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CORRIGENDUM

This document corrects document SWD(2022) 630 final of 23.05.2022.
Correction of figures in table 2.1.

The text shall read as follows:

COMMISSION STAFF WORKING DOCUMENT

In-depth review for Greece

in accordance with Article 5 of Regulation (EU) No. 2011/1176 on the prevention and correction of macroeconomic imbalances

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN CENTRAL BANK, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN INVESTMENT BANK

2022 European Semester – Spring Package

{COM(2022) 600 final} - {SWD(2022) 628 final} - {SWD(2022) 629 final} - {SWD(2022) 631 final} - {SWD(2022) 632 final} - {SWD(2022) 633 final} - {SWD(2022) 634 final} - {SWD(2022) 635 final} - {SWD(2022) 636 final} - {SWD(2022) 637 final} - {SWD(2022) 638 final} - {SWD(2022) 639 final}

On the basis of this in-depth review for Greece undertaken under Regulation (EU) No 1176/2011 on the prevention and correction of macroeconomic imbalances, the Commission has considered in its Communication "European Semester – 2022 Spring Package" (COM(2022)600 final) that:

Greece is experiencing excessive imbalances. Vulnerabilities relate to high government debt, incomplete external rebalancing and high non-performing loans in a context of low potential growth and high unemployment. The government debt-to-GDP ratio resumed its decline, which is projected to continue thanks to improving budgetary outcomes and economic growth. The current account deficit still reflects the incomplete recovery from the sharp fall in foreign tourism in 2020 and is expected to remain clearly negative this year and next. The net international investment position remains also largely negative, to a substantial extent reflecting government debt mostly held by official sector creditors. It may however improve expressed as a share of GDP thanks to economic growth and inflows of significant RRF funds. Despite substantial progress, the share of non-performing loans remains high and hampers banks' ability to provide credit to firms and households. Relevant measures have been taken to facilitate economic adjustment and the unwinding of vulnerabilities. The successful implementation of the RRP represents a major opportunity to address vulnerabilities and enhance potential growth.

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1. INTRODUCTION

In 2021, over the previous annual cycle of surveillance under the Macroeconomic Imbalances Procedure (MIP), the Commission identified "excessive macroeconomic imbalances" in Greece. ([1]) These imbalances related to high government debt, incomplete external rebalancing and high level of non-performing loans, in a context of high unemployment and low potential growth. The 2022 Alert Mechanism Report concluded that an in-depth review (IDR) should be undertaken for Greece with a view to assess the persistence or unwinding of excessive imbalances. ([2])

Greece recovered swiftly from the pandemic, but the economy remains exposed to a legacy of imbalances ([3])**.** The economy reached a high GDP growth rate of 8.3% in 2021, driven by domestic demand and the better-than-expected tourist season, as tourist receipts recovered in 2021 to 57.8% of their respective 2019 level (see section 3). The pre-pandemic level of economic activity was already reached in the third quarter of 2021. The spread of the new omicron variant of the coronavirus did not have significant repercussions to growth in the last quarter of 2021 and its impact is estimated to have largely faded out during the first quarter of 2022. Growth is expected to reach 3.5% in 2022 and 3.1% in 2023. The turmoil on global energy markets, also associated with the Russian military aggression against Ukraine, is expected to increase domestic inflationary pressures and weigh on the real disposable income of households. However, government support measures, increases in the minimum wage, and the savings accumulated during the pandemic are expected to partially cushion the negative effects on private consumption, which, following the successive lifting of the pandemic-related restrictions has returned to its pre-pandemic level already in the fourth quarter of 2021. Heightened risk aversion, along with increased supply bottlenecks may delay the kick-off of new investment projects, but the economy is also set to benefit from the deployment of RRP-financed projects. Tourism is expected to continue its recovery to its pre-pandemic level, given the limited share of tourists from Russia, Ukraine and Belarus in total arrivals. Growth of goods exports is, however, expected to decrease compared to previous estimates in view of the projected slowdown in the EU and the global economy as a whole. The recent price developments of energy and, in particular, of electricity have led to a surge in consumer prices and are an additional source of uncertainty for the economy at large. The Commission's 2022 spring forecast expects inflation to peak at 6.3% in 2022, before it would ease to 1.9% in 2023, as international prices are to moderate slowly. Potential growth is forecast to recover from the sharp drop in 2020 and to increase in 2022 and in 2023. Labour market developments remain favourable and the unemployment rate, which stood at 14.7% in 2021, down from its peak of 27.8% in 2013, is set to decrease further in 2022 as the slack in the labour market gradually diminishes, although the rate remains among the highest in the EU. The second increase in the minimum wage by 7.5% in May 2022, followed an absence of updates for 2 years and a modest increase of 2% from January 2022. This is set to support nominal wage growth and protect low-income workers in the second half of the year, given that 28% of the total employees in the country receive a minimum wage.

This in-depth review presents the main findings of the assessment of imbalances. The assessment is backed by a thematic chapter that looks at length the developments in tourism and goods' exports (section 2). Spillovers and systemic cross-border implications of imbalances are also taken into account. In addition, assessments of structural issues made in previous IDRs and in the context of fiscal assessments are considered if relevant. The MIP assessment matrix is published in the 2022 Country Report for Greece. ([4])

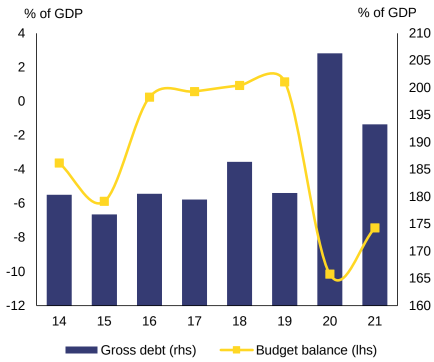
([1]) European Commission (2021), European Semester Spring Package 2021, COM(2021) 500 final.
([2]) European Commission (2021), Alert Mechanism Report 2022, COM (2021) 741 final.
([3]) Forecast data are from European Commission (2022), European Economic Forecast: Spring 2022, Institutional Paper 172.
([4]) European Commission (2022), Country Report Greece 2022, SWD(2022)609 final.

2. ASSESSMENT OF MACROECONOMIC IMBALANCES

Assessment of gravity, evolution and prospects of macroeconomic imbalances

Greece's public debt-to-GDP ratio remains very high, at 193.3% of GDP in 2021. Gross financing needs were elevated in 2021 due to the high primary deficit. Market debt issuance in 2021 was close to 9% of GDP, which is somewhat above the initial funding plan. As Greece's debt is held predominantly by official lenders, the favourable interest rates of these loans ensure that interest expenditure is contained in the short and medium-term. Greece continues to hold a sizeable cash buffer which allows for efficient liquidity management and reduces rollover risks. In the long run, as the ratio of market debt within total debt is expected to increase substantially, reaching 50% in the late 2030s, Greece will be more exposed to the fluctuation of refinancing rates and therefore it will be more vulnerable to interest shocks.

Graph 2.1: **General goverment gross debt and budget balance**



Source: European Commission

The public debt-to-GDP ratio is expected to decline from 193.3% of GDP in 2021 to 185.7% of GDP in 2022 and is expected to remain on a downward trend and reach 130.5% of GDP in 2032. The fiscal response to the pandemic led to a budget deficit of 7.4% in 2021, which is expected to narrow substantially in 2022 and 2023, reaching 4.3% of GDP and 1.0% of GDP, as support measures are gradually phased out and the economic recovery continues. The Commission's fiscal sustainability assessment shows that Greece faces high fiscal sustainability risks over the medium term and medium ones in the long run ([9]).The debt sustainability analysis in the latest enhanced surveillance report ([10]) projects that under the baseline scenario debt-to-GDP would remain on a downward trajectory.

The banking sector continues to be burdened by a high, albeit significantly reduced, stock of non-performing loans. The ratio of non-performing loans ([11]) came down from 26.4% at end-2020 to 12% in September 2021 and is forecast to reach single-digit levels during 2022, mainly on the back of securitisation transactions under the Hercules scheme. However, it remains the highest in the EU and continues to weigh on banks' profitability and their ability to provide credit to companies and consumers. Over the past year, there has been net creation of new non-performing loans at a limited rate so far, as risks persist given the phase-out of state-support measures and potential second-round effects on economic growth from Russia's unprovoked invasion of Ukraine. Going forward, banks' ability to offer viable long-term loan restructuring solutions will be key to sustain the pace of non-performing loan reduction, together with further enhancements in debt enforcement and efforts to improve payment

([9]) See European Commission Country Report on Greece 2022 for the latest results and Fiscal Sustainability Report 2021 (April 2022) for methodological details.
([10]) 14th Enhanced surveillance report, European Commission, May 2022.
([11]) Non-performing loans as a share of total gross loans and advances on a consolidated basis (i.e. including cash balances at central banks and other demand deposits in the denominator) as reported by the European Central Bank. This figure is different than the one reported under enhanced surveillance, which follows non-performing loans as a share of total gross customer loans on a solo basis, as reported by the Bank of Greece.

culture. A large amount of non-performing private debt that has exited the banks' balance sheets still remains in the economy, in the hands of specialised non-bank financial institutions ([12]). At the same time, the debt repayment capacity of both households and nonfinancial corporations remains limited ([13]), while capital markets are not well developed and offer limited alternative sources of finance.

The continued efforts to clean up banks' balance sheets open the way for profitable new lending, while in the short term, they negatively impact banks' profitability and capital positions. The impact of the securitisations on banks' capital positions was partly offset by successful capital enhancing actions in 2021, but their capital adequacy ratio remains one of the lowest in the euro area (15% as of September 2021). In addition, capital quality remains weak due to the increasing share of deferred tax credits in the banks' supervisory capital. The banks' exposure to domestic sovereign bonds, which at end-2021 had risen to 8.5% of banks' total assets, also further reinforces the overall link to the Greek sovereign ([14]), despite measures taken by banks to mitigate the impact of potential increases in sovereign yields on their balance sheets. Banks posted losses in 2021, as the non-performing loan securitisations resulted in temporarily increased provisioning needs, however, recurrent profitability was positive. Non-performing loan securitisations should allow banks to reduce their cost-of-risk and free up space in their balance sheets for new lending, supporting their long-term profitability. On the other hand, their profitability may be affected by a potential increase in their cost of funding, that may come from further debt issuances needed to meet the minimum requirement for own funds and eligible liabilities (MREL) and the expected phasing out of ECB's extraordinary monetary policy measures.

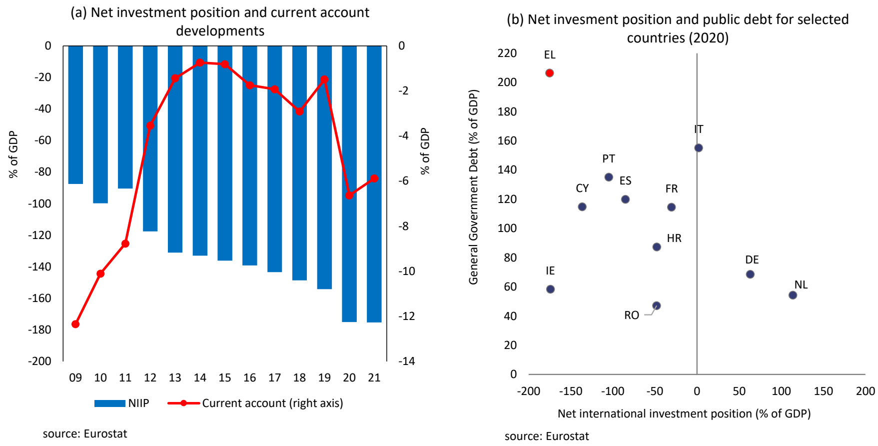
Greece has a high stock of net external liabilities, but it is mainly composed of public debt instruments held by official creditors, which mitigates the country's exposure to external shocks or shifts in market sentiment. Greece's net international investment position in 2021 stood at -175.2%, and remained broadly stable compared to 2020. The pandemic hit the country at a time when Greece was undergoing a process of external rebalancing and reducing the external liabilities would require maintaining high current account surpluses for a sustained period of time. According to Commission calculations, the current account surplus to stabilise the net international investment position at the threshold of -35% of GDP over two decades is estimated at around 1.4% of GDP in 2023. Overall, continued adjustment is conditional on further efforts to improve competitiveness and productivity growth, e.g. through up-skilling and reskilling and attracting productive foreign direct investment over the medium term.

([12]) 14th Enhanced surveillance report, European Commission, May 2022.

([13]) The savings rate of households as a share of disposable income has been negative on average over the period 2013-2019 and has only recently recovered, while the private sector was burdened by a private debt, which represented 125.3% of GDP as of end-2020.

([14]) The increasing share of deferred tax credits in the banks' supervisory capital, in conjunction with the banks' domestic government bond holdings, the State's ownership stakes in the sector and the state guarantees under the Hercules scheme, imply an increased reliance on state-related assets.

Graph 2.2: **Selected external indicators on Greece**



Source: Eurostat

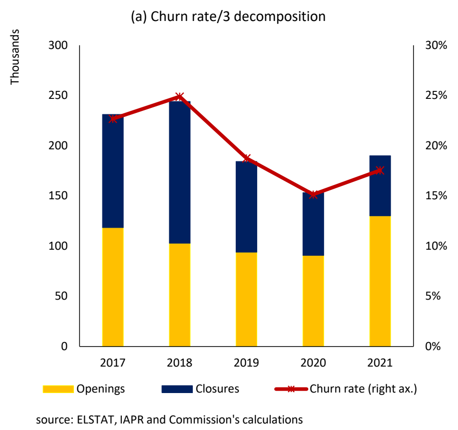
The current account balance improved in 2021, but its deficit remained significantly larger than its pre-pandemic average. Following a sharp deterioration during 2020, the current account deficit ([15]) improved by 0.7 percentage points reaching 5.9% in 2021. A stronger improvement was recorded in cyclically adjusted terms, with the cyclically adjusted current account balance improving from -12.1 % of GDP in 2020 to -9.3% in 2021. Notwithstanding the recovery in 2021, Greece's current account deficit in cyclically adjusted terms remains below what would be required to stabilize the NIIP at more prudent levels. This was primarily the result of the only partial recovery of the travel and secondary income balances. Greece seems more exposed to the energy price shock in general than the EU average, which may have implications for the external position (see box 2.1). Greece's current account is expected to remain wide in 2022 due to a deterioration in the trade balance of goods, in view of the projected slowdown in the EU and the global economy as a whole due to the military agression in Ukraine. This is expected to delay the correction in the cyclically-adjusted current account deficit, which is nonetheless forecast to shrink by the end of the forecast horizon, yet remain below its pre-pandemic level (see Section 3).

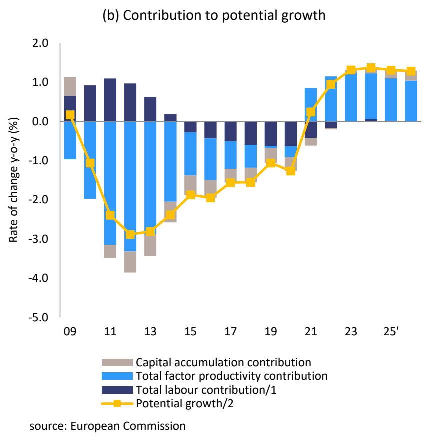
Greece continues to attract foreign direct investments but their stock remains well below the EU average. Following a short slowdown in 2020 due to the pandemic, Greece has attracted significant amounts of foreign direct investment inflows, which for 2021 point to a 13.0% increase compared to the respective level in 2019 in nominal terms. The stock of foreign direct investments remains one of the lowest in the EU (27.3% of GDP compared to the EU average of 77.0% of GDP as of 2020), but is expected to increase, also improving the country's presence in global value chains. Nonetheless, the composition of foreign direct investments is tilted to sectors with limited productivity growth potential, notably real estate. ([16])

Potential output growth remains weak, but investment, supported by the Recovery and Resilience Facility as well as other European Funds, is expected to record significant gains in the following years (Graph 2.3 **(b)).** Over the period before the pandemic, weak potential growth reflected a large investment gap, human capital erosion and subdued productivity. Weak potential growth has slowed down the rebalancing and correction of accumulated stock imbalances. Potential output growth is estimated to have been negative since 2010, but with some signs of recovery after 2016. The swift recovery of economic activity as the pandemic gradually fades, and the stimulus from the Recovery and Resilience Plan as well as the Cohesion Policy funds are expected to lead to a marginally positive potential output growth in 2022 (0.3%), for the first time in more than a decade. Going forward, this stimulus is expected to further promote capital deepening and job creation, which is forecast to provide a notable boost in potential output growth over the entire forecast horizon.

([15]) Balance of Payment concept.
([16]) In-Depth Review for Greece, European Commission, June 2021.

Graph 2.3: **Churn rate (3) decomposition and contributions to potential growth**



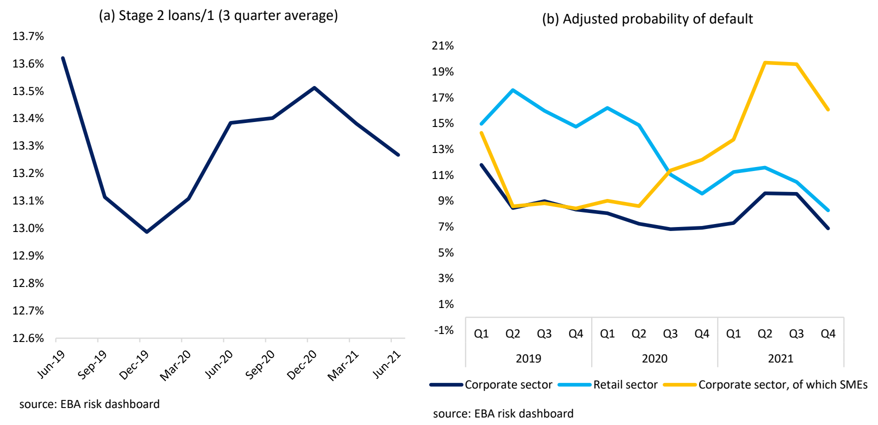


(1) on the basis of average hours worked
(2) production function approach
(3) expressed as the sum of openings and closures of enterprises
Source: IAPR, ELSTAT and European Commission and calculations

Economic activity is concentrated in micro and small businesses which struggle with access to finance. Small and medium-sized enterprises provide jobs to 83% of the total employed persons in Greece, almost 18 percentage points higher compared to the respective average in the EU ([17]). Small firms, which are concentrated in low-innovation and productivity sectors, while providing for many jobs, continue to play an outsized role in the economy, with some signs of improvement as the economic activity gradually shifts to tradable sectors. During the pandemic, the government support measures have safeguarded businesses, while the positive sentiment continues after the broad phase out of the support, with evidence suggesting that the dynamism of the corporate sector ([18]) recovers. Business demographics data, shows the balance of new business 'births', i.e. establishments of new businesses minus closures of existing ones, remaining positive during 2020 and exceeding the respective pre-pandemic levels in 2021 (Graph 2.3 (a)). The data should nevertheless be interpreted with caution as the impact of the pandemic on the corporate sector could be underestimated. As regards the quality of corporate balance sheets, financial sector data can provide additional evidence. The trajectory of Stage 2 loans indicates that the phase out of the moratoria has not led to a considerable increase to the aggregate corporate default risk so far (Graph 2.4 (a)). However, risks emerged from the SME portfolios, albeit decreasing as of the second quarter of 2021 (Graph 2.4 (b)).

([17]) Source: SME Performance Review, European Commission, July 2021.
([18]) Business dynamism as measured by the rate at which firms enter and leave the market. Source: Bartelsman, E. and Doms, M. (2000). Understanding Productivity: Lessons from Longitudinal Microdata, Journal of Economic Literature, 83(3):569—594.

Graph 2.4: **Stage 2 loans/1 and adjusted probability of default**



(1) financial instruments that have deteriorated significantly in credit quality since initial recognition but offer no objective evidence of a credit loss event
Source: European Banking AuthorityEuropean Commission

The labour market continues to display high unemployment, but the declining trend from 2013 has resumed. Since 2013 and until the outbreak of the pandemic, unemployment had been steadily falling, reflecting improvements in the functioning of the labour market and the gradual economic upturn. Greece's unemployment rate continued to decline, reaching 14.7% in 2021, down from its peak of 27.8% in 2013, reflecting the swift recovery of economic activity and the positive tourist season. The unemployment rate, however, remains one of the highest in the EU. It is forecast to decline further to 13.7% and 13.1% in 2022 and 2023 respectively. The activity rate is relatively low, also compared to the respective pre-pandemic level (67.3% in 2021 vs. 68.4% in 2019). Similarly, at 62.6% in 2021, the employment rate stood about 10.5 percentage points below the respective EU average. Young people were hit particularly hard by the pandemic, as the share of young people who are neither in employment nor in education or training has just returned to its pre-pandemic level, same as youth unemployment. At least 12.5% of the total ESF+ resources for Greece (around EUR 700 million) will support youth employment.

Cost competitiveness has been improving over time, but non-cost competitiveness remains a challenge. Wages have increased only moderately over the last decade, broadly in line with inflation and productivity growth. This has facilitated a steady decline in nominal unit labour costs, which has improved cost competitiveness for Greek exports as compared to the euro area. The decline in unit labour costs has partially restored the country's competitiveness, but non-cost competitiveness issues, related to the fact that the country's comparative advantage focuses on products with low technological sophistication, remain a limiting factor that also keeps the exports-to-GDP ratio below potential (see Section 3).

Assessment of MIP relevant policies

Greece is expected to return to a fiscal primary surplus in 2023. Most of the support measures that Greece has taken in response to the pandemic are set to expire by the end of 2022, while the cut in the solidarity tax and the social security contribution rates are expected to be kept permanently. In the meantime, economic growth will increase the tax base and lead to higher revenues. The authorities have adopted measures to counter the social and economic impact of the increase in energy prices in 2022. These measures are expected to be temporary and to be phased out by 2023. The RRP includes measures to increase tax compliance and contribute to a more efficient tax collection. Once fully implemented, these measures could further improve the budgetary position of the general government.

The authorities continued to take measures to address deficiencies in the financial sector. The Hercules asset protection scheme to securitise banks' non-performing loans has been extended until October 2022 to further facilitate the clean up of banks' balance sheets. Furthermore, the platforms under the new insolvency framework are fully operational and are gradually bearing results, particularly with respect to out-of-court settlements. Greece's RRP includes measures to address challenges associated with private indebtedness and the information asymmetries between borrowers and lenders, as well as measures to strengthen capital markets by enhancing supervision. They are complemented by a Loan Facility to promote private investment, including an equity platform to provide equity and mezzanine funding, mainly to small-and-medium sized enterprises and small mid-caps.

A number of measures to strengthen the export performance have been adopted. A series of measures towards the simplification of processes and the acceleration of investment licensing procedures were adopted over the recent years, while a new strategy to facilitate trade and foreign direct investment has been adopted. Similarly, the authorities have implemented a new master plan on the investment priorities for transport infrastructure and logistics that aims to direct public investment towards infrastructure projects that promote exports. Greece’s RRP includes measures to increase extroversion and to improve the regulatory environment for businesses and exporters, by reducing entry barriers, improving the capacity of market surveillance structures and rationalising export processes.

A wide array of reforms has been implemented in various sectors that could raise productivity growth through facilitating the economy’s capital deepening, upgrade human capital and improve public administration. In 2021, the Greek authorities adopted ambitious reforms in the areas of labour and energy markets, the business environment, and public administration, while they continued improving the governance of state-owned enterprises and its privatization agenda. The authorities also put in place a project preparation facility and a strategic projects pipeline, which, also with the revised public procurement legislation, are expected to support the implementation of public investments and promote public private partnerships. Greece’s RRP includes actions to incentivise the increase of average company size and reduce the administrative and regulatory burden, while continuing the efforts to modernise the public administration. Moreover, it includes important infrastructural projects in key economic sectors to advance with the digital and green transition and the implementation of actions to upgrade the economy’s human capital.

The pandemic has had a relatively limited impact on the labour market thanks to the effective policy response. The authorities implemented temporary and targeted measures to maintain jobs and protect incomes. Notably through the short-time work scheme ‘SYNERGASIA’ and other financial support measures which were supported by SURE, a total of 2 million employees benefitted between March 2020 and February 2021, while a limited number of eligible individuals continued receiving support through national resources until March 2022. In parallel, the authorities continued implementing labour market reforms. More specifically, they have adopted an ambitious labour code reform to modernise key aspects of the labour market and have advanced on completing the general minimum income scheme with a labour market integration pillar. Greece’s RRP, also in conjunction with ESF, aim to tackle several challenges, through implementing both active and passive labour market policies including activation programmes that subsidize employment and promote the upskilling and reskilling of the labour force. The plan also envisages investments to boost the capacity of the public employment service (OAED) through the upgrade of its counselling services.

Conclusion

Greece is still facing imbalances linked to high public debt, a high stock of non-performing loans and incomplete external rebalancing, in a context of low potential growth and high unemployment. The pandemic has led to an increase in the government debt and a deterioration in the external position, while further progress has been made on reducing the stock of non-performing loans and a large impact of the crisis on the labour market has been successfully averted. Given the fact that some support measures are currently either extended or were lifted only recently, further evidence is necessary in order to accurately assess the long-term impacts of the pandemic on the Greek economy.

With the pandemic gradually fading out, the economic adjustment process has restarted. Public debt-to-GDP ratio has started decreasing as of 2021. Greece’s current account is expected to remain wide in 2022 due to a deterioration in the trade balance of goods, in view of the projected slowdown in the EU and the global economy as a whole due to the military aggression in Ukraine. This is expected to delay the correction in the cyclically-adjusted current account deficit, which is nonetheless forecast to shrink by the end of the forecast horizon, yet remain below its pre-pandemic level. While the current account is projected to further narrow in the following years, it will remain well below what would be needed to ensure a lasting improvement in the net international investment position. Despite substantial progress with the reduction of non-performing loans on the banks' balance sheets, the non-performing loan ratio remains high, and further efforts will be needed by banks to increase their capacity to internally generate capital through increased profits. Greece seems more exposed to the energy price shock in general, and to Russian energy imports in particular, than the EU average (see box 2.1).

The authorities have taken relevant measures to facilitate economic adjustment and contribute to the unwinding of imbalances. Measures contributed to reducing the legacy of non-performing exposures to the banks' balance sheets, improving the insolvency regime, reforming the labour market, improving the business environment, thereby supporting productivity. Greece has also embarked on the implementation of its Recovery and Resilience Plan, which represents a major opportunity to boost growth and modernise the Greek economy. Through promoting the capital deepening of the economy by facilitating public and private investment and accelerating job creation, the implementation of the Plan is expected to contribute to correcting legacy imbalances, enhance productivity and foster smart and sustainable growth, while also strengthening social resilience.

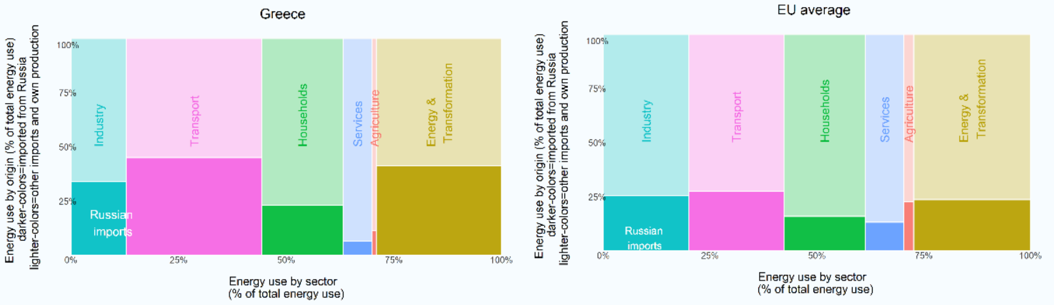
Based on the findings in this in-depth review, the Communication "European Semester – 2022 Spring Package" ([19]) sets out the Commission's assessment as to the existence of imbalances or excessive imbalances in Greece, in line with Regulation 1176/2011.

([19]) European Commission (2022), European Semester Spring Package 2022, COM(2022)600 final.

Box 2.1: Exposures to the commodity price surge, and to Russia

This box summarizes risks and exposures regarding the commodity price surge, and the magnitude of exposures to the Russian economy. The surge of commodity prices since 2021 had been aggravated by the Russian military aggression against Ukraine. This box reviews the risks for the macroeconomic vulnerabilities in Greece. Available data suggests that due to the important role of gas and oil in Greece's energy mix (Table b.1.1), Greece is exposed to the energy price shock in general, and to Russian energy imports in particular (Graph b.1.1).

Graph b.1.1: Sectoral distribution of energy use and of energy imported from Russia

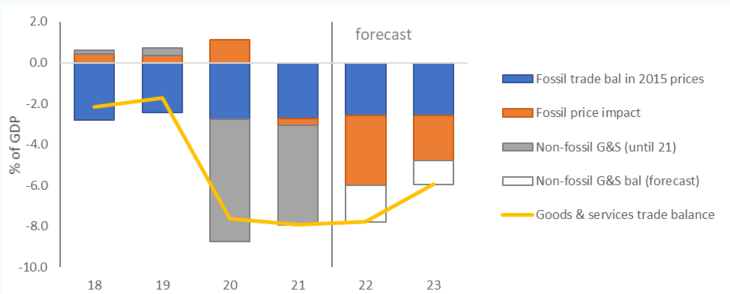


Notes: The left panel displays the distribution of primary energy usage in Greece according to Eurostat energy balances. The horizontal axis displays the relative importance of energy-consuming sectors. The vertical axis displays the importance of energy importance from Russia in satisfying that need. Note that this dependence on Russia differs according to sector's use of natural gas vs oil and coal. For comparison, the right hand panels displays the same concept for the EU aggregate. Russian imports include oil and petroleum products,natural gas and solid fossil fuels.
Sources: Eurostat and European Commission services calculations

Greece's dependence on natural gas and fossil energy imports from Russia is relatively high, though significantly declining in recent years. Specifically, oil represents almost 49% of the gross inland consumption while gas 25% in 2020. Greece's gas production is negligible and 39% of the imported gas comes from Russia. Russia represents also an important trade partner for the oil supply. Since the Greek economy relies considerably more on natural gas and oil than the EU average, it is particularly exposed to the recent commodity price surge. This concerns all sectors of the economy and in particular the transport and the energy transformation sectors which both depend strongly on imported fuel. The Greek reliance on natural gas also implies a non-negligible exposure to Russia's supply disruptions.

Beyond GDP, the fuel price surge is likely to have a strong direct impact on the trade balance. The commodity price effect is expected to depress the balance of goods, leading to a deterioration in the trade balance, and consequently in the current account balance, by around 4 pp. of GDP in 2022 (see Graph b.1.2).

Graph b.1.2: Greek goods and service trade balance – fossil trade contribution



Notes: The graph displays the trade balance as % of GDP, and highlights net trade of petroleum products, natural gas and solid fossil fuels (mainly coal), in 2015 import prices. The 'fossil price impact' component details the impact of price changes on the (also changing) real trade balance. 2022 and 2023 figures reflect central assumptions of the Commission spring forecast, notably combining the forecasted fossil price evolution with broadly forecasted import quantities of fossil energy sources.

Greece's financial links to Russian entities are limited. Table 1 shows that portfolio and other investment assets held in and towards Russia are well below EU average. However, the number of Russian tourist nights spent in Greece is higher than the EU average suggesting that the tourism sector could experience some negative impact, in the absence of substitution effects.

Table b.1.1: Selected exposures

Trade & financial exposures	unit	EL	EU	Energy mix	unit	EL	EU
Domestic value added embodied in exports to Russia	% of GDP	0.3%	0.4%	Solids fossil fuels (incl. peat)	% of Gross inland consumption 2020	9.3%	10.8%
Non-energy Russian import content in final demand	% of GDP	0.6%	0.4%	Oil and petroleum products	% of Gross inland consumption 2020	48.6%	32.7%
Russian tourist nights spent	% of total 2019	5.5%	2.7%	Natural gas	% of Gross inland consumption 2020	25.0%	24.4%
FDI assets held in Russia	% of 2020 GDP	0.0%	2.5%	Renewables and waste	% of Gross inland consumption 2020	17.1%	19.0%
Portfolio & other inv. assets held in Russia	% of 2020 GDP	0.0%	0.9%	Nuclear	% of Gross inland consumption 2020	0.0%	13.1%
FDI liabilities towards Russia	% of 2020 GDP	0.1%	1.2%	**Commodity exposures**	**unit**	**EL**	**EU**
Portfolio & other inv. liabilities towards Russia	% of 2020 GDP	0.0%	1.1%	Net petroleum imports from all countries	% of GDP 2021	1.8%	1.2%
Consolidated banking exposures towards Russia	% of 2021 GDP		0.5%	Crude oil imports from Russia '20	% of oil imports	17.7%	25.7%
				Net gas imports from all countries	% of GDP 2021	1.3%	0.6%
				Gas imports from Russia '20	% of gas imports	39.0%	43.6%

Data source: Eurostat for commodity exposures, European Commission Figaro for value-added exposures, BIS for consolidated banking exposures, European Commission FinFlows for other financial exposures. Energy gross inland consumption excludes net imports of electricity and derived heat.

Table 2.1: **Selected economic and financial indicators (Part 1), Greece**

								forecast	
all variables y-o-y % change, unless otherwise stated	2003-07	2008-12	2013-17	2018	2019	2020	2021	2022	2023
Real GDP	4.1	-5.5	-0.3	1.7	1.8	-9.0	8.3	3.5	3.1
Potential growth (1)	3.3	-1.1	-2.0	-1.3	-0.6	-0.8	-0.1	0.3	0.9
Contribution to GDP growth:									
Domestic demand	5.1	-7.0	-0.6	0.0	1.2	-4.9	8.6	2.6	1.6
Inventories	0.0	-0.7	0.1	1.4	0.0	1.4	-0.9	0.0	0.0
Net exports	-1.1	2.1	0.1	0.2	0.6	-5.5	0.7	0.9	1.5
Contribution to potential GDP growth (1):									
Total Labour (hours)	0.7	0.9	-0.1	-0.7	-0.8	-0.9	-0.6	-0.2	0.0
Capital accumulation	1.0	0.1	-0.5	-0.4	-0.4	-0.4	-0.2	0.0	0.1
Total factor productivity	1.7	-2.0	-1.4	-0.2	0.5	0.4	0.6	0.5	0.7
Output gap (2)	2.5	-7.0	-13.3	-7.2	-4.9	-12.8	-5.3	-2.4	-0.3
Unemployment rate	9.8	14.7	25.0	19.7	17.9	17.6	14.7	13.7	13.1
Harmonised index of consumer prices (HICP)	3.3	2.9	-0.4	0.8	0.5	-1.3	0.6	6.3	1.9
GDP deflator	3.1	1.5	-0.9	-0.2	0.2	-0.8	2.1	4.8	2.1
External position									
Current account balance (% of GDP), balance of payments	-10.3	-10.0	-1.3	-2.9	-1.5	-6.6	-5.9	-6.0	-4.0
Trade balance (% of GDP), balance of payments	-9.0	-7.2	-1.2	-1.8	-0.9	-6.8	-6.9	.	.
Primary income balance (% of GDP)	-1.5	-2.3	-0.1	-1.0	-0.9	-0.2	0.4	.	.
Secondary income balance (% of GDP)	0.2	-0.5	0.0	-0.2	0.3	0.3	0.7	.	.
Current account explained by fundamentals (CA norm, % of GDP) (3)	-2.1	-1.5	-1.1	-0.9	-0.9	-0.8	-0.8	-0.6	-0.5
Required current account to stabilise NIIP above -35% of GDP over 20Y (% of GDP) (4)	0.7	3.2	1.1	0.4	0.5	0.6	-0.4	0.7	1.4
Capital account balance (% of GDP)	1.2	1.2	1.1	0.2	0.4	1.7	2.2	.	.
Net international investment position (% of GDP)	-75.7	-94.2	-136.5	-148.6	-154.2	-175.0	-175.2	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (5)	.	-96.2	-129.1	-135.1	-133.6	-155.2	-151.9	.	.
Net FDI flows (% of GDP)	0.0	-0.1	-1.0	-1.6	-2.1	-1.4	-2.2	.	.
Competitiveness									
Unit labour costs (ULC, whole economy)	3.1	2.8	-2.3	-1.0	-0.3	7.8	-5.9	1.2	0.3
Nominal compensation per employee	5.6	-0.9	-3.2	-3.8	0.6	-0.7	1.4	3.5	2.2
Labour productivity (real, hours worked)	2.3	-3.5	-0.4	-3.5	3.3	2.0	-0.3	-1.7	1.4
Real effective exchange rate (ULC)	1.5	0.3	-2.8	-0.9	-3.7	.	.	.	.
Real effective exchange rate (HICP)	0.2	-0.2	-0.8	2.0	-2.0	0.3	-1.1	.	.
Export performance vs. advanced countries (% change over 5 years)	13.6	-5.2	-13.1	4.0	1.6	-9.7	.	.	.
Private sector debt									
Private sector debt, consolidated (% of GDP)	84.8	125.6	128.5	119.2	110.5	125.3	120.7e	.	.
Household debt, consolidated (% of GDP)	35.5	59.3	62.6	58.8	56.0	59.7	54.2e	.	.
Household debt, fundamental benchmark (% of GDP) (6)	12.8	15.3	18.3	18.9	19.4	22.3	21.6	.	.
Household debt, prudential threshold (% of GDP) (6)	35.5	30.1	34.4	34.7	36.4	33.4	33.8	.	.
Non-financial corporate debt, consolidated (% of GDP)	49.3	66.3	65.9	60.4	54.5	65.6	66.4e	.	.
Corporate debt, fundamental benchmark (% of GDP) (6)	26.7	32.2	45.8	46.5	45.8	50.4	47.0	.	.
Corporate debt, prudential threshold (% of GDP) (6)	60.8	52.4	63.4	64.2	67.5	62.2	62.7	.	.
Private credit flow, consolidated (% of GDP)	13.6	1.8	-2.7	-0.9	-0.9	5.4	0.5e	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	4.8	7.2	8.6	1.6	1.8	2.8	2.2	0.9	-0.7
Households, net lending (+) or net borrowing (-) (% of GDP)	-7.4	-4.7	-4.0	-4.8	-4.0	1.3	-1.5	-3.4	-2.7
Net savings rate of households (% of net disposable income)	-0.4	-6.8	-13.6	-14.8	-11.8	-4.9	.	.	.

(e) estimate based on ECB quarterly data
(1) Potential output is the highest level of production that an economy can reach without generating inflationary pressures. The methodology to compute the potential output is based on K. Havik, K. Mc Morrow, F. Orlandi, C. Planas, R. Raciborski, W. Roeger, A. Rossi, A. Thum-Thysen, V. Vandermeulen, The Production Function Methodology for Calculating Potential Growth Rates & Output Gaps, COM, European Economy, Economic Papers 535, November 2014.
(2) Deviation of actual output from potential output as % of potential GDP.
(3) Current accounts in line with fundamentals ("current account norms") are derived from reduced-form regressions capturing the main determinants of the saving-investment balance, including fundamental determinants, policy factors and global financial conditions. See L. Coutinho et al. (2018), "Methodologies for the assessment of current account benchmarks", European Economy, Discussion Paper 86/2018, for details.
(4) This benchmark is defined as the average current account required to reach and stabilise the NIIP at -35% of GDP over the next 20 years. Calculations make use of Commission's T+10 projections.
(5) NENDI is a subset of the NIIP that abstracts from its pure equity-related components, i.e. foreign direct investment (FDI) equity and equity shares, and from intracompany cross-border FDI debt, and represents the NIIP excluding instruments that cannot be subject to default.
(6) Fundamentals-based benchmarks are derived from regressions capturing the main determinants of credit growth and taking into account a given initial stock of debt. Prudential thresholds represent the debt threshold beyond which the probability of a banking crisis is relatively high, minimising the probability of missed crisis and that of false alerts. Methodology to compute the fundamentals-based and the prudential benchmarks based on Bricongne, J. C., Coutinho, L., Turrini, A., Zeugner, S. (2019), "Is Private Debt Excessive?", Open Economies Review, 1- 42.
Source: Eurostat and ECB as of 2022-05-02, where available; European Commission for forecast figures (Spring forecast 2022)

Table 2.2: **Selected economic and financial indicators (Part 2), Greece**

all variables y-o-y % change unless otherwise stated	2003-07	2008-12	2013-17	2018	2019	2020	2021	forecast 2022	2023
Housing market									
House price index, nominal	7.5	-4.9	-5.4	1.8	7.2	4.5	7.1	.	.
House price index, deflated	4.2	-6.5	-4.3	1.7	7.2	5.6	6.0	.	.
Overvaluation gap (%) (7)	9.2	10.7	-7.2	-8.2	-3.4	2.0	6.3	.	.
Price-to-income overvaluation gap (%) (8)	8.6	10.0	-4.0	-8.9	-6.1	0.8	0.8	.	.
Residential investment (% of GDP)	9.7	5.6	1.1	0.7	0.9	1.1	1.3	.	.
Government debt									
General government balance (% of GDP)	-7.1	-11.2	-4.4	0.9	1.1	-10.2	-7.4	-4.3	-1.0
General government gross debt (% of GDP)	103.7	144.2	179.1	186.4	180.7	206.3	193.3	185.7	180.4
Banking sector									
Return on equity (%)	.	6.0	-10.9	-0.4	0.7	-7.8	.	.	.
Common Equity Tier 1 ratio	.	9.6	15.4	15.3	16.2	14.9	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances)	.	9.1	35.3	37.3	31.3	22.2	.	.	.
Gross non-performing loans (% of gross loans) (9)	.	.	44.5	41.6	35.5	26.4	12.0	.	.
Cost of borrowing for corporations (%)	5.8	6.1	5.0	3.8	3.9	3.1	3.0	.	.
Cost of borrowing for households for house purchase (%)	4.4	4.0	2.9	3.3	2.9	2.7	2.5	.	.

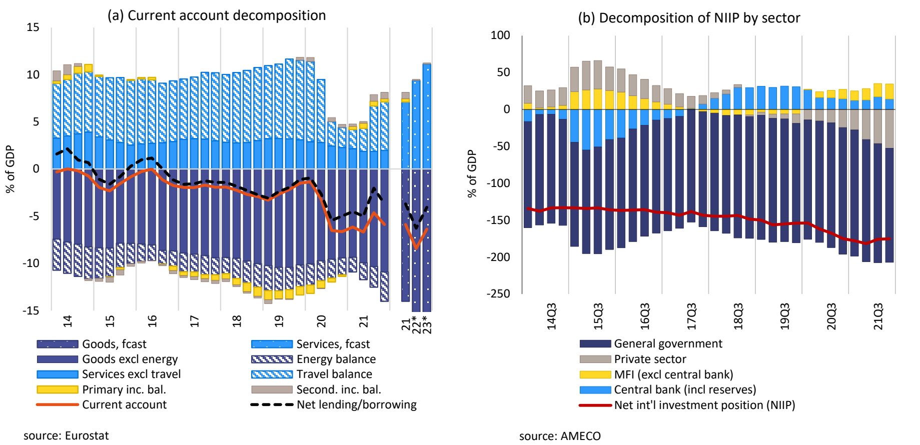
(7) Unweighted average of price-to-income, price-to-rent and model valuation gaps. The model valuation gap is estimated in a cointegration framework using a system of five fundamental variables; total population, real housing stock, real disposable income per capita, real long-term interest rate and price deflator of final consumption expenditure, based on Philiponnet, N., Turrini, A. (2017), "Assessing House Price Developments in the EU," European Economy - Discussion Papers 2015 - 048, Directorate General Economic and Financial Affairs (DG ECFIN), European Commission. Price-to-income and price-to-rent gaps are measured as the deviation to the long term average (from 1995 to the latest available year).
(8) Price-to-income overvaluation gap measured as the deviation to the long term average (from 1995 to the latest available year).
(9) Domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
Source: Eurostat and ECB as of 2022-05-02, where available; European Commission for forecast figures (Spring forecast 2022)

3. THEMATIC CHAPTER: EXTERNAL IMBALANCES

Introduction

Greece's net international investment position (NIIP) has been worsening continuously since the beginning of the pandemic, with signs of easing later in 2021. Greece's NIIP was on a deteriorating course even before the pandemic hit, a trend opposite to that observed for most of the euro area Member States, as GDP growth and the current account balance were not yet supportive of adjustment. Between the fourth quarter of 2019 and the second quarter of 2021, the NIIP worsened by nearly 27.6 percentage points of GDP, reaching -182% of GDP (Graph 3.1), due to the decline in GDP, a more negative contribution of financial flows, and negative valuation effects. Since the third quarter of 2021, there has been some adjustment, mainly on account of the rebound in nominal GDP growth. The NIIP is largely composed of external government debt from official creditors at concessional terms and with long maturities, which mitigates Greece's exposure to external shocks or shifts in market sentiment. The private sector's (non-financial corporations and households) position recorded a significant worsening, also because their loans were transferred from domestic credit institutions to specialized foreign financial institutions (Graph 3.1 (b)). These transactions are counterbalanced by a significant improvement of the NIIP of the financial corporations. On the basis of the Commission's spring 2022 forecast, the Greek NIIP is projected to reach the level of 168% and 162% by 2022 and 2023 respectively.

Graph 3.1: **Current account and NIIP decomposition**



Note: (1) forecast period uses NA-based figures. Total balance of goods and of services is shown for the forecast period
Source: Eurostat, AMECO

The deterioration in the NIIP during the pandemic crisis was reinforced by a large current account deficit, which is improving only gradually. The widening of the current account deficit from -1.5% of GDP in 2019 to -6.6% in 2020 ([32]) has been almost entirely driven by the collapse in international travel (Graph 3.3 (b)). With its partial recovery, the trade surplus in travel (tourism) services increased from 2.1% in 2020 to 5.1 of GDP in 2021. At the same time, the deficit in trade of goods widened by 2.9 pps. in the fourth quarter of 2021 compared to -13.0% of GDP in the first quarter of 2020. This is mostly attributed to a considerable increase in the imports of goods, as the increase of exports of goods as a share of GDP did not accelerate at the same pace. Overall, the current account deficit narrowed to -5.9% of GDP in 2021 ([33]). Going forward, the current account deficit is forecast to narrow to -4.0% of GDP by 2023, on account of the forecast recovery of tourism. The remainder of the section discusses the potential

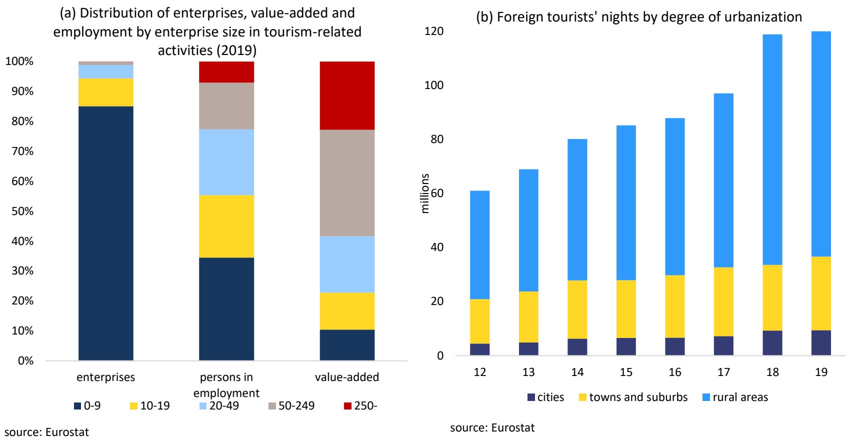
([32]) Balance of Payment concept.
([33]) From the sectoral perspective, the worsening of the economy's net borrowing position in the crisis was brought about by the general government's large net borrowing driven by the crisis and the costs of fiscal support, both in 2020 and 2021. Conversely, households moved to a small net lending position, as the saving rate increased considerably.

contribution of the tourism sector and exports of goods to a more structural improvement in the current account and the NIIP.

Tourism sector developments

Tourism is an important economic activity and a key source of export revenues for Greece. According to Balance of Payments data, the international tourists' receipts in Greece amounted to EUR 18.2 billion in 2019, roughly 10% of Greece's GDP and around 25% of its overall export revenue. The direct contribution of tourism to the aggregate output is estimated at 7.7% of the total GVA ([34]) in 2019 which is the highest among Member States with a large share of tourism ([35]). The tourism-related sectors in Greece account for almost 9.8% of total employment, more than Cyprus (9.1%) and Spain (8.7%) that follow in second and third place in the EU. The geopolitical developments and favourable demand conditions in international tourism before the pandemic, as well as the efforts to promote Greek tourism internationally, have contributed to an increase in the country's tourism revenues by almost 11.2% on average per year between 2017 to 2019.

Graph 3.2: **Key Ttourism sector developmentsindicators on Greece**



Source: Eurostat European Commission services

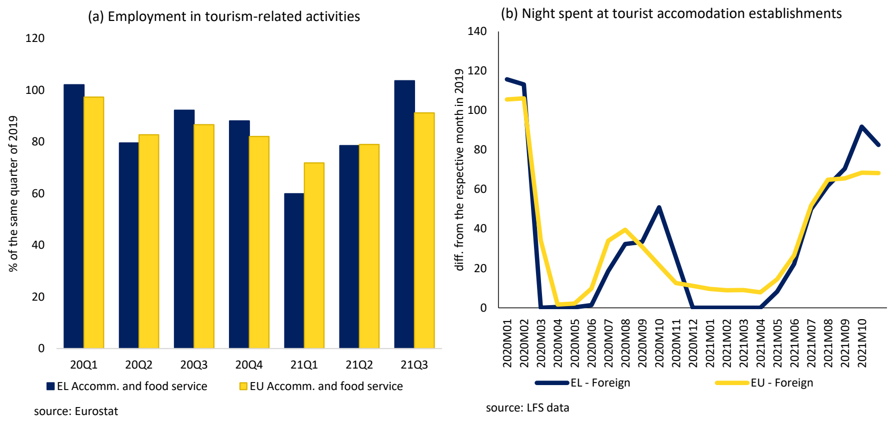
Tourism in Greece features a 'sun-and-sea' model with relatively long stays in coastal areas and high seasonality (Graph 3.2 **(b)).** The tourist season typically lasts between April and October, a period where almost 93.2% of the total international tourist arrivals in the country are observed. The length of the tourist season in Greece remains relatively short compared to most peers ([36]), mirroring a limited contribution from other tourist products, notably from 'city-breaks'. The strong brand name of Greek tourism allows the country to attract a diverse profile of international tourists, with the bulk of arrivals coming from the United Kingdom, Germany and France (almost 40% of total arrivals in 2019). The geographical structure of tourism in Greece contributes to the reduction of regional imbalances across the country, as most of the tourist activity is concentrated in coastal areas and notably islands.

The sector is dominated by small firms. Around 85% of enterprises active in the sector have fewer than 10 employees (Graph 3.2 (a)). These enterprises create only 10% of the sectoral value added. Investment in fixed assets in the sector remains subdued, but construction continued growing, reflecting the interest of large players to establish new hotel units across the country. As a share of GVA, investment in tourism in Greece stands below the respective level for most peers (6.5% on average between 2017 and 2019, as

([34]) According to 2019 data for the NACE sector *'Accommodation and food service activities'.*
([35]) According to 2019 data, Greece's share of sector *'Accommodation and food service activities'* in total GVA was considerably higher compared to Member States with a similar tourist model. The respective figure for Cyprus was 7.1%, while Spain, Croatia and Portugal follow with 6.4%, 6.3% and 6.1% respectively.
([36]) This concerns Member States with a large tourism sector which attracts a large share of tourists in coastal regions, notably Croatia, Cyprus, Italy, Malta, Portugal and Spain. The length of the tourist season in Croatia is the only exception, as it records more than 96% of its total tourist arrivals during the same period.

opposed to 14.6% in Portugal, 7.0% in Italy and 6.4% in Spain), partly linked to the strong seasonal pattern, the high share of micro enterprises and remaining investment bottlenecks ([37]).

Graph 3.3: **Employment in tourism-related activities and nights spent at tourist accommodation establishments**



Source: Eurostat

The restrictions that were brought about by the pandemic have disrupted the operation of the tourism sector, but 2021 saw a marked recovery. Foreign tourist arrivals in 2020 fell to 23.5% of 2019 the level, with the collapse being strong compared to similar destinations due to the greater dependence of Greek tourism on the aviation industry ([38]). The sector recorded a strong recovery in 2021, with the tourist receipts reaching 57.8% of 2019 level. The significantly improved tourist revenues in 2021 were complemented by an improvement of the average spending per person and night ([39]), linked to a higher share of arrivals from high income countries and a longer average stay per tourist. Employment in tourism-related activities recovered completely in the third quarter of 2021 (Graph 3.3 (a)).

The net credit flow to the tourism sector was not interrupted by the pandemic due to the liquidity support measures, but credit was mainly used to cover working capital needs. For 2020, the net credit flow, both in nominal terms and as a percentage of GDP, remained above the pre-pandemic level, but given the lower investment in fixed assets under the same period, a notable part of the credit expansion was used to cover working capital needs in view of the foregone revenues. No significant uptick in the sector's non-performing liabilities (NPLs) has been observed by the third quarter of 2021, in line with the evolution at aggregate level. The large majority of moratoria on loan repayments and enforcement has expired before the end of 2021, however a niche part of the businesses operating in the hospitality sector still benefit from payment moratoria, which are set to expire by the end of 2022 ([40]).

With tourism recovering to its pre-pandemic levels without significant long-lasting adverse effects, the challenge to move beyond the existing 'sun-and-sea' model re-emerges. The Greek authorities' recent reforms in the areas of investment licencing and cadastre planning are expected to facilitate investments in the sector, while also ensuring a stable environment for both domestic and international businesses. The efforts of the Greek authorities to depart from the traditional tourist model ([41]) are expected to be complemented by investments supported by Greece's recovery and resilience plan (RRP), including actions to better monitor and manage existing infrastructure and promote alternative tourist products such as agrotourism, diving and underwater tourism, health and wellness tourism. Similarly, a series of large infrastructure projects funded by the recovery and resilience facility, aim to upgrade tourist ports and marinas, while also upgrading the accessibility and improving the tourism experience to

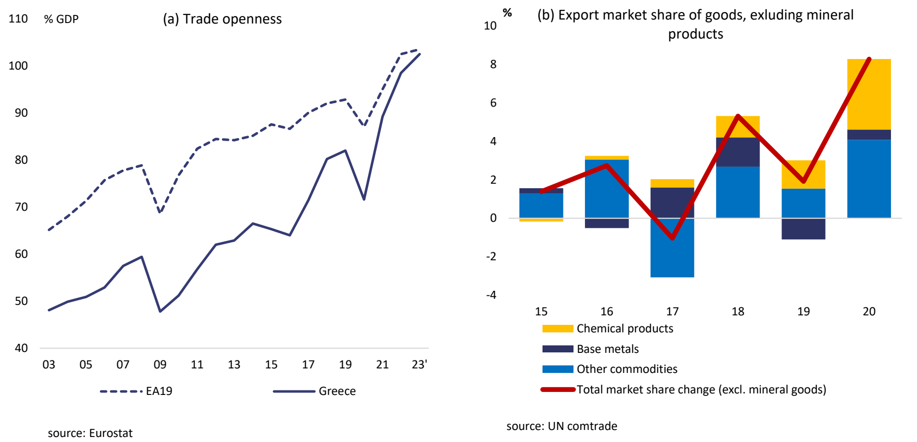
([37]) While work continues, certain factors continue to weigh on investment in tourist activity. These factors concern access to finance, skills shortages, and regulatory inefficiencies, as well as the lack of a comprehensive spatial planning framework.
([38]) According to 2019 data, about 85% of the total EU tourist arrivals in Greece visited the country by air, with Greece being among the Member States with the highest rate, behind Cyprus and Malta.
([39]) Computed as the ratio of foreign tourism revenue to the number of non-domestic overnights.
([40]) See 13th Enhanced Surveillance Report on Greece, February 2022.
([41]) As indicated in the Tourism Growth Strategy 2021 by the Hellenic Tourism Organizatrion (EOT). This strategy aims to reflect the latest trends in the tourism market, as well as the conditions that are formed in the international and domestic market as a result of the pandemic. Furthermore, the new strategy sets the general guidelines and a communication strategy, laying the foundation that will lead in a new promotion package for Greek tourism over the following years.

disabled persons. The RRP also includes large infrastructure projects in regions with significant tourist presence (waste management projects, irrigation and energy upgrade of islands). These efforts are key for laying out the fundamentals for attracting a wider spectrum of tourists in the longer term, as they aim to address long-standing issues pertaining to the absence of infrastructure that facilitates the implementation of large investment projects in certain areas.

Goods export performance

In the years before the pandemic, Greek merchandise exports recorded significant gains, as the economy was getting further integrated in the international markets. According to Balance of Payments data, goods exports in Greece amounted to EUR 32.4 billion in 2019 ([42]), about 45% of the country's aggregate export receipts. The competitiveness gains in the recent years ([43]), and the efforts to integrate the economy in international markets ([44]), have helped increase the share of goods exports as a percentage of GDP to 17.7% in 2019, 3.6 percentage points higher compared to 2015. Export growth over the years before the pandemic did not translate into an equally sized improvement in the trade balance, following the cyclical recovery of demand along with the high import content of the Greek GDP.

Graph 3.4: **Key export performance indicators on Greece**



Source: Eurostat, UN comtrade

Greek goods exports are concentrated in a narrow range of sectors and commodities but considerable market share gains were recorded over the last years. The largest share (15.1%) of export revenues is accounted for by mineral products, primarily refined petroleum, however this has a large import-content and does not have a big contribution to the goods balance. Base metals, chemical products, light machinery and food products complete the list of Greece's most exported commodities. Along with the exports in minerals, these products account for almost 70.5% of Greece's total exports in goods according to 2019 data. While overall Greece's exports (excluding oil products) decreased by 2.6% in 2020, this decrease was contained compared to the global fall in international trade, leading to important market share gains and continued the positive sentiment from the previous years (Graph 3.4 (b)). Chemicals have shown a considerable growth over the past years, both in terms of expanding into new markets ([45]) as well as recording gains in existing ones ([46]). It is indicative that the share of Greek

([42]) Source: Bank of Greece.

([43]) See 13th Enhanced Surveillance Report on Greece, February 2022.

([44]) These efforts concern the consolidation of the Ministry of Foreign Affairs' institutional reforms and the new economic diplomacy strategy, important actions that aim to create a coordinated framework for the development of export promotion tools across the country. Further policy actions that help integrate the economy in international markets include the upgrade of the regional infrastructure (e.g. regional airports, crossborder railways, marinas and ports), measures to promote the use of information and communication technologies by corporates, also in the form of tax incentives to businesses, efforts to promote the uptake of 'quality label' certifications, as well as actions to expand the tradable sectors through common cross-cutting policies.

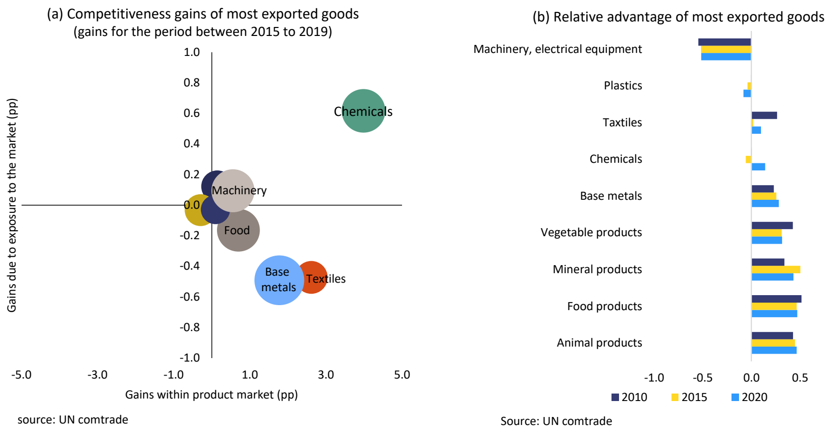
([45]) The decomposition is based on the shift-share methodology, which breaks down the market dynamism of a sector based on its penetration in geographical destinations (geographical exposure) or market gains in existing geographical markets (gains within product markets).

([46]) Exports of chemical goods improved their geographical presence worldwide in 2019 by more than 0.4 percentage points (vertical axis), while also improved their competitiveness across existing markets by around 1.0 percentage point (horizontal axis).

exports in chemical goods worldwide has been growing since 2016, posting a cumulative growth figure of 7.0% between 2015 and 2020 (Graph 3.4 (b)). Base metals and agricultural exports have also increased their share over the same period, and recorded a cumulative growth of 2.6% and 1.1% respectively. Greece's exports of mineral goods are dependent on international oil price movements, hence the respective market share shows a volatile outlook.

Greece remains a relatively closed economy considering its size (Graph 3.4 **(a)), but its participation in the global value chain has seen improvements.** By taking stock of its important geographical position in the European region and its strong shipping industry, Greece is slowly emerging to become a partner in the global value chain, where different stages in the production and consumption of materials and products take place in different parts of the world. This is also reflected in Greece's improving trade openness, defined as the sum of exports and imports over GDP, although coming from a relatively low level compared to its euro area counterparts (82.0% of GDP in 2019 compared to 92.8% of GDP in the euro area). On aggregate, the country has reported an increase in its participation in the global value chain over the last years ([47]) with gross exports embodying higher foreign value added in 2018 (30.7%) than in 2015 (25%). According to the same source, Greece's exports are mostly focused towards final goods, rather than intermediate inputs. This comes at a cost, since it implies an increasing reliance on foreign intermediate inputs that are used to produce exportable goods (i.e. greater backward participation in global value chains).

Graph 3.5: **Competitiveness gains of most exported goods /1 and relative advantage of most exported goods/2**



(1) The size of each bubble refers to the respective share of Greece's total exports
(2) The indicator is based on the symmetric revealed method. A positive sign indicates a comparative advantage
Source: UN comtrade

Greece's comparative advantage is concentrated in products with low technological sophistication. Comparative advantage refers to the country's ability to produce a particular good at a lower opportunity cost than its trading partners ([48]). Based on Greece's actual trade performance, its largest comparative advantages are concentrated in food and agricultural products (such as fruit and vegetables, oils, dairy goods, fish and aquaculture goods), commodities with limited value-added and low technological content (Graph 3.5 (b)). In addition, Greece specialises in traditional manufacturing industries (such as light machinery and plastics), which face strong competition from countries with lower labour costs. According to recent studies, only 8.5% of total Greek exports (excluding refined petroleum products) have comparative advantage in sectors with high global productivity ([49]). This mirrors structural features of the Greek economy, notably the small size of its enterprises, the lack of efficient infrastructure and the investment gap. The decline in unit labour costs achieved during and after the financial assistance programme has partially restored the country's cost competitiveness, but the abovementioned non-cost competitiveness factors remain a limiting factor to a further substantial increase in the exports-to-GDP

([47]) Source: OECD trade in value added (TiVA) 2021 ed.
([48]) The comparative advantage shows the degree of specialisation of a country's exports of goods relative to the rest of the world. According to Graph 3.5 (b), the relative symmetric comparative advantage index, or 'Balassa index' is used for calculating the relative advantage or disadvantage of a certain country in a certain class of goods as evidenced by trade flows. Positive values imply specialisation in the corresponding good.
([49]) Source: Piraeus bank, Greek export performance: tangible signs of improvement but much more is required, March 2019.

ratio. Nonetheless, the recent increase in research and development (R&D) expenditure ([50]) across the economy had a notable positive impact on the share of high and medium-high technology goods exports ([51]) (23.8% of total exports in 2021, up by 3.4 percentage points compared to 2015; but still below to the respective EU average.

Greece's recent and planned policy actions aim to overcome the still weak, although improving, export performance through both reforms and investments. The latest reforms in the area of investment licencing and trade facilitation ([52]) are expected to provide a boost to export performance through the simplification of processes, the acceleration of investment licensing procedures and the promotion of foreign direct investment. More specifically, a major investment licensing reform was initiated during the economic adjustment programmes that involved the simplification and digitalization of the administrative licensing procedures in a number of economic activities, including transport-related services, as well as the streamlining of the inspections framework, notably in the areas of food, product safety and environmental protection. The investment licencing reform allowed the transition towards a simplified system based on risk-based ex-post inspections. An Integrated Licensing Information Management System (ILIMS) is under development to facilitate licencing procedures. Further, a number of digitalization and administrative initiatives were successfully implemented to facilitate the simplification of transactions with the State, including business registration processes.

Moreover, Greece's recovery and resilience plan outlines a significant effort to increase extroversion and facilitate investments in sectors where Greece can improve its comparative advantage. For instance, the plan outlines actions to upgrade the country's infrastructure, notably in the transport sector. Through promoting high-quality and multimodal transport, these investments are expected to reduce the respective transport costs for exporting firms. Together with the reform of the regulatory framework of public contracts, this is expected to improve connectivity in all parts of the country and promote exporting activity in businesses located in broader geographical areas. These actions are intended to facilitate the greater openness of the economy and the further integration on the global supply chains. Further interventions in the field of business environment target on increasing the relative weight of tradable sectors in the domestic economy, strengthening the export orientation of Greek corporates and provide greater incentives for strategic investments, inter alia, to attract foreign capital inflows towards sectors with significant extroversion.

([50]) According to Eurostat data, Greece's gross domestic expenditure on R&D as a share of GDP has increased from 1.0% in 2016 to 1.5% in 2020 and slowly converges to the respective EU average of 2.3% in 2020.
([51]) Source; OECD bilateral trade by industry and end-use.
([52]) Placeholder with a description of the measures and a reference to our ESurs/CRs.

Table 3.1: **Selected external indicators, Greece**

		2003-07	2008-12	2013-17	2020	2021	2022f	2023f
Flows [1]	*Source:*							
CA balance as % of GDP, NA	*(b)*	**-11.5**	**-10.4**	**-1.8**	**-7.9**	**-8.3**	**-8.4**	**-6.4**
CA balance as % of GDP, BoP	*(a)*	-10.8	-10.0	-1.3	-6.6	-5.9	-6.0	-4.0
Cyclically adj. CA balance as % of GDP [2]	*(c)*	-10.7	-13.5	-8.1	-13.4	-11.7	-9.9	-6.5
CA req. to stabilize NIIP above -35% [3]	*(c)*	1.0	3.2	1.1	0.6	-0.4	0.7	1.4
CA explained by fundamentals (CA norm) [4],[8]	*(c)*	-2.0	-1.5	-1.1	-0.8	-0.8	-0.6	-0.5
Required CA for specific NIIP target [5]	*(c)*	1.7	4.7	5.0	6.0	6.5	7.5	7.6
Trade bal. G&S, % of GDP, NA	*(b)*	-9.9	-8.1	-1.6	-7.6	-7.9	-8.1	-5.9
Required TB for specific NIIP target [5]	*(c)*	3.1	5.5	5.0	6.2	6.9	8.0	8.2
Stocks								
NENDI as % of GDP	*(a)*	**-63**	**-96**	**-129**	**-155**	**-152**		
of which: net portfolio debt	*(a)*	-43	-25	38	76	82		
of which: net mutual fund shares	*(a)*		0	4	5	6		
of which: net other investment	*(a)*	-15	-71	-171	-236	-243		
NIIP as % of GDP	*(a)*	**-80**	**-94**	**-137**	**-175**	**-175**	**-168**	**-162**
Prudential NIIP/NENDI benchmark [8]	*(c)*	-60	-55	-46	-44	-46	-46	-46
Fundamentally expl. NIIP benchmark (NIIP norm) [8]	*(c)*	-16	-22	-37	-46	-41	-41	-40
Gen. Government NIIP	*(a)*		-94	-151	-174	-155		
Private Sector NIIP	*(a)*		13	17	-25	-52		
of which: Net FDI [6]	*(a)*	-6	-1	-5	-12	-14		
MFI (excl CB) NIIP	*(a)*		12	13	10	20		
Oth. financials NIIP	*(a)*		5	1	-1	-2		
Central bank NIIP	*(a)*		-31	-17	14	14		
of which: Reserves	*(a)*	1	2	3	6	7		
of which: Target2	*(a)*		-36	-37	-49	-57		
Value-added trade and capital account								
VA imports % of agg. demand [7]	*(d)*	25	25	27				
Capital account bal. as % of GDP, NA	*(b)*	1.8	1.7	1.9	2.0	2.1	2.2	2.3
Indicators in % of potential GDP					0.0	0.0	0.0	0.0
CA balance as % of potential GDP, NA	*(b,c)*	-11.9	-10.0	-1.5	-6.9	-7.8	-8.2	-6.3
CA balance as % of potential GDP, BoP	*(a,c)*	-11.1	-9.5	-1.2	-5.8	-5.6	-5.9	-4.0
Cyclically adj. CA balance as % of potential GDP	*(c)*	-11.0	-12.5	-7.0	-11.6	-11.1	-9.6	-6.5
Trade bal. G&S, as % of potential GDP, NA	*(b,c)*	-10.2	-7.7	-1.4	-6.6	-7.5	-7.9	-5.9
NENDI as % of potential GDP	*(a,c)*	-65	-88	-112	-135	-144		
NIIP as % of potential GDP	*(a,c)*	-82	-87	-118	-153	-166	-164	-162
Capital account bal. as % of potential GDP, NA	*(b,c)*	1.9	1.6	1.6	1.8	2.0	2.1	2.3

Abbreviations: NA=National Accounts, BoP=Balance of Payments, CA=Current Account, NENDI= NIIP excluding non-defaultable instruments, VA= Value Added, TB= Trade Balance.
(1) Flow data refer to national account concept, unless indicated otherwise.
(2) Cyclically adjusted CA is the CA adjusted for the domestic and foreign output gaps, taking into account trade openness.
(3) The average CA needed in order to stabilise the NIIP is based on European Commission "T+10" medium-term projections.
(4) The CA explained by fundamentals refers to the expected CA given the level of its fundamentals with respect to world average. (5) The CA or TB needed either to halve the distance to fund. NIIP benchmark, or to reach the prud. NIIP benchmark in 10Y, whichever is higher. Based on European Commission "T+10" medium-term projections.
(6) In case private-sector FDI is not available, total economy FDI is displayed.
(7) VA imports as % of aggregate demand describes the % of aggregate demand that is sourced from foreign value added.
(8) More information on benchmark indicators methodology can be found on B1 intranet.

Source: (a) Eurostat, (b) Ameco, (c) European Commission calculations, (d) WIOD database.