators are imported into Greece from Ukraine. In the EU27, 56.7% of raw food imports (oils, corn, cereals) came from Ukraine last year, followed by iron bars with 28% and firewood with 24%. Analysing further the import of goods, 91% of crude and 64.4% of processed sunflower oil imported into the EU come from Ukraine, with a significant share of the imported poultry also coming from this country, at 72%.

On the export side, at a single-digit analysis, 2.1% of the Greek exports of oils and fats of animal or vegetable origin go to Russia, followed by tobacco and beverage products with 1.7%. In the EU27, 4.6% of the exports of beverages and tobacco go to Russia, while the exports of chemicals and machinery are at around 4.5%, with the share of industrial goods slightly lower. With Ukraine, Greece's export shares are quite low, while in the EU27 the Mineral, Fuel, and Lubricants category stands out with 2.1% of the total EU27 exports.

Figure 3.29

Import dependency (three-digit SITC codes*, 2021)





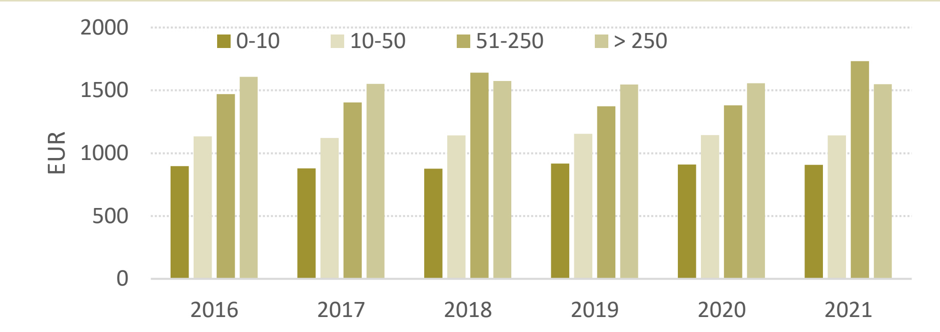
Source: Eurostat, EU trade by SITC, IOBE data processing.* Standard international trade classification

At a more detailed level (three-digit analysis), Greece has a significant export dependency on Russia in metal welding machines, as the country exports 92.8% of these products to Russia, followed by wool with 85.6%.

The EU27 has an export dependency with Russia in copper powder (88%), minerals (64.7%), live sheep and goats (60%), and clothing (59%). Greece exports 94.5% of machine parts to Ukraine and 32% of aluminium alloys. The EU27 exports to Ukraine 77% of its total exports of tar and 72.6 % of organic chemicals.

Figure 3.30

Balance of Services with Russia (2016-2019 average)



Source: Eurostat, International trade in services (BPM6)

Trade of services

On the services side, both Greece and the EU27 had an average annual surplus with Russia of €504,6 million and €14.2 billion respectively in 2016-2019 (no data available for Ukraine). Greece's receipts reached €756 million, with payments of €251.4 million, while in the EU27 revenues reached €26.1 billion and payments €11.9 billion (Figure 3.30). In relative terms, 2.7% of the EU27 service receipts stem from Russia, compared with 2.1% for Greece.

Figure 3.31

Share of Russia in Service Receipts by Category

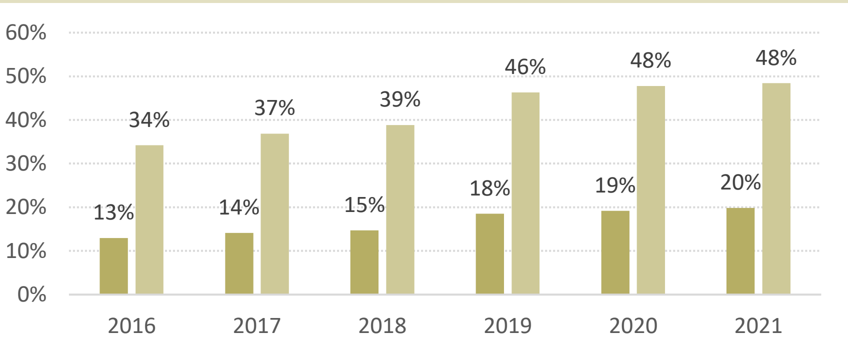


Table 3.12 Balance of payments (€million)

		January – December			January		
		2019	2020	2021	2020	2021	2022
I	CURRENT ACCOUNT (I.A + I.B + I.C + I.D)	-2,725.5	-10,964.4	-10,755.5	-1,274.5	-431.7	-1,995.1
	GOODS AND SERVICES ACCOUNT (I.A + I.B)	-1,717.4	-11,249.7	-12,632.6	-1,596.3	-1,318.8	-2,655.9
I.A	GOODS ACCOUNT (I.A.1 - I.A.2)	-22,833.3	-18,528.1	-25,623.2	-1,997.3	-1,576.8	-3,040.1
	Oil balance	-5,040.5	-3,196.0	-5,876.5	-543.2	-382.0	-968.9
	Trade balance excluding oil	-17,792.8	-15,332.1	-19,746.7	-1,454.1	-1,194.8	-2,071.2
	Ships balance	-345.1	-64.9	-19.7	-19.5	-9.1	-15.4
	Trade balance excluding ships	-22,488.2	-18,463.2	-25,603.5	-1,977.8	-1,567.7	-3,024.7
	Trade balance excluding oil and ships	-17,447.7	-15,267.2	-19,727.0	-1,434.6	-1,185.7	-2,055.8
I.A.1	Exports of Goods	32,433.6	28,904.4	39,079.8	2,718.3	2,447.0	3,313.3
	Oil	9,078.8	6,102.5	10,142.8	744.0	484.4	902.9
	Ships (sales)	91.5	153.1	121.5	3.5	2.4	6.0
	Goods excluding oil and ships	23,263.4	22,648.9	28,815.6	1,970.8	1,960.2	2,404.4
I.A.2	Imports of Goods	55,266.9	47,432.5	64,703.0	4,715.6	4,023.8	6,353.3
	Oil	14,119.3	9,298.4	16,019.3	1,287.2	866.4	1,871.7
	Ships (buying)	436.6	217.9	141.2	23.0	11.5	21.4
	Goods excluding oil and ships	40,711.1	37,916.1	48,542.5	3,405.4	3,145.9	4,460.2
I.B	SERVICES ACCOUNT (I.B.1-I.B.2)	21,115.9	7,278.3	12,990.7	401.0	258.0	384.2
I.B.1	Receipts	40,162.6	22,711.3	35,001.8	2,029.0	1,482.9	2,223.2
	Travel	18,178.8	4,318.8	10,502.7	280.6	34.2	140.1
	Transportation	17,303.1	13,814.2	18,728.1	1,394.0	1,041.5	1,595.8
	Other services	4,680.7	4,578.3	5,771.0	354.4	407.2	487.3
I.B.2	Payments	19,046.8	15,433.0	22,011.1	1,628.0	1,224.9	1,839.0
	Travel	2,743.8	792.9	1,112.5	182.9	32.5	79.3
	Transportation	11,377.4	9,873.0	15,022.1	991.7	760.7	1,311.3
	Other services	4,925.5	4,767.1	5,876.5	453.4	431.7	448.4
I.C	PRIMARY INCOME ACCOUNT (I.C.1-I.C.2)	-1,591.6	-275.9	643.2	406.3	758.7	512.0
I.C.1	Receipts	6,202.9	6,324.1	7,009.9	815.6	1,052.0	851.4
	From work (wages, compensation)	246.9	201.4	220.2	18.1	18.3	19.8
	From investments (interest, dividends, profit)	3,046.7	2,942.0	3,421.0	256.7	337.2	226.9
	Other primary income	2,909.3	3,180.7	3,368.8	540.8	696.6	604.7
I.C.2	Payments	7,794.5	6,599.9	6,366.7	409.3	293.3	339.4
	From work (wages, compensation)	1,411.6	1,336.4	1,309.7	121.1	99.0	115.7
	From investments (interest, dividends, profit)	5,975.9	4,838.8	4,560.5	242.3	155.1	174.5
	Other primary income	407.0	424.7	496.5	45.9	39.2	49.2
I.D	SECONDARY INCOME ACCOUNT (I.D.1-I.D.2)	583.5	561.2	1,233.8	-84.6	128.5	148.8
I.D.1	Receipts	3,827.9	4,064.5	5,008.2	314.3	455.4	540.0
	General government	2,361.2	2,452.7	3,561.7	180.3	232.2	201.6
	Other sectors	1,466.8	1,611.9	1,446.5	134.1	223.2	338.5
I.D.2	Payments	3,244.5	3,503.4	3,774.4	398.9	327.0	391.2
	General government	1,830.3	1,914.9	2,297.1	259.9	222.1	278.7
	Other sectors	1,414.2	1,588.5	1,477.2	139.0	104.9	112.5
II	CAPITAL ACCOUNT (II.1-II.2)	679.8	2,733.6	4,000.9	33.4	482.9	-221.9
II.1	Receipts	1,178.7	3,124.5	4,915.0	65.4	521.2	15.7
	General government	1,023.0	2,932.0	4,055.5	60.0	514.9	7.1
	Other sectors	155.8	192.5	859.5	5.4	6.4	8.7
II.2	Payments	498.9	390.9	914.1	32.0	38.4	237.7
	General government	4.9	4.4	5.0	0.4	0.3	0.9
	Other sectors	494.0	386.5	909.1	31.5	38.1	236.8
	BALANCE OF CURRENT AND CAPITAL ACCOUNT (I+II)	*-2,045.6*	*-8,230.9*	*-6,754.6*	*-1,241.1*	*51.2*	*-2,217.0*
III	FINANCIAL ACCOUNT (III.A+III.B+III.C+III.D)	-2,247.0	-7,747.7	-5,657.9	-1,717.6	-310.9	-1,798.8
III.A	DIRECT INVESTMENT*	-3,910.5	-2,332.3	-4,062.9	-351.4	-286.7	-613.3
	Assets	562.4	568.6	992.9	-45.6	12.6	21.9
	Liabilities	4,472.9	2,900.9	5,055.9	305.8	299.3	635.2
III.B	PORTFOLIO INVESTMENT*	24,231.5	48,339.5	23,829.9	912.6	3,469.9	835.4
	Assets	25,927.1	35,443.0	27,316.7	-5.8	2,538.9	3,386.4
	Liabilities	1,695.6	-12,896.5	3,486.7	-918.4	-931.0	2,551.1
III.C	OTHER INVESTMENT*	-22,652.0	-55,291.1	-27,960.9	-1,995.9	-3,414.7	-1,886.2
	Assets	-3,605.6	2,362.1	4,613.7	1,692.2	201.6	-289.5
	Liabilities	19,046.4	57,653.2	32,574.6	3,688.1	3,616.3	1,596.8
	(Loans of general government)	-4,444.8	1,342.6	-957.9	-12.0	-315.1	103.2
III.D	CHANGE IN RESERVE ASSETS**	84.0	1,536.2	2,536.0	-283.0	-79.5	-134.6
IV	BALANCE ITEMS (I +II +IV +V = 0)	-201.3	483.2	1,096.7	-476.5	-362.1	418.2
	RESERVE ASSETS (STOCK)***				7,596	9,672	12,678

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

4 THE IMPACT OF THE REVISED EUROPEAN CLIMATE POLICY ON THE GREEK INDUSTRY AND ECONOMY[25]

- The European Commission's new package of proposals 'Fit-for-55' revises climate policy instruments in order to achieve the objectives of the European Green Deal.
- The main changes concern the reduction of free allowances and the introduction of a Carbon Border Adjustment Mechanism (CBAM) as an alternative measure to protect against the risk of carbon leakage.
- These changes pose significant risks for Greek Industry. IOBE estimates show that the impact on GDP and employment can be significant.
- The complementary function of the CBAM with the system of allocation of free allowances, the coverage of the additional cost of GHG emissions paid by producers within the EU for the share of their exports to third countries, the maintenance of compensation for indirect emissions costs and better access of businesses to finance, may mitigate the economic impact.

[25] The chapter is based on a recent IOBE study on the estimated impact of the revised European climate policy on the Greek industry and economy. The study is available (in Greek) here: http://iobe.gr/research_dtl.asp?RID=249

4.1 The European green deal and the “fit for 55” package of policy proposals

The decision to accelerate the EU's path towards climate neutrality, as set out in the European Green Deal and the European Climate Law, has led to significant revisions to the current EU climate policy framework. In its "Fit for 55" policy package the European Commission has proposed additional policy measures that reinforce existing legislation and introduce new legislative initiatives to reduce greenhouse gas emissions (GHG) by at least 55% by 2030 compared to the GHG emissions level in 1990.

The proposals of the "Fit for 55" package reflect the goal of systemic transformation of the economy by taking action in all sectors (industry, transport, buildings and energy), with their main focus being on strengthening the role of EU-ETS and implementing it in sectors where substantial emission reductions have not yet been achieved (shipping, road transport and buildings).

The proposed changes lead to significant price increases in CO2 emission allowances and a reduction in free allowances granted to industries exposed to the risk of carbon leakage in the EU. The loss of competitiveness of installations in the EU due to rising production costs can lead to reduced economic activity, lower incomes and fewer jobs in the economy, but also to an increase in GHG emissions worldwide, as production shifts to countries outside the EU without (or with laxer) emission reduction commitments.

To mitigate the risk of carbon leakage, the European Commission has proposed a carbon border adjustment mechanism (EU-CBAM) which will put a carbon price on imports of a targeted selection of products with high emission intensity to reflect their carbon content (cement, aluminum, iron & steel, fertilizers and electricity). At the same time, it envisages the gradual phase out of free allowances in these sectors and products by 2035, while the support for business investments in clean energy will be strengthen by increasing funding from the EU Innovation Fund for innovative projects and infrastructure that facilitate the decarbonization of the industry, with an emphasis on projects in the sectors covered by the CBAM.

The EU-CBAM aims to level the playing field in the EU markets, counteracting differences in climate policies among countries by subjecting the covered imported goods to a carbon price similar to that faced by producers of the respective products in the EU. However, in practice the “equalization” of competition conditions and emission costs depends on several factors such as the pricing policy of companies / countries located outside the EU and the percentage of their production volumes exported to the EU, the accuracy in confirming emissions from third countries and the effective prevention of possible circumvention of the CBAM (e.g. through resource shuffling). The EU-CBAM may also be challenged within the World Trade Organization and it may provoke trade retaliation that would affect a wide range of products in addition to those covered by the EU-CBAM.

The EU-CBAM could protect better the competitiveness of carbon-intensive producers in the EU if it included an emissions reimbursement mechanism for the exports in countries outside the EU, which is lacking in the current proposal of the Commission. Moreover, the EU-CBAM, even if it leads to a level playing field for producers of raw materials in the EU, may adversely affect the competitiveness of downstream EU producers. Therefore, the introduction of the EU-CBAM poses significant risks to the value chains of the covered products but also to the EU export markets, while in addition resource shuffling and other factors could erode the protection it offers against carbon leakage.

4.2 The importance of the industrial sectors at risk of carbon leakage for the Greek economy

Activities important for the Greek industry and economy, such as oil refining, cement production and production of basic metals (iron & steel and aluminum), face a serious risk of carbon leakage. This is due to the high intensity of trade with third (non-EU) countries, as well as the high intensity of direct and indirect emissions to the value added they produce. Due to the geographical location of the country, the risk of carbon leakage is increased compared to the average European industry.

The carbon-leakage sectors have a significant presence in the Greek economy. Their share in the gross value added of the Manufacturing sector amounted to 26.9% in 2018 (3.2 billion euros), while approximately 56.6 thousand people worked in 2018 in carbon leakage sectors (15.8% of domestic Manufacturing). In 2020, their export value reached 12.2 billion euros, which is equivalent to 40% of total Greek exports of products. Moreover, 54% of exports value came from destinations outside the EU, with this percentage being particularly high in some of the sectors examined, such as cement production (83.3%) and refining of petroleum products (71.3%).

Compared to the EU average, the trade intensity index is significantly higher for the carbon leakage sectors in Greece. In particular, while for the cement industry the index is estimated at around 6.7% in the EU (on average), in Greece the index is several times higher (24.7% in 2020). Substantial differences are also observed in the trade intensity of basic iron and steel production (52.7% in Greece, compared to 25.3% in the EU), as well as in oil refining (56.7%, compared to 33.1% respectively). Therefore, the risk of carbon leakage can be considered high for the domestic industry.

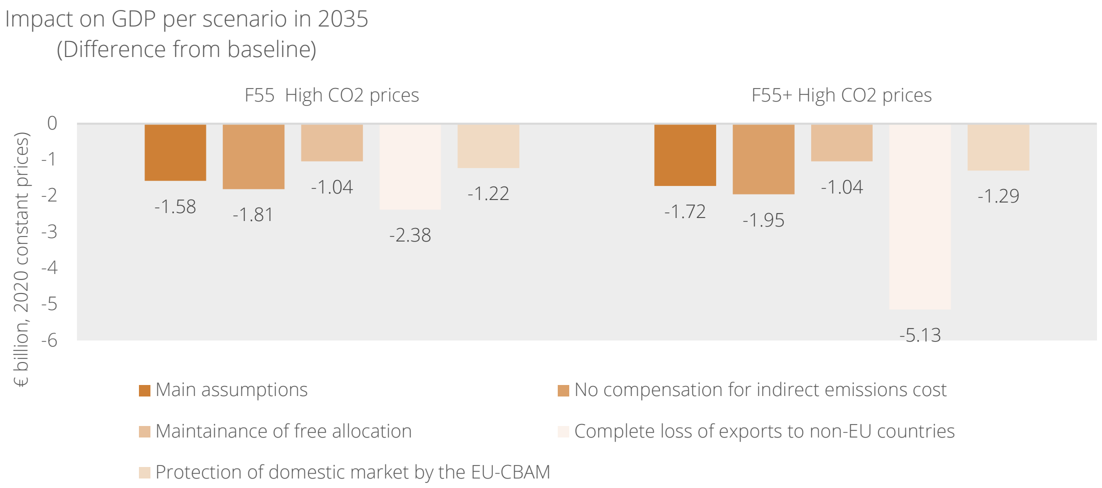
The carbon-leakage sectors in Greece show high trade and capital intensity and high labor productivity – characteristics that are indispensable to a new model of sustainable development for the country. Therefore, changes in the regulatory framework that increase the risk of carbon leakage pose significant risks for the overall contribution of domestic Manufacturing to the Greek economy, impeding at the same time the change in the country's growth model.

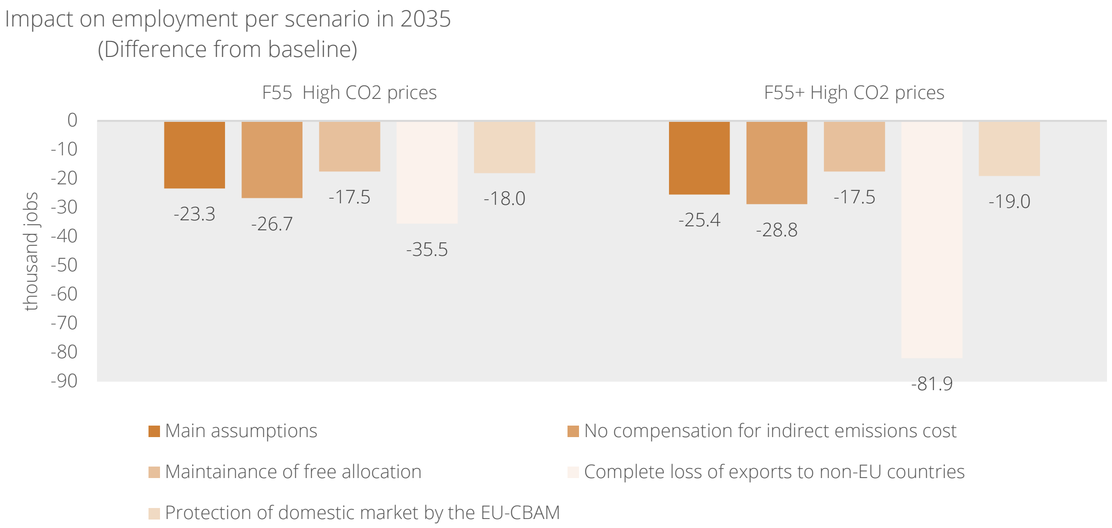
4.3 Impact assessment of the proposed changes in the climate policy on the Greek industry and economy

The quantitative assessment of the impact on the Greek industry and economy of the proposed revisions in the European Climate Policy related to the changes in the protection against carbon leakage risk is based on the analysis of alternative scenarios that are compared with a baseline scenario, which does not include the proposed changes. In particular, two key policy scenarios are identified on which four variants are considered, with an additional sensitivity analysis for CO2 emission allowance prices: The F55 policy scenario, which includes the changes envisaged in the "Fit for 55" proposal and an additional F55+ policy scenario in which the EU-CBAM is expanded to the remaining sectors in the carbon leakage list with gradual phase-out of free allocation from 2031 to 2035. Variants of the policy scenarios include the following: (a) maintenance of free allocation of emission allowances; (b) abolition of the compensation for the cost of indirect emissions; (c) a risk scenario assuming a complete loss of exports to third countries for sectors with free-allocation phase-out; and (d) a scenario with the assumption that the EU-CBAM provides full protection for domestic output directed to the Greek market.

Figure 4.1

Impact on GDP and employment in 2035





Source: IOBE

The results of the central policy scenarios F55 and F55+ suggest that the impact of the changes in the carbon leakage protection framework may be significant for the domestic industry and in particular for the sectors included in the EU-CBAM from the start or at a later stage – with considerable additional implications for domestic economic activity. The impact (loss) on GDP in the F55 scenario, compared to the baseline scenario, is estimated at 1.58 billion euros in 2035 (0.75% of GDP) in the case of the higher CO2 emission allowance prices that are likely to prevail over the next years. The possible inclusion of the remaining carbon leakage sectors in the EU-CBAM in 2031 with the complete phase-out of free allocation by 2035 (scenario F55+) increases the estimate of the impact on GDP to 1.7 billion euros in 2035 (0.82% of GDP). Respectively, in the policy scenario F55 the impact on employment is estimated to reach 23,320 jobs by 2035 (0.52% of total employment), while the inclusion of the remaining carbon leakage sectors to the EU-CBAM combined with the phase-out in free allocation is increasing the estimated losses to 25,430 jobs in 2035 (Figure 4.1).

The analysis also shows that a possible abolition of the protection framework provided by the compensation of indirect emission costs, would widen the negative effects, especially in certain sectors with high electricity consumption, creating additional risks for the Greek industry and economy.

The lack of export protection implies that losses to the Greek economy can be significantly higher. The impact on GDP in the F55 policy scenario under the assumption of complete loss of exports to third countries is estimated at 2.38 billion euros in 2035 (1.13% of GDP) in the case of higher CO2 emission allowance prices. A likely inclusion of other emission-intensive sectors in the EU-CBAM in 2031 with complete phase-out of free allowances by 2035 (scenario F55+) expands the estimate of the impact on GDP to 5.13 billion euros in 2035 (2.6% of GDP), mainly through the indirect and induced effects on the economy. Respectively, in the F55 scenario the impact on employment is estimated to reach 35,100 jobs in 2035 (0.79% of total employment), while the extension of the EU-CBAM and the phase-out of free allowances to all emission-intensity sectors (scenario F55+) increases the losses to 81.9 thousand jobs in 2035 (1.9% of total employment).

The impact on the economy, as well as the risks, are mitigated by maintaining the allocation of free allowances, even with stricter criteria compared to the current policy framework, as well as by ensuring the effective implementation of CBAM in the domestic market. A significant part of the impact estimated in each scenario directly affects domestic Manufacturing, due to the reduction in the output of carbon leakage sectors and their industrial suppliers. The estimates show that the Gross Value Added (GVA) of Manufacturing decreases in all scenarios, impeding the goal of significantly enhancing the participation of Manufacturing in the Greek economy in the coming years. Finally, the results of the analysis show that the economic benefits from the utilization of the additional revenues that the State is estimated to receive by implementing the new policies for dealing with the risk of carbon leakage, mitigate only to a small extent the estimated economic impact of these policies.

4.4 Policy recommendations

The significant impact on the Greek economy, stemming from the revision of the EU policy framework that currently protects key industrial sectors against the risk of carbon leakage, would be mitigated, in the first place, by the following:

- Thorough evaluation of the EU-CBAM's effectiveness to reduce the risk of carbon leakage after its initial transitional phase and suspending its implementation if this condition is not fulfilled.
- Complementary operation of the EU-CBAM with free allocation, without the implementation of the gradual phase-out of free allowances, until it is proven that the EU-CBAM works effectively to protect against the risk of carbon leakage.
- Compensation for the additional costs of GHG emissions paid by producers within the EU for the share of their exports to third countries. Otherwise, it is objectively impossible to equalize the cost of emissions, thus creating competitiveness losses which are particularly serious in the case of Greece.

- Maintain the compensation for indirect emission costs and include indirect emissions in the EU-CBAM only when the costs of indirect emissions will have been significantly reduced, in line with the decarbonization of the electricity sector in the EU and Greece.
- Monitoring and addressing the indirect risk of carbon leakage associated with increased imports from third countries into semi-finished or finished products that use inputs that incorporate high direct and indirect emission costs.
- Implementation of complementary measures such as Carbon Contracts for Differences (CCDs) funded by the Innovation Fund.
- Operation of market mechanisms to access and fully cover the loads of electricity-intensive industries with ‘clean’ energy at competitive prices.

In the long run, the policy measures that will be implemented will accelerate technological innovations to reduce greenhouse gas emissions so that they are viable at an industrial scale with reasonable cost. Until that happens, the cost of the transition to climate neutrality must be taken into account since it greatly affects the competitiveness of domestic emissions-intensive sectors.

Maintaining competitiveness will ultimately strengthen the efforts to implement the necessary adjustments, but also to take advantage of opportunities that arise in the process of this transition. Critical factors in this context are the achievement of a broad consensus and real support and implementation of international climate agreements from more non-EU countries, access to finance, implementation of financial support measures for the adoption of new low-carbon technologies and the provision of predictable signals from carbon pricing to accelerate innovation and investment.

APPENDIX

Table 1: GDP Rate of Change

	Annual data (%)							
	2014	2015	2016	2017	2018	2019	2020	2021
Austria	0.7	1.0	2.0	2.3	2.5	1.5	-6.7	4.5
Belgium	1.6	2.0	1.3	1.6	1.8	2.1	-5.7	6.3
Bulgaria	1.0	3.4	3.0	2.8	2.7	4.0	-4.4	4.2
France	1.0	1.1	1.1	2.3	1.9	1.8	-7.9	7.0
Germany	2.2	1.5	2.2	2.7	1.1	1.1	-4.6	2.9
Denmark	1.6	2.3	3.2	2.8	2.0	2.1	-2.1	4.7
Czech Republic	2.3	5.4	2.5	5.2	3.2	3.0	-5.8	3.3
EU 27	1.6	2.3	2.0	2.8	2.1	1.8	-5.9	5.3
Greece	0.5	-0.2	-0.5	1.1	1.7	1.8	-9.0	8.3
Estonia	3.0	1.9	3.2	5.8	4.1	4.1	-3.0	8.3
Euro area	1.4	2.0	1.9	2.6	1.8	1.6	-6.4	5.3
Ireland	8.7	25.2	2.0	8.9	9.0	4.9	5.9	13.5
Spain	1.4	3.8	3.0	3.0	2.3	2.1	-10.8	5.1
Italy	0.0	0.8	1.3	1.7	0.9	0.5	-9.0	6.6
Croatia	-0.3	2.5	3.5	3.4	2.9	3.5	-8.1	10.4
Cyprus	-1.8	3.4	6.5	5.9	5.7	5.3	-5.0	5.5
Latvia	1.9	3.9	2.4	3.3	4.0	2.5	-3.8	4.7
Lithuania	3.5	2.0	2.5	4.3	4.0	4.6	-0.1	5.0
Luxembourg	2.6	2.3	5.0	1.3	2.0	3.3	-1.8	6.9
Malta	7.6	9.6	3.4	11.1	6.0	5.9	-8.3	9.4
Netherlands	1.4	2.0	2.2	2.9	2.4	2.0	-3.8	5.0
Hungary	4.2	3.7	2.2	4.3	5.4	4.6	-4.5	7.1
Poland	3.4	4.2	3.1	4.8	5.4	4.7	-2.5	5.7
Portugal	0.8	1.8	2.0	3.5	2.8	2.7	-8.4	4.9
Romania	3.6	3.0	4.7	7.3	4.5	4.2	-3.7	5.9
Slovakia	2.7	5.2	1.9	3.0	3.8	2.6	-4.4	3.0
Slovenia	2.8	2.2	3.2	4.8	4.4	3.3	-4.2	8.1
Sweden	2.7	4.5	2.1	2.6	2.0	2.0	-2.9	4.8
Finland	-0.4	0.5	2.8	3.2	1.1	1.2	-2.3	3.5

Table 2: General Government Debt as % of GDP

	Annual data (%)							
	2014	2015	2016	2017	2018	2019	2020	2021
Austria	84.0	84.9	82.8	78.5	74.0	70.6	83.2	84.0
Belgium	107.0	105.2	105.0	102.0	99.9	97.7	112.8	107.0
Bulgaria	27.0	25.9	29.1	25.1	22.1	20.0	24.7	27.0
France	94.9	95.6	98.0	98.1	97.8	97.5	115.0	94.9
Germany	75.3	72.0	69.0	64.7	61.3	58.9	68.7	75.3
Denmark	44.3	39.8	37.2	35.9	34.0	33.6	42.1	44.3
Czech Republic	41.9	39.7	36.6	34.2	32.1	30.0	37.7	41.9
EU 27	86.5	84.7	83.9	81.3	79.3	77.2	90.1	86.5
Greece	180.3	176.7	180.5	179.5	186.4	180.7	206.3	180.3
Estonia	10.6	10.1	10.0	9.1	8.2	8.6	19.0	10.6
Euro area	92.7	90.8	90.0	87.5	85.5	83.6	97.3	92.7
Ireland	104.3	76.7	74.3	67.8	63.1	57.2	58.4	104.3
Spain	100.7	99.3	99.2	98.6	97.5	95.5	120.0	100.7
Italy	135.4	135.3	134.8	134.2	134.4	134.3	155.6	135.4
Croatia	83.9	83.3	79.8	76.7	73.3	71.1	87.3	83.9
Cyprus	109.1	107.2	103.1	92.9	98.4	91.1	115.3	109.1
Latvia	41.6	37.1	40.4	39.0	37.1	36.7	43.2	41.6
Lithuania	40.5	42.5	39.7	39.1	33.7	35.9	46.6	40.5
Luxembourg	21.9	21.1	19.6	21.8	20.8	22.3	24.8	21.9
Malta	62.1	56.3	54.6	47.7	43.6	40.7	53.4	62.1
Netherlands	67.9	64.6	61.9	56.9	52.4	48.5	54.3	67.9
Hungary	76.5	75.7	74.8	72.1	69.1	65.5	80.1	76.5
Poland	51.1	51.3	54.2	50.6	48.8	45.6	57.4	51.1
Portugal	132.9	131.2	131.5	126.1	121.5	116.6	135.2	132.9
Romania	39.2	37.8	37.3	35.1	34.7	35.3	47.4	39.2
Slovakia	53.7	51.8	52.4	51.6	49.6	48.1	59.7	53.7
Slovenia	80.3	82.6	78.5	74.2	70.3	65.6	79.8	80.3
Sweden	45.0	43.7	42.3	40.7	38.9	34.9	39.7	45.0
Finland	59.8	63.6	63.2	61.2	59.8	59.5	69.5	59.8

Table 3: General government balance as % of GDP

	Annual data (%)							
	2014	2015	2016	2017	2018	2019	2020	2021
Austria	-2.7	-1.0	-1.5	-0.8	0.2	0.6	-8.3	-2.7
Belgium	-3.1	-2.4	-2.4	-0.7	-0.8	-1.9	-9.1	-3.1
Bulgaria	-5.4	-1.9	0.3	1.6	1.7	2.1	-4.0	-5.4
France	-3.9	-3.6	-3.6	-3.0	-2.3	-3.1	-9.1	-3.9
Germany	0.6	1.0	1.2	1.3	1.9	1.5	-4.3	0.6
Denmark	1.1	-1.2	0.1	1.8	0.8	4.1	-0.2	1.1
Czech Republic	-2.1	-0.6	0.7	1.5	0.9	0.3	-5.6	-2.1
EU 27	-2.4	-1.9	-1.4	-0.8	-0.4	-0.5	-6.9	-2.4
Greece	-3.6	-5.9	0.2	0.6	0.9	1.1	-10.1	-3.6
Estonia	0.7	0.1	-0.4	-0.5	-0.6	0.1	-5.6	0.7
Euro area	-2.5	-2.0	-1.5	-0.9	-0.4	-0.6	-7.2	-2.5
Ireland	-3.6	-2.0	-0.8	-0.3	0.1	0.5	-4.9	-3.6
Spain	-5.9	-5.2	-4.3	-3.0	-2.5	-2.9	-11.0	-5.9
Italy	-3.0	-2.6	-2.4	-2.4	-2.2	-1.5	-9.6	-3.0
Croatia	-5.5	-3.4	-0.9	0.8	0.2	0.3	-7.4	-5.5
Cyprus	-8.8	-0.9	0.3	1.9	-3.5	1.3	-5.7	-8.8
Latvia	-1.6	-1.4	0.2	-0.8	-0.8	-0.6	-4.5	-1.6
Lithuania	-0.6	-0.3	0.3	0.4	0.5	0.5	-7.2	-0.6
Luxembourg	1.3	1.3	1.9	1.4	3.0	2.3	-3.5	1.3
Malta	-1.5	-0.8	1.1	3.2	1.9	0.5	-9.7	-1.5
Netherlands	-2.3	-2.1	0.0	1.3	1.4	1.7	-4.2	-2.3
Hungary	-2.8	-2.0	-1.8	-2.5	-2.1	-2.1	-8.0	-2.8
Poland	-3.6	-2.6	-2.4	-1.5	-0.2	-0.7	-7.1	-3.6
Portugal	-7.4	-4.4	-1.9	-3.0	-0.3	0.1	-5.8	-7.4
Romania	-1.2	-0.6	-2.6	-2.6	-2.9	-4.4	-9.4	-1.2
Slovakia	-3.1	-2.7	-2.6	-1.0	-1.0	-1.3	-5.5	-3.1
Slovenia	-5.5	-2.8	-1.9	-0.1	0.7	0.4	-7.7	-5.5
Sweden	-1.5	0.0	1.0	1.4	0.8	0.6	-2.8	-1.5
Finland	-3.0	-2.4	-1.7	-0.7	-0.9	-0.9	-5.5	-3.0

Table 4: Percentage of Population in Poverty or Social Exclusion * (see last page)

	Annual data (%)							
	2013	2014	2015	2016	2017	2018	2019	2020
Austria	18.8	19.2	18.3	18.0	18.1	17.5	16.9	17.5
Belgium	20.8	21.2	21.1	20.9	20.6	20.0	19.5	18.9
Bulgaria	48.0	40.1	41.3	40.4	38.9	32.8	32.8	32.1
France	18.1	18.5	17.7	18.2	17.0	17.4	17.9	18.2
Germany	20.3	20.6	20.0	19.7	19.0	18.7	17.4	24.0
Denmark	18.3	17.9	17.7	16.8	17.2	17.0	16.3	15.9
Czech Republic	14.6	14.8	14.0	13.3	12.2	12.2	12.5	11.9
EU 27	24.6	24.5	23.8	23.7	22.5	21.6	20.9	22.0
Greece	35.7	36.0	35.7	35.6	34.8	31.8	30.0	28.8
Estonia	23.5	26.0	24.2	24.4	23.4	24.4	24.3	23.3
Euro area	23.1	23.5	23.1	23.1	22.1	21.6	20.8	22.4
Ireland	29.9	28.3	26.2	24.4	22.7	21.1	20.6	20.0
Spain	27.3	29.2	28.6	27.9	26.6	26.1	25.3	26.4
Italy	28.5	28.3	28.7	30.0	28.9	27.3	25.6	25.3
Croatia	29.9	29.3	29.1	27.9	26.4	24.8	23.3	23.2
Cyprus	27.8	27.4	28.9	27.7	25.2	23.9	22.3	21.3
Latvia	35.1	32.7	30.9	28.5	28.2	28.4	27.3	26.0
Lithuania	30.8	27.3	29.3	30.1	29.6	28.3	26.3	24.8
Luxembourg	19.0	19.0	18.5	19.1	19.4	20.7	20.6	20.9
Malta	24.6	23.9	23.0	20.3	19.3	19.0	20.1	19.0
Netherlands	15.9	16.5	16.4	16.7	17.0	16.7	16.5	16.1
Hungary	34.8	31.8	28.2	26.3	25.6	19.6	18.9	17.8
Poland	25.8	24.7	23.4	21.9	19.5	18.9	18.2	17.3
Portugal	27.5	27.5	26.6	25.1	23.3	21.6	21.6	19.8
Romania	41.9	40.3	37.4	38.8	35.7	32.5	31.2	30.4
Slovakia	19.8	18.4	18.4	18.1	16.3	16.3	16.4	14.8
Slovenia	20.4	20.4	19.2	18.4	17.1	16.2	14.4	15.0
Sweden	18.3	18.2	18.6	18.3	17.7	18.0	18.8	17.9
Finland	16.0	17.3	16.8	16.6	15.7	16.5	15.6	16.0

Table 5: Inflation

	Annual data (%)					January - August	Change (%)	
	2016	2017	2018	2019	2020	2021	2021/20	2020/19
Austria	1.0	2.2	2.1	1.5	1.4	2.8	1.4	-0.1
Belgium	1.8	2.2	2.3	1.2	0.4	3.2	2.8	-0.8
Bulgaria	-1.3	1.2	2.6	2.5	1.2	2.8	1.6	-1.3
France	0.3	1.2	2.1	1.3	0.5	2.1	1.6	-0.8
Germany	0.4	1.7	1.9	1.4	0.4	3.2	2.8	-1.0
Denmark	0.0	1.1	0.7	0.7	0.3	1.9	1.6	-0.4
Czech Republic	0.6	2.4	2.0	2.6	3.3	3.3	0.0	0.7
EU 27	0.2	1.6	1.8	1.4	0.7	2.9	2.2	-0.7
Greece	0.0	1.1	0.8	0.5	-1.3	0.6	1.9	-1.8
Estonia	0.8	3.7	3.4	2.3	-0.6	4.5	5.1	-2.9
Euro area	0.2	1.5	1.8	1.2	0.3	2.6	2.3	-0.9
Ireland	-0.2	0.3	0.7	0.9	-0.5	2.4	2.9	-1.4
Spain	-0.3	2.0	1.7	0.8	-0.3	3.0	3.3	-1.1
Italy	-0.1	1.3	1.2	0.6	-0.1	1.9	2.0	-0.7
Croatia	-0.6	1.3	1.6	0.8	0.0	2.7	2.7	-0.8
Cyprus	-1.2	0.7	0.8	0.5	-1.1	2.3	3.4	-1.6
Latvia	0.1	2.9	2.6	2.7	0.1	3.2	3.1	-2.6
Lithuania	0.7	3.7	2.5	2.2	1.1	4.6	3.5	-1.1
Luxembourg	0.0	2.1	2.0	1.6	0.0	3.5	3.5	-1.6
Malta	0.9	1.3	1.7	1.5	0.8	0.7	-0.1	-0.7
Netherlands	0.1	1.3	1.6	2.7	1.1	2.8	1.7	-1.6
Hungary	0.4	2.4	2.9	3.4	3.4	5.2	1.8	0.0
Poland	-0.2	1.6	1.2	2.1	3.7	5.2	1.5	1.6
Portugal	0.6	1.6	1.2	0.3	-0.1	0.9	1.0	-0.4
Romania	-1.1	1.1	4.1	3.9	2.3	4.1	1.8	-1.6
Slovakia	-0.5	1.4	2.5	2.8	2.0	2.8	0.8	-0.8
Slovenia	-0.2	1.6	1.9	1.7	-0.3	2.0	2.3	-2.0
Sweden	1.1	1.9	2.0	1.7	0.7	2.7	2.0	-1.0
Finland	0.4	0.8	1.2	1.1	0.4	2.1	1.7	-0.7

Table 6: GDP per Capita (in PPS, EE-27 =1)

	Annual data (%)							
	2014	2015	2016	2017	2018	2019	2020	2021
Austria	1.11	1.11	1.12	1.13	1.13	1.13	1.14	1.15
Belgium	1.12	1.11	1.12	1.13	1.13	1.13	1.12	1.11
Bulgaria	0.92	0.94	0.96	0.98	1.00	1.04	1.05	1.08
France	1.13	1.12	1.12	1.12	1.11	1.09	1.09	1.09
Germany	1.07	1.08	1.08	1.08	1.08	1.10	1.10	1.11
Denmark	10.23	10.16	10.20	10.01	9.98	9.98	9.93	9.88
Czech Republic	17.73	18.00	18.11	18.09	18.24	18.61	19.14	19.38
EU 27	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Greece	0.85	0.85	0.85	0.84	0.83	0.83	0.83	0.82
Estonia	0.74	0.75	0.76	0.78	0.79	0.81	0.80	0.82
Euro area	1.05	1.05	1.05	1.05	1.05	1.05	1.06	1.05
Ireland	1.14	1.13	1.14	1.16	1.17	1.22	1.20	1.18
Spain	0.92	0.92	0.93	0.92	0.93	0.93	0.94	0.94
Italy	1.03	1.03	1.01	1.00	1.00	1.00	0.99	0.98
Croatia	4.95	4.89	4.87	4.84	4.88	4.88	4.86	4.91
Cyprus	0.95	0.92	0.90	0.90	0.90	0.91	0.92	0.92
Latvia	0.69	0.69	0.70	0.71	0.72	0.74	0.74	0.76
Lithuania	0.62	0.62	0.63	0.64	0.66	0.67	0.68	0.69
Luxembourg	1.23	1.23	1.23	1.24	1.25	1.27	1.29	1.28
Malta	0.82	0.83	0.84	0.85	0.87	0.86	0.88	0.88
Netherlands	1.13	1.13	1.15	1.14	1.15	1.17	1.16	1.15
Hungary	180.62	184.40	190.15	198.11	205.09	213.35	222.69	232.10
Poland	2.47	2.46	2.50	2.54	2.58	2.63	2.68	2.75
Portugal	0.81	0.81	0.82	0.84	0.84	0.85	0.85	0.86
Romania	2.27	2.31	2.30	2.35	2.46	2.52	2.56	2.62
Slovakia	0.68	0.68	0.72	0.75	0.78	0.79	0.81	0.81
Slovenia	0.83	0.83	0.83	0.83	0.84	0.84	0.84	0.85
Sweden	12.18	12.32	12.71	12.89	13.07	13.23	13.09	13.02
Finland	1.27	1.26	1.27	1.26	1.26	1.27	1.26	1.25

Table 7: Average Labour Productivity (euro per hour of work, EE-27 =100)

	Annual data							
	2014	2015	2016	2017	2018	2019	2020	2021
Austria	117.0	117.4	117.8	115.8	116.5	115.5	114.5	110.9
Belgium	131.5	131.7	130.9	129.6	129.3	129.4	128.9	132.5
Bulgaria	44.3	44.7	45.9	46.2	47.7	49.1	50.8	51.4
France	116.4	115.8	115.5	114.7	115.2	117.7	115.5	115.1
Germany	106.5	105.3	106.0	106.3	106.0	103.8	104.6	103.2
Denmark	115.7	115.0	115.0	117.2	116.7	115.5	121.3	119.3
Czech Republic	80.0	80.5	80.5	82.5	83.8	85.6	85.8	85.4
EU 27	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Greece	77.8	78.2	73.7	74.2	71.0	70.5	66.5	69.3
Estonia	75.1	71.9	73.3	74.5	76.8	77.9	80.8	84.8
Euro area	107.5	107.2	107.1	106.8	106.3	105.7	105.0	104.9
Ireland	146.8	188.8	181.5	186.9	193.2	192.5	213.7	221.8
Spain	103.5	102.3	102.0	101.9	99.8	98.1	94.3	93.2
Italy	107.9	106.7	108.3	107.4	106.4	105.6	102.9	104.2
Croatia	73.3	73.2	74.7	74.9	74.5	74.4	71.6	74.9
Cyprus	84.3	85.3	87.5	86.7	85.4	85.3	82.1	82.0
Latvia	64.7	64.8	65.7	67.4	68.7	69.1	70.1	73.5
Lithuania	74.6	72.9	71.9	75.2	76.6	78.8	81.8	83.5
Luxembourg	177.1	177.0	175.6	170.1	164.8	159.5	162.0	170.5
Malta	92.8	97.6	96.4	97.1	96.1	96.3	88.5	90.3
Netherlands	113.7	112.9	110.7	110.5	110.0	108.4	111.5	111.0
Hungary	71.8	71.4	68.1	67.9	69.5	70.6	71.6	72.3
Poland	73.5	74.6	74.2	75.0	76.8	79.5	81.7	82.3
Portugal	79.1	78.4	78.0	76.0	75.9	76.3	74.5	71.7
Romania	56.9	58.6	63.0	66.0	68.7	72.5	75.2	84.4
Slovakia	84.2	83.7	77.1	73.9	72.9	72.5	73.5	72.5
Slovenia	81.6	80.7	81.0	81.8	82.2	82.5	82.7	84.0
Sweden	115.4	116.8	113.6	111.7	110.9	111.2	116.0	116.6
Finland	107.9	107.7	108.2	109.7	108.1	105.6	110.5	109.7

Table 8: Employment Rate for People aged 20-64 (*)

	Annual data (%)			Q3			Change (%)	
	2018	2019	2020	2019	2020	2021	2021/20	2020/19
Austria	76.2	76.8	75.5	77.0	75.8	76.8	1.0	-1.2
Belgium	69.7	70.5	70.0	70.5	69.9	71.6	1.7	-0.6
Bulgaria	72.4	75.0	73.4	74.9	73.8	73.6	-0.2	-1.1
France	71.3	71.6	71.4	72.0	71.8	73.7	1.9	-0.2
Germany	79.9	80.6	79.2	80.9		80.7		
Denmark	77.5	78.3	77.8	78.8	78.2	80.3	2.1	-0.6
Czech Republic	79.9	80.3	79.7	80.5	79.7	81.0	1.3	-0.8
EU 27	72.3	73.1	72.2	73.3	72.5	74.1	1.6	-0.8
Greece	59.5	61.2	61.1	61.2	61.5	64.6	3.1	0.3
Estonia	79.1	79.7	78.2	81.0	78.7	80.9	2.2	-2.3
Euro area	71.9	72.6	71.5	72.9	71.8	73.7	1.9	-1.1
Ireland	74.1	75.1	73.4	75.7	73.6	78.0	4.4	-2.1
Spain	67.0	68.0	65.7	68.5	66.2	69.1	2.9	-2.3
Italy	63.0	63.5	62.6	63.7	62.9	64.1	1.2	-0.8
Croatia	65.2	66.7	66.9	67.0	66.2	69.0	2.8	-0.8
Cyprus	73.9	75.7	74.9	76.0	75.0	77.6	2.6	-1.0
Latvia	77.8	78.2	76.7	77.9	77.1	75.7	-1.4	-0.8
Lithuania	76.8	77.4	77.0	78.4	76.4	78.0	1.6	-2.0
Luxembourg	72.1	72.8	72.1	72.9	73.5	74.3	0.8	0.6
Malta	75.5	76.8	77.3	77.3	77.5	80.4	2.9	0.2
Netherlands	79.2	80.1	80.0	80.4	80.1	82.4	2.3	-0.3
Hungary	74.4	75.3	75.0	75.6	75.7	79.9	4.2	0.1
Poland	72.2	73.0	73.6	73.4	74.4	76.2	1.8	1.0
Portugal	75.4	76.1	74.7	76.3	75.3	76.8	1.5	-1.0
Romania	69.9	70.9	70.8	71.1	70.9	67.3	-3.6	-0.2
Slovakia	72.4	73.4	72.5	73.6	72.7	76.1	3.4	-0.9
Slovenia	75.4	76.4	75.6	76.2	75.8	77.2	1.4	-0.4
Sweden	82.4	82.1	80.8	81.8	80.7	81.2	0.5	-1.1
Finland	76.3	77.2	76.5	77.3	76.5	77.6	1.1	-0.8

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

Table 9: Employment rate for people aged 55-64 (*)

	Annual data (%)						Change (%)	
	2016	2017	2018	2019	2020	2021		
Austria	49.2	51.3	54.0	54.5	54.7	55.4	0.7	0.2
Belgium	45.4	48.2	50.4	52.1	53.3	54.5	1.1	1.2
Bulgaria	54.5	58.2	60.7	64.4	64.2	64.9	0.6	-0.2
France	49.9	51.3	52.3	53.1	53.8	56.0	2.1	0.7
Germany	68.6	70.2	71.4	72.7		71.9	71.9	-72.7
Denmark	65.8	68.2	69.2	71.3	71.4	72.3	0.9	0.1
Czech Republic	58.5	62.1	65.1	66.7	68.2	69.8	1.7	1.5
EU 27	54.2	56.1	57.8	59.1	59.6	60.5	0.9	0.5
Greece	36.3	38.3	41.1	43.2	44.6	48.3	3.7	1.4
Estonia	65.2	68.0	69.0	72.5	72.0	71.7	-0.3	-0.5
Euro area	55.3	57.1	58.8	60.0	60.2	61.0	0.8	0.2
Ireland	56.8	58.4	60.4	61.8	61.8	62.8	1.0	0.0
Spain	49.1	50.5	52.2	53.8	54.7	55.8	1.1	0.9
Italy	50.3	52.2	53.7	54.3	54.2	53.4	-0.9	0.0
Croatia	38.1	40.4	42.8	44.0	45.5	48.7	3.2	1.5
Cyprus	52.2	55.3	60.9	61.1	61.0	63.4	2.4	-0.2
Latvia	61.4	62.3	65.4	67.3	68.6	67.8	-0.8	1.2
Lithuania	64.6	66.1	68.5	68.4	67.6	68.0	0.4	-0.8
Luxembourg	39.6	39.8	40.5	43.1	44.0	46.6	2.6	0.9
Malta	45.8	47.2	50.2	51.1	52.9	51.9	-1.0	1.8
Netherlands	63.5	65.7	67.7	69.7	71.0	71.4	0.5	1.3
Hungary	49.8	51.7	54.4	56.7	59.6	62.8	3.2	2.9
Poland	46.2	48.3	49.0	49.6	51.8	54.7	2.9	2.3
Portugal	52.1	56.2	59.2	60.4	60.8	63.4	2.6	0.4
Romania	42.8	44.6	46.3	47.8	48.5	43.8	-4.7	0.7
Slovakia	49	53.0	54.2	57.0	58.3	60.7	2.4	1.3
Slovenia	38.5	42.8	47.1	48.6	50.5	52.7	2.3	1.8
Sweden	75.5	76.4	78.0	77.7	77.6	76.9	-0.7	-0.1
Finland	61.4	62.6	65.4	66.8	67.5	68.4	0.9	0.7

(*) % of employed people between 55 and 64 in relation to their total population

Table 10: Change in Employment (persons aged over 15)

	Annual data (%)					
	2016	2017	2018	2019	2020	2021
Austria	1.8	1.0	1.3	0.9	-1.3	0.2
Belgium	0.9	1.0	2.4	1.5	-0.6	1.1
Bulgaria	-0.6	4.0	-0.1	2.2	-3.6	-1.2
France	0.5	0.8	0.8	0.2	-0.6	2.7
Germany	2.5	0.8	0.4	1.0		
Denmark	1.7	1.1	1.5	1.5	-0.9	1.5
Czech Republic	1.7	1.6	1.0	0.1	-1.2	-0.4
EU 27	1.5	1.4	1.1	0.9	-1.4	0.5
Greece	1.8	2.0	1.9	2.0	-1.2	1.1
Estonia	-0.1	2.2	0.7	0.6	-2.2	-0.7
Euro area	1.7	1.3	1.2	1.0	-1.5	0.8
Ireland	3.6	2.8	2.6	2.7	-1.5	3.9
Spain	2.6	2.6	2.6	2.3	-3.1	2.8
Italy	1.2	0.9	0.6	0.4	-2.0	-1.7
Croatia	0.5	2.3	1.7	1.2	-1.2	1.2
Cyprus	1.1	4.5	5.4	3.5	0.3	3.0
Latvia	-0.6	0.0	1.3	-0.3	-2.1	-3.5
Lithuania	1.3	-0.9	1.4	0.0	-2.0	0.9
Luxembourg	1.6	4.0	3.1	3.2	1.0	4.4
Malta	5.2	6.0	8.1	5.5	2.7	2.2
Netherlands	1.3	1.9	2.0	1.7	-0.1	3.4
Hungary	3.2	1.5	0.9	0.6	-1.4	3.6
Poland	0.6	1.1	0.3	-0.2	-0.3	1.2
Portugal	1.4	3.3	2.2	0.8	-2.1	1.4
Romania	-0.8	2.4	0.2	0.3	-1.6	-7.3
Slovakia	2.8	1.2	1.2	0.4	-2.1	1.2
Slovenia	0.1	4.5	2.0	0.8	-0.5	-1.1
Sweden	1.6	2.1	1.6	0.6	-1.5	0.5
Finland	0.5	1.0	2.6	0.9	-1.5	0.8

Table 11: Unemployment Rate – Total Population

	Annual data (%)						Change (%)	
	2016	2017	2018	2019	2020	2021	2021/20	2020/19
Austria	6.5	5.9	5.2	4.8	6.0	6.2	0.2	1.2
Belgium	7.9	7.2	6.0	5.5	5.8	6.3	0.5	0.3
Bulgaria	8.6	7.2	6.2	5.2	6.1	5.3	-0.8	0.9
France	10.1	9.4	9.0	8.4	8.0	7.9	-0.1	-0.4
Germany	3.9	3.6	3.2	3.0	3.7	3.6	-0.1	0.7
Denmark	6.0	5.8	5.1	5.0	5.6	5.1	-0.5	0.6
Czech Republic	4.0	2.9	2.2	2.0	2.6	2.8	0.2	0.6
EU 27	9.3	8.3	7.4	6.8	7.2	7.0	-0.2	0.4
Greece	23.9	21.8	19.7	17.9	17.6	14.7	-2.9	-0.3
Estonia	6.8	5.8	5.4	4.5	6.9	6.2	-0.7	2.4
Euro area	10.1	9.1	8.2	7.6	8.0	7.7	-0.3	0.4
Ireland	8.4	6.7	5.8	5.0	5.9	6.2	0.3	0.9
Spain	19.6	17.2	15.3	14.1	15.5	14.8	-0.7	1.4
Italy	11.7	11.3	10.6	9.9	9.3	9.5	0.2	-0.6
Croatia	13.1	11.2	8.5	6.6	7.5	7.6	0.1	0.9
Cyprus	13.0	11.1	8.4	7.1	7.6	7.5	-0.1	0.5
Latvia	9.7	8.7	7.4	6.3	8.1	7.6	-0.5	1.8
Lithuania	7.9	7.1	6.2	6.3	8.5	7.1	-1.4	2.2
Luxembourg	6.3	5.5	5.6	5.6	6.8	5.3	-1.5	1.2
Malta	4.7	4.0	3.7	3.6	4.4	3.5	-0.9	0.8
Netherlands	7.0	5.9	4.9	4.4	4.9	4.2	-0.7	0.5
Hungary	5.0	4.0	3.6	3.3	4.1	4.1	0.0	0.8
Poland	6.3	5.0	3.9	3.3	3.2	3.4	0.2	-0.1
Portugal	11.5	9.2	7.2	6.7	7.0	6.6	-0.4	0.3
Romania	7.2	6.1	5.3	4.9	6.1	5.6	-0.5	1.2
Slovakia	9.6	8.1	6.5	5.7	6.7	6.8	0.1	1.0
Slovenia	8.0	6.6	5.1	4.4	5.0	4.8	-0.2	0.6
Sweden	7.1	6.8	6.5	7.0	8.5	8.8	0.3	1.5
Finland	8.9	8.7	7.5	6.8	7.7	7.7	0.0	0.9

Table 12: Unemployment Rate among Men

	Annual data (%)						Change (%)	
	2016	2017	2018	2019	2020	2021	2021/20	2020/19
Austria	7.0	6.5	5.5	5.1	6.1	6.3	0.2	1.0
Belgium	8.2	7.2	6.4	5.9	6.0	6.6	0.6	0.1
Bulgaria	9.2	7.4	6.7	5.6	6.5	5.5	-1.0	0.9
France	10.3	9.5	9.0	8.5	8.1	8.0	-0.1	-0.4
Germany	4.2	3.9	3.6	3.3	4.0	3.9	-0.1	0.7
Denmark	5.6	5.6	4.9	4.8	5.3	5.0	-0.3	0.5
Czech Republic	3.4	2.3	1.8	1.7	2.2	2.3	0.1	0.5
EU 27	9.0	8.0	7.1	6.5	7.0	6.7	-0.3	0.5
Greece	20.2	18.2	15.8	14.4	14.6	11.4	-3.2	0.2
Estonia	7.6	6.3	5.6	4.1	7.1	6.8	-0.3	3.0
Euro area	9.8	8.8	7.9	7.3	7.7	7.4	-0.3	0.4
Ireland	9.1	7.1	5.8	5.2	5.8	6.3	0.5	0.6
Spain	18.1	15.7	13.7	12.5	13.9	13.1	-0.8	1.4
Italy	11.0	10.4	9.7	9.1	8.6	8.7	0.1	-0.5
Croatia	12.5	10.6	7.7	6.2	7.5	7.3	-0.2	1.3
Cyprus	12.7	10.9	8.1	6.3	7.6	7.1	-0.5	1.3
Latvia	11.0	9.8	8.4	7.2	9.1	8.5	-0.6	1.9
Lithuania	9.1	8.6	6.9	7.1	9.3	7.6	-1.7	2.2
Luxembourg	6.0	5.6	5.3	5.7	6.6	4.9	-1.7	0.9
Malta	4.4	3.8	3.8	3.4	4.3	3.7	-0.6	0.9
Netherlands	6.5	5.4	4.7	4.3	4.6	4.0	-0.6	0.3
Hungary	5.1	3.8	3.5	3.4	4.1	3.9	-0.2	0.7
Poland	6.2	5.0	3.9	3.1	3.1	3.4	0.3	0.0
Portugal	11.5	8.8	6.9	6.0	6.8	6.3	-0.5	0.8
Romania	7.9	6.8	5.8	5.3	6.3	6.0	-0.3	1.0
Slovakia	8.6	7.7	6.0	5.5	6.2	6.7	0.5	0.7
Slovenia	7.5	5.8	4.6	4.0	4.4	4.3	-0.1	0.4
Sweden	7.5	7.1	6.6	6.9	8.6	8.5	-0.1	1.7
Finland	9.4	9.1	7.7	7.3	8.1	8.2	0.1	0.8

Table 13: Unemployment Rate among Women

	Annual data (%)						Change (%)	
	2016	2017	2018	2019	2020	2021	2021/20	2020/19
Austria	5.8	5.3	4.9	4.6	5.9	6.1	0.2	1.3
Belgium	7.6	7.1	5.6	5.0	5.5	5.9	0.4	0.5
Bulgaria	7.9	6.9	5.6	4.8	5.7	5.0	-0.7	0.9
France	9.8	9.4	9.0	8.4	8.0	7.8	-0.2	-0.4
Germany	3.5	3.1	2.8	2.6	3.3	3.2	-0.1	0.7
Denmark	6.4	6.1	5.3	5.3	6.0	5.2	-0.8	0.7
Czech Republic	4.7	3.6	2.8	2.4	3.0	3.4	0.4	0.6
EU 27	9.5	8.6	7.7	7.2	7.6	7.4	-0.2	0.4
Greece	28.5	26.4	24.7	22.4	21.5	18.9	-2.6	-0.9
Estonia	6.1	5.1	5.2	4.8	6.6	5.6	-1.0	1.8
Euro area	10.4	9.5	8.6	8.0	8.3	8.1	-0.2	0.3
Ireland	7.6	6.3	5.7	4.7	5.9	6.2	0.3	1.2
Spain	21.4	19.0	17.0	16.0	17.4	16.7	-0.7	1.4
Italy	12.8	12.4	11.7	11.1	10.4	10.6	0.2	-0.7
Croatia	13.8	11.9	9.4	7.2	7.6	8.0	0.4	0.4
Cyprus	13.4	11.3	8.8	8.0	7.6	7.9	0.3	-0.4
Latvia	8.5	7.7	6.5	5.4	7.1	6.6	-0.5	1.7
Lithuania	6.7	5.7	5.4	5.5	7.7	6.6	-1.1	2.2
Luxembourg	6.6	5.5	5.9	5.5	7.0	5.6	-1.4	1.5
Malta	5.2	4.3	3.5	4.0	4.5	3.3	-1.2	0.5
Netherlands	7.6	6.4	5.1	4.5	5.1	4.5	-0.6	0.6
Hungary	4.8	4.3	3.7	3.3	4.2	4.2	0.0	0.9
Poland	6.3	5.0	3.9	3.6	3.3	3.4	0.1	-0.3
Portugal	11.5	9.6	7.6	7.3	7.2	6.9	-0.3	-0.1
Romania	6.2	5.1	4.5	4.3	5.7	5.1	-0.6	1.4
Slovakia	10.9	8.5	7.1	6.0	7.1	7.0	-0.1	1.1
Slovenia	8.6	7.5	5.7	5.0	5.7	5.3	-0.4	0.7
Sweden	6.7	6.6	6.4	7.1	8.5	9.1	0.6	1.4
Finland	8.4	8.3	7.2	6.2	7.4	7.1	-0.3	1.2

Table 14: Long-Term Unemployment Rate (*)

	Annual data (%)						Change (%)	
	2018	2019	2020	2019	2020	2021	2021/20	2020/19
Austria	28.9	25.1	24.5	8.4	11.7	11.6	-0.1	3.3
Belgium	48.7	43.5	41.6	13.6	15.3	18.9	3.6	1.7
Bulgaria	58.4	56.6	45	10.7	18.3	15.5	-2.8	7.6
France	41.6	40	36.5	19.1	21.0	18.2	-2.8	1.9
Germany	40.9	37.8	29.6	5.4	8.1	7.1	-1.0	2.7
Denmark	19.1	16.4	16.4	8.2	10.8	8.7	-2.1	2.6
Czech Republic	30.5	30	22.1	5.7	7.2	7.2	0.0	1.5
EU 27	44.4	41.4	35.4	15.1	17.1	17.4	0.3	2.0
Greece	70.3	70.1	66.5	33.6	36.0	38.2	2.2	2.4
Estonia	24.9	20	17.1	14.1	18.4	19.1	0.7	4.3
Euro area	46.4	43.5	37.5	15.7	17.5	17.6	0.1	1.8
Ireland	36.3	32.1	23.6	15.7	16.6	21.1	4.5	0.9
Spain	41.7	37.8	32.1	33.1	39.6	38.4	-1.2	6.5
Italy	58.1	56	51.5	28.4	24.7	29.3	4.6	-3.7
Croatia	40.2	35.8	28.1	9.7	19.8	22.7	2.9	10.1
Cyprus	31.7	29.1	28.1	14.9	17.8	17.0	-0.8	2.9
Latvia	41.6	38	27.3	15.1	18.2	16.7	-1.5	3.1
Lithuania	32.2	30.6	29	10.2	21.1	19.4	-1.7	10.9
Luxembourg	24.7	22.8	25.5	17.5	23.3	16.2	-7.1	5.8
Malta	48.1	25.1	25.5	9.1	11.1	10.6	-0.5	2.0
Netherlands	36.6	30.3	23.2	6.3	9.5	9.3	-0.2	3.2
Hungary	38.5	31.9	26.2	10.8	14.7	13.3	-1.4	3.9
Poland	26.9	21.6	20	10.4	9.5	13.3	3.8	-0.9
Portugal	43.7	42.6	33.3	18.1	19.9	23.7	3.8	1.8
Romania	44.1	42.4	29.9	15.0	15.4	17.6	2.2	0.4
Slovakia	61.8	58.2	47.8	14.6	18.5	20.0	1.5	3.9
Slovenia	42.9	43	38.8	6.5	15.6	14.2	-1.4	9.1
Sweden	17.2	13.7	13.9	23.5	30.0	30.0	0.0	6.5
Finland	21.8	17.6	15.4	22.5	28.2	23.9	-4.3	5.7

(*) % long term unemployed (12 months or more) as a % of total unemployed

Table 15: Unemployment Rate among Youth 15-24 years old

	Annual data (%)						Change (%)	
	2016	2017	2018	2019	2020	2021	2021/20	2020/19
Austria	12.0	10.5	10.0	9.1	11.7	11.0	-0.7	2.6
Belgium	20.3	19.4	16.0	14.5	15.9	18.2	2.3	1.4
Bulgaria	20.4	16.1	15.9	12.1	17.4	15.8	-1.6	5.3
France	26.0	23.5	22.0	20.7	21.5	18.9	-2.6	0.8
Germany	7.5	7.2	6.6	6.2	8.0	6.9	-1.1	1.8
Denmark	12.2	12.4	10.5	10.1	11.6	10.8	-0.8	1.5
Czech Republic	10.5	7.9	6.7	5.6	8.0	8.2	0.2	2.4
EU 27	20.7	18.5	16.7	15.6	17.6	16.6	-1.0	2.0
Greece	48.2	44.5	41.2	37.5	38.0	35.5	-2.5	0.5
Estonia	14.0	12.1	12.0	11.6	18.3	16.7	-1.6	6.7
Euro area	21.4	19.3	17.5	16.3	18.1	16.8	-1.3	1.8
Ireland	16.8	14.4	13.8	12.5	15.8	14.5	-1.3	3.3
Spain	44.4	38.6	34.3	32.5	38.3	34.8	-3.5	5.8
Italy	37.7	34.6	32.2	29.2	29.8	29.7	-0.1	0.6
Croatia	31.3	27.4	23.7	16.6	21.1	21.9	0.8	4.5
Cyprus	29.1	24.7	20.2	16.6	18.2	17.1	-1.1	1.6
Latvia	17.5	17.0	12.2	12.7	14.9	14.8	-0.1	2.2
Lithuania	14.5	13.3	11.1	11.9	19.6	14.3	-5.3	7.7
Luxembourg	18.9	15.4	14.2	17.0	23.2	16.9	-6.3	6.2
Malta	10.7	10.6	9.1	9.3	10.9	9.6	-1.3	1.6
Netherlands	12.1	10.4	8.9	8.5	10.6	9.3	-1.3	2.1
Hungary	12.7	10.5	9.9	11.2	12.5	13.5	1.0	1.3
Poland	17.8	14.9	11.8	9.9	10.9	11.9	1.0	1.0
Portugal	28.0	23.9	20.3	18.3	22.5	23.4	0.9	4.2
Romania	25.9	23.0	20.5	21.0	21.6	21.0	-0.6	0.6
Slovakia	23.4	20.0	15.8	17.1	20.4	20.6	0.2	3.3
Slovenia	15.3	11.3	8.9	8.1	14.3	12.8	-1.5	6.2
Sweden	18.3	17.2	16.8	19.4	23.5	24.7	1.2	4.1
Finland	20.5	20.0	17.3	17.7	21.0	17.1	-3.9	3.3

(*) For the exact definition of the index see here:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=DSP_GLOSSARY_NOM_DTL_VIEW&StrNom=CODED2&StrLanguageCode=EN&IntKey=16664385&RdoSearch=BEGIN&TxtSearch=&CboTheme=36940331&IsTer=TERM&IntCurrentPage=4&ter_valid=0

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=DSP_GLOSSARY_NOM_DTL_VIEW&StrNom=CODED2&StrLanguageCode=EN&IntKey=27697382&RdoSearch=BEGIN&TxtSearch=&CboTheme=36940331&IsTer=TERM&IntCurrentPage=44&ter_valid=0