



Strategic Analysis

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GREECE: TIME TO REDUCE THE DEPENDENCY ON IMPORTS

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The financial crisis in 2010–12 and the imposed austerity that followed made prospects for a quick recovery unattainable for Greece, even before the COVID-19 pandemic hurt the country's tourism-dependent economy more than any other euro-member country. To add insult to injury, the inflationary spiral—caused, to a large extent, by the pandemic-related supply chain disruptions and further exacerbated by the Ukraine-Russia conflict—inflicted yet more pain on Greece's import-dependent energy and foodstuff economy. Inflation rose at levels last seen in the 1990s, and only recently does the average rate seem to have declined—with some exceptions for the inflation rates on foodstuffs in particular, which are reminiscent of the even higher levels of the 1980s. Despite the difficulties in negotiating ever-increasing prices of basic goods with limited disposable income levels, it appears that the Greek economy has turned the corner rather impressively since 2021, recording GDP growth of 8.1 percent followed by 5.9 percent in 2022 according to the official statistics. Yearly data are not yet available for 2023, although estimates show positive growth even higher than in most eurozone countries. According to Eurostat, the real gross per capita income adjusted for social transfers in kind, was up by 1.6 percent in 2022, recording the second largest increase in the EA20 average of -0.9 percent. GDP per capita, however, masks economic distribution problems and cannot therefore be a reliable measure of economic performance, as we will see with the analyses of other performance measures that follow.

As argued in our previous reports (Papadimitriou et al. 2022a, b), the public sector's intervention helped to not only maintain, but also enhance private sector consumption. We estimate that this occurred in 2023 as well. In addition, public investment, mainly from the NextGeneration EU temporary recovery funds (Recovery and Resilience Facility [RRF]) designated for physical and social infrastructure projects, played a significant role in reducing unemployment—though the latter is still at the second highest rate in the EU after Spain. The RRF temporary funds were intended to support the economic recovery from the pandemic and build greener, more digital, and more resilient economies to face the challenges of climate change and geopolitical risks. Greece, though

it has recovered from the pandemic, needs to improve its health care and education system—among the weakest in the EU—enlarge its employment base, determine economic sectors that can reduce its import dependence, speed up the process of digital transformation, and focus on greening its economy. This is clearly a tall order, but Greece has, for example, many IT-trained individuals wishing to stay home rather than go abroad, and a large potential to reduce energy imports by investing in technology that will efficiently harness its windy and sunny skies, boosting green growth (Papadimitriou et al. 2023a, b).

The latest IMF consultation report (2024) revised the growth rates for Greece, indicating a slowdown and forecasting growth rates of 2.3 percent for 2023 and 2.1 percent for 2024, with further declines to 1.2 percent by 2028. Significant growth drivers for 2023 were private consumption, supported by many government programs, and public investments from NGEU funds. Euphoric projections were included in the Autumn 2023 Economic Forecasts of the EC, with a Greek GDP growth rate of 2.4 percent in 2023 (among the highest in the EU27), 2.3 percent in 2024, and 2.2 percent in 2025. Finally, the 2024 government budget submitted to Parliament projects a 2023 growth rate of 2.4 percent, increasing to 2.9 percent in 2024. All in all, considering these growth rate projections in the context of those of other European countries gives a sense of the Greek economy diverging from those of the North, i.e., Germany, Netherlands, Austria, and France.

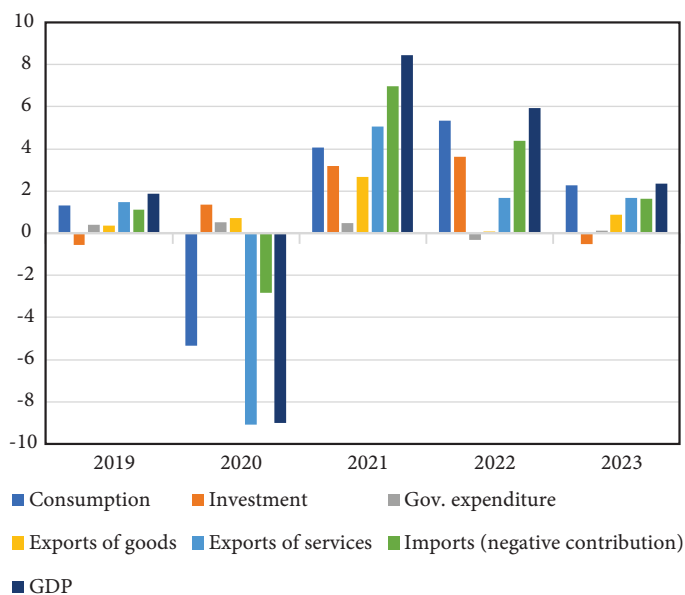
Austerity: A Tragic Fallacy

To put the result in the main text in an historical context, exports in 2022 were 33 percent higher—at constant prices—than in 2007, the latest peak in real GDP. Real GDP is still 19.5 percent below its previous peak, with household and government consumption lower by 14 and 15 percent, respectively, and gross fixed capital formation down by a hefty 50 percent!

This is the outcome of the perverse logic of austerity policies imposed on Greece after 2011. The philosophy that inspired these policies was based on the assumption that—because lower government deficits would translate into lower expected future taxes leading to an increase in the propensity to spend out of income—fiscal consolidation combined with wage discipline would reduce government deficits while increasing the current account balance, with only minor temporary effects on private demand.

The Greek economy has demonstrated the tragic fallacy within the dangerous idea of austerity.

Figure 1 Greece. Contributions to GDP Growth (percent YoY)



Source: ElStat

Specifically, the annual growth rate of real GDP in the third quarter of 2023 is reported at 2.1 percent for Greece, against an expected average of only 0.3 percent for the euro area and 0.2 percent in the largest European economy, Germany.¹ Considering the quarterly growth rates, however, ElStat reported a deceleration of the growth rate in the third quarter over the previous one of only 0.02 percent, compared to a contraction of 0.1 percent in both Germany and the euro area. The decelerating growth rate denotes the presence of some exogenous shocks negatively affecting the euphoric forecasts. For Greece, these include the devastating floods that hit the Thessaly region at the beginning of September that year, higher increases in imports in relation to exports, continuing the high rates of VAT taxes in addition to dramatic increases of price levels in foodstuffs mentioned earlier, and other adverse impacts from the continuing Ukraine-Russia war together with the new Israel-Gaza war affecting prices due to higher shipping costs. All these do not bode well for the Greek economy and will undoubtedly prevent the projected high growth rates from materializing.

In this report, we will investigate in more detail the determinants of the recent performance of the economy, to evaluate if the growth trend can be sustainable over the medium term.

In Figure 1, we observe the contributions to growth of the major components of GDP, from the dramatic drop in 2020 due

to the COVID-19 pandemic to the end of the first half of this year, where the data measure the growth rate as compared with the same period in 2022.

As the figure shows, tourism—i.e., exports of services—has not been the major determinant of growth since 2022, and the largest positive contribution is now driven from household consumption.

We assume that the increase in consumption has been the outcome of processes working in opposite directions: to verify whether it can be sustained, it is crucial to shed light on the dynamics of inflation, its impact on real wages, dissaving and/or borrowing, and the prospects of the fiscal policy stance, which up to now has been extensively relaxed to lessen the effects of the COVID-19 shock and those of inflation.

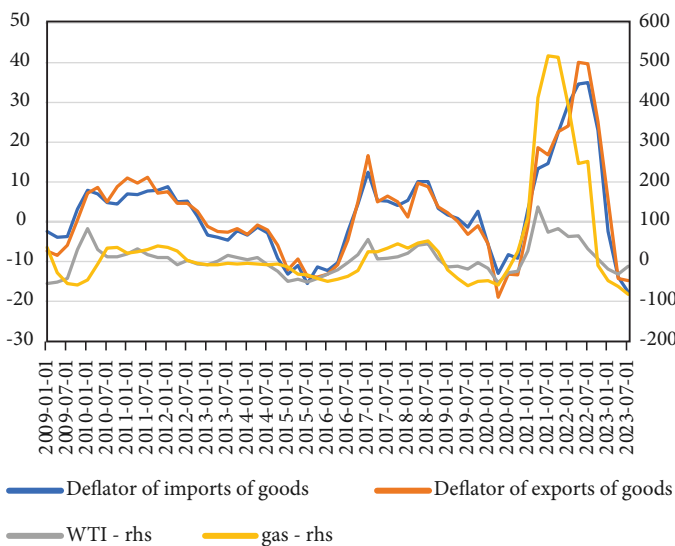
Energy Prices and Domestic Inflation

The public debate has mostly focused on the recent surge in the international price of energy, and hence on inflation, mainly due to the invasion of Ukraine and the introduction of sanctions against Russia affecting foodstuffs as well. The Israel-Gaza war and other frictions in the Middle East are causing shipping costs to rise, adding fuel to price levels. However, the shock to the international prices of energy started with the supply chain disruptions connected to the COVID-19 pandemic. In Figure 2, we report the annual change in the global price of natural gas, published by the IMF, along with the West Texas Intermediate

(WTI), a common measure of the international price of oil. The former reached a minimum in the midst of the COVID-19 crisis, in May 2020, at \$1.4 per 1MMBTU, to rise to \$37.4 in December 2021, before the invasion of Ukraine. With the war and the sanctions, the price jumped even higher to \$70 in August 2022, but has been declining steadily after that date, to \$11 in December 2023, the same price it had on average in 2013–14. Similarly, the price of oil collapsed with the lockdown in 2020 to a minimum of \$16 per barrel in April, to recover rapidly, reaching almost \$72 in December 2021, with a further jump probably connected to the Ukrainian crisis, up to \$115 per barrel in June 2022. The price has declined steadily since then to \$70 in June 2023, the same price it had in December 2023, after a short increase in 2023Q3. Figure 2 shows the impact on the prices of Greek exports and imports. According to our estimates—and as is shown in the figure—these prices are strongly correlated with the current and the lagged movements in international energy prices.²

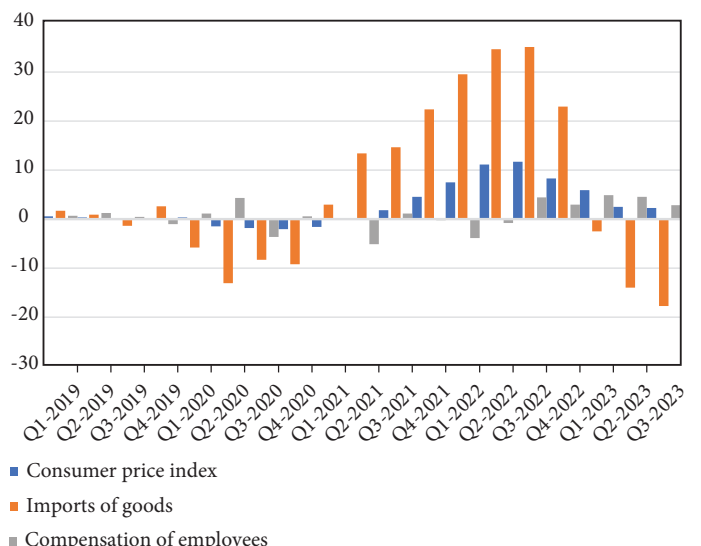
Most economists consider the worsening of inflation to be the result of employee demands for higher wages to keep up with inflation. The following two Figures (3 and 4) dispute this claim for Greece. Figure 3 shows imported inflation to be falling while nominal wages have been losing ground until recently, when they seem to be recovering due to increases in the minimum wage, which impacts wage averages. Figure 4 shows the falling trend of the real wage since 2021 based on two measures.

Figure 2 Price Indices (annual percent change)



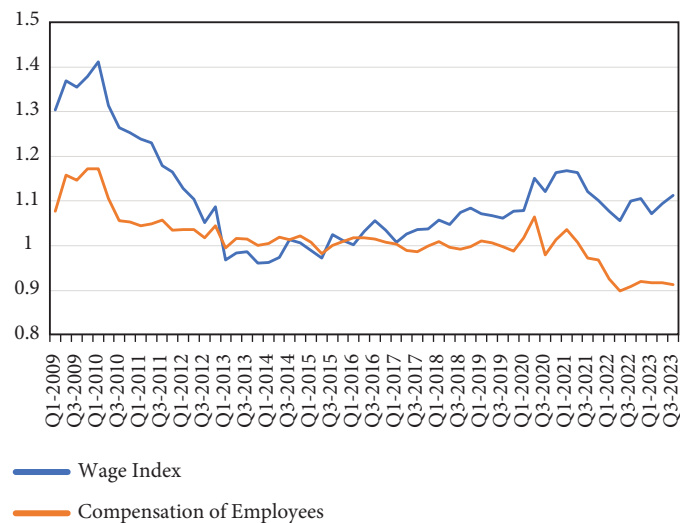
Source: ElStat & FRED

Figure 3 Greece: Prices and Wages



Source: ElStat

Figure 4 Greece. Real Wage Indices



Source: ElStat

The one determined by the index of real wages published by ElStat has a better performance than the other index obtained by dividing the compensation of employees by the number of employed persons (both divided by the CPI). According to the latter measure, real wages have remained stable from 2013 to 2021, and have fallen in the last year with imported inflation. The government announced another small increase in the minimum wage beginning in 2024, in compliance with the EC Directive (2022) for minimum wage convergence.

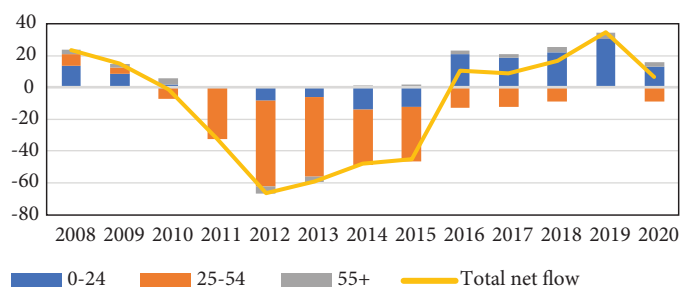
An issue much discussed of late is the developing demographic conundrum that will become serious in the years ahead.

Population Dynamics

An examination of the population dynamics of Greece reveals the influence not only of the birth and death rates, but also significant migration patterns, indicating a complex picture of demographic shifts. The interplay of these factors determines the overall population balance, with net migration flow playing a crucial role. Net migration, calculated by subtracting the natural population movement (birth–death balance) from the annual estimated population, can indicate either an influx (positive balance) or an exodus (negative balance) of individuals, without specifying the exact numbers of those entering or leaving the country.

From 1957 to 1974 (with the sole exception of 1965), Greece experienced a net migratory loss, a trend that was reversed from 1975 to 2009 (Missos et al. 2022). The return to a net outflow

Figure 5 Greece. Net Migration Flow by Age-Group



observed from 2010 to 2015 is notable for several reasons: it (1) marked the first break in the population inflow since 1974, (2) occurred under a different socio-political context, (3) was characterized by the more pronounced population aging than in the earlier period, and (4) was more intense on an annual basis compared to the pre-1974 outflow. The situation began to improve from 2016, with net migration turning positive. Greece’s aging population issue is, however, exacerbated by the age composition of migration flows, especially post-2008.

The general positive migration balance from 2016 onwards notwithstanding, the analysis of specific age-group migrations reveals a concerning trend. The older age group (65 years and over) continues to migrate into Greece, while younger and economically productive age groups (30 to 64 years old) have predominantly been leaving, a trend that has only been partially reversed since 2016, as shown in Figure 5.

The most striking feature observed is the negative dominant orange segments within the bars, representing the 25–54 age group. This demographic, often considered the most economically productive due to its typical peak earning years and workforce participation, consistently comprises the majority of net migration flow. The prominence of this age group in the migration data underscores its significant role in the labor market and potential impact on the economy.

Another critical observation is the new trend in total net migration flow evident in the year 2020. This increase (without considering the effects of the pandemic started in the same year) suggests a reversal of the net influx of migrants observed in the previous two years, where the total net migration had reached positive points. These demographic patterns underscore the unique challenges faced by Greece, where the aging population issue is expected to persist with worsening prospects for population stability.

Trade and the Balance of Payments

According to ElStat, for the entire year of 2023, Greece's trade figures decreased. Exports fell by 8.7 percent, representing €4,848.2 million less than the previous year, and imports declined by 13.3 percent, a decrease of €12,587.1 million. This more pronounced decline in imports resulted in a 20 percent improvement in the trade deficit, amounting to €7,744.9 million.

When petroleum products are excluded, the decrease in trade volume is less significant. Exports fell by 3 percent, to €35,174.2 million in 2023, from €36,245.5 million in 2022. Imports decreased by 4.1 percent, to €60,496.6 million in 2023 from €63,054.7 million in 2022. Consequently, the trade deficit saw a 5.5 percent improvement, from €26,809.2 million in 2022 to €25,322.4 million in 2023.

Despite the general decline in export performance compared to 2022, Greece saw improvements in traditional sectors such as food, machinery, and vehicles, and experienced growth in fats and oils, as well as beverages and tobacco. Foodstuffs increased by €623.5 million (9.0 percent), machinery and vehicles by €64.7 million (1.3 percent), beverages and tobacco by €127.8 million (11.1 percent), fats and oils by €388.3 million (37.1 percent), and unclassified products by €452.5 million (293.8 percent) compared to the previous year.

An analysis of the trade dynamics of primary export commodities shows evidence that, with the exception of aluminum, the country imports significantly more than it exports for the three other main goods, as illustrated in Figure 6. The analysis is derived from examining the net-trade value of key goods, i.e., petroleum products are aggregated with crude oil to provide a comprehensive overview.

Figure 6 Greece. Net Trade Value of Key Goods (Exports-Imports)

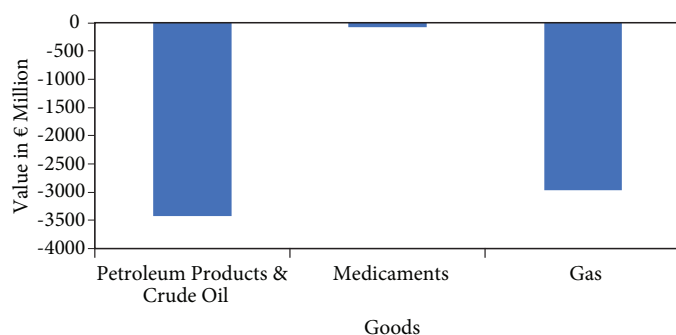


Figure 7 Greece. Net Trade Value of Goods Categories (Exports-Imports)

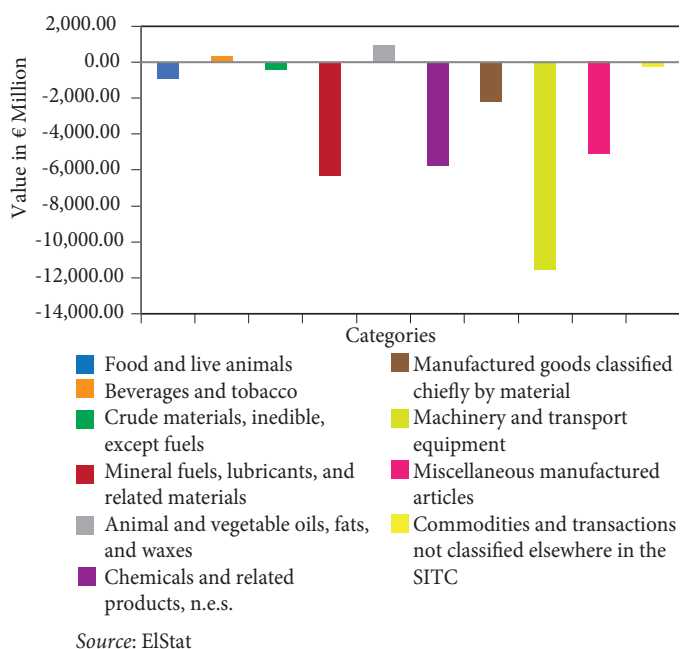
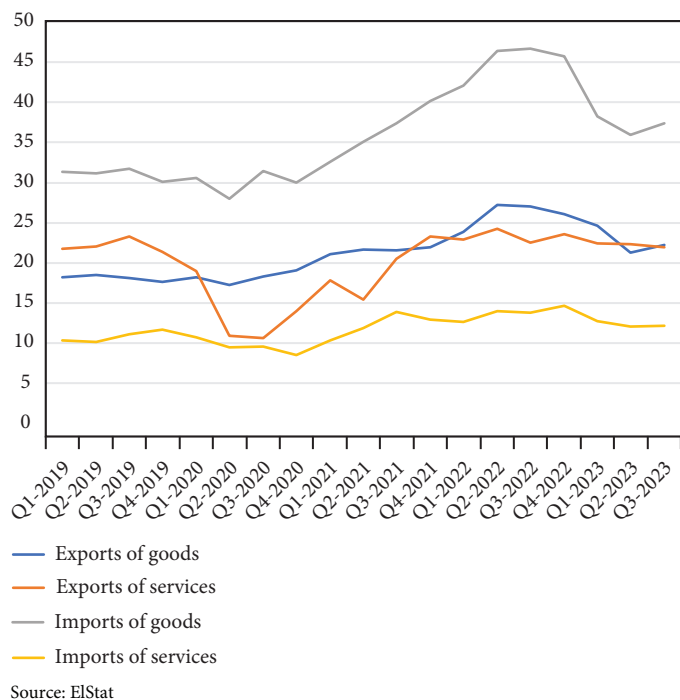


Figure 8 Greece. Components of Trade at Current Prices



This pattern of trade becomes even more pronounced when we broaden the analysis using the international trade classification (SITC 1) goods data for their categorization. Within this framework, we discover that, among the ten defined categories, Greece's imports exceed exports in eight categories, sparing only beverages and tobacco, along with animal and vegetable oils, fats, and waxes as documented in Figure 7. This trend underscores a significant reliance on foreign production for a wide range of commodities, particularly industrial products, highlighting the country's substantial dependence on international markets for its economic sustenance.

Figure 8 reveals the dynamics of international prices with the implied deterioration of the trade balance; that is, when the import of goods increases (mainly due to the increase in the relative price of imports, together with a low import elasticity), increases in exports lag behind.

Figure 9 shows the deterioration of the current account balance, starting with the COVID-19 lockdowns and the collapse of exports of services while continuing with rising imports relative to GDP, and not only due to energy prices. There are notable monthly improvements in narrowing the current account deficit starting in September 2023 and continuing through November 2023 from data recently provided by the Bank of Greece. For the month of November 2023, the current account deficit was €3.30 billion, compared to €3.91 billion for the same month in 2022.

Sectoral Balances

As the readers of our Strategic Analyses are aware, we give particular attention to the interplay of the three macroeconomic sectors' financial balances. Figure 10 shows how the deficit in the current account balance, together with the stable government deficit, implies a deterioration in the private sector balance, now close to the negative level it reached before the Great Recession.

The deterioration in the private sector balance is not documented in the data provided by the Bank of Greece, however. To the contrary, as Figure 11 illustrates, the capital account of the private sector shows a surplus rather than a deficit as predicted by nonfinancial accounts. Even though the two trends appear similar, the variations are very significant—not only among the recent periods. The latter is more vividly shown in Figure 12, denoting the large variation between the sectoral and capital accounts measures for households, while Figure 13 confirms the excess cash, with the steep upward trend in bank deposits

Figure 9 Greece. Current Account Balance (percent of GDP, 4Q m.a.)

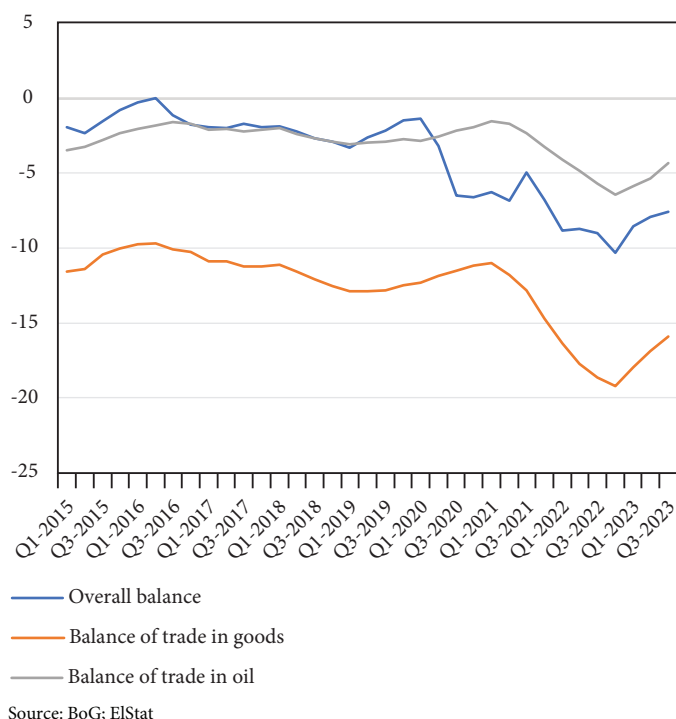


Figure 10 Greece. Sectoral Balances (percent of GDP, 4Q m.a.)

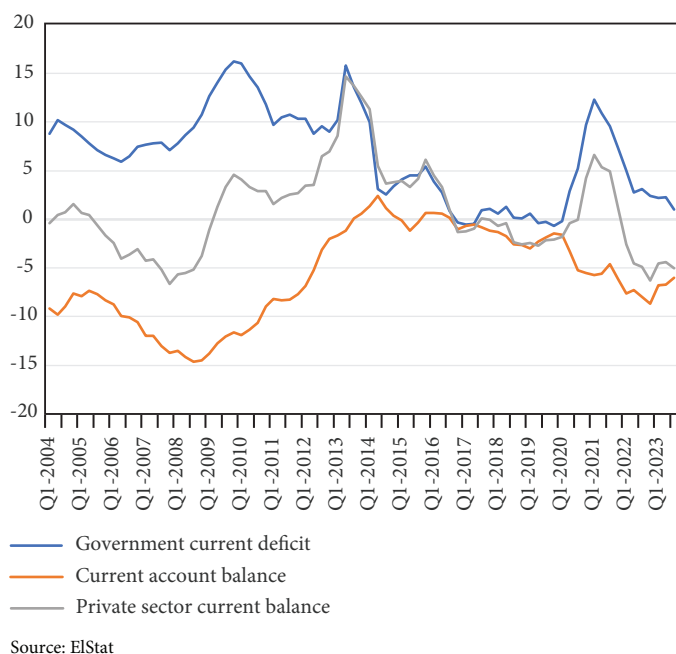
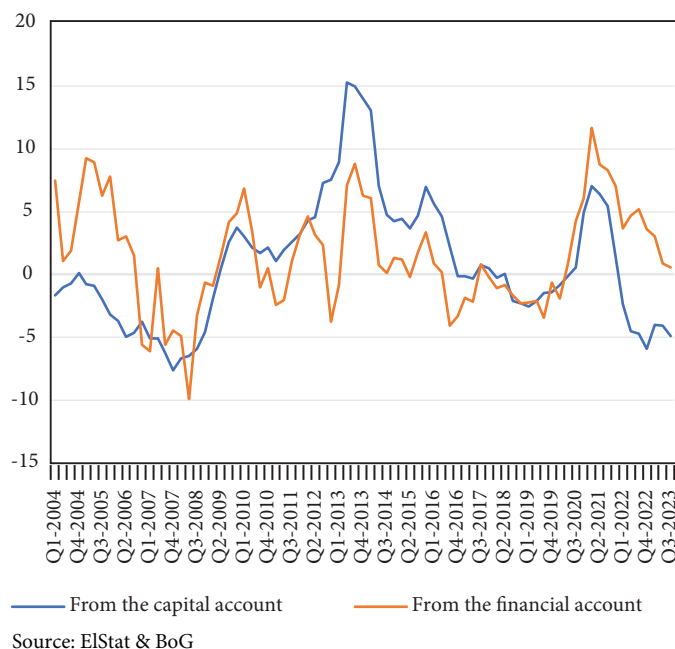


Figure 11 Greece. Private Sector NAFA (percent of GDP, 4Q m.a.)



coinciding with the inflated housing market and sales to foreign buyers.

Turning to the nonfinancial corporate sector, we observe that the variation between the two measures follows a reverse pattern: the sectoral account measure is in surplus while the capital account is in deficit, as documented in Figure 14.

Baseline Scenario

Our reports provide simulations of the paths the three institutional sectors are likely to follow for the intermediate period. As always, we use assumptions as neutral as possible for our baseline simulation and alternative scenarios. In our simulations, we assume, among other things, the likely behavioral paths of monetary and fiscal policy variables.

Monetary policy

The central banks of the developed economies have implemented tight monetary policies by increasing short-term interest rates as an antidote to the resurfacing of inflation, and the ECB has followed the same stance. Despite the tight monetary policy stance, however, long-term interest rates have not reacted in a similarly increasing trend, the result of which is an inverted yield curve. This is important when assumptions are made regarding the likely course of interest rates for newly

Figure 12 Greece. Household Net Lending (percent of GDP, 4Q m.a.)

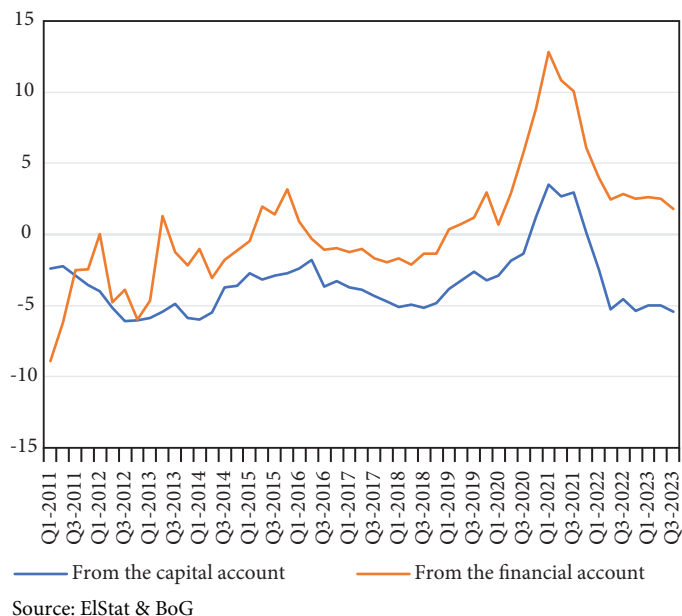


Figure 13 Greece. Household Deposits (€ million)

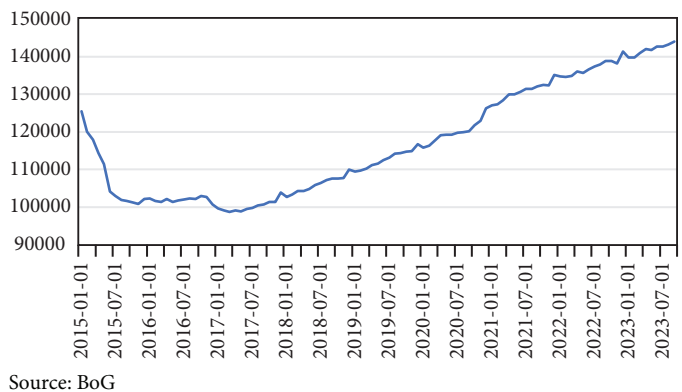
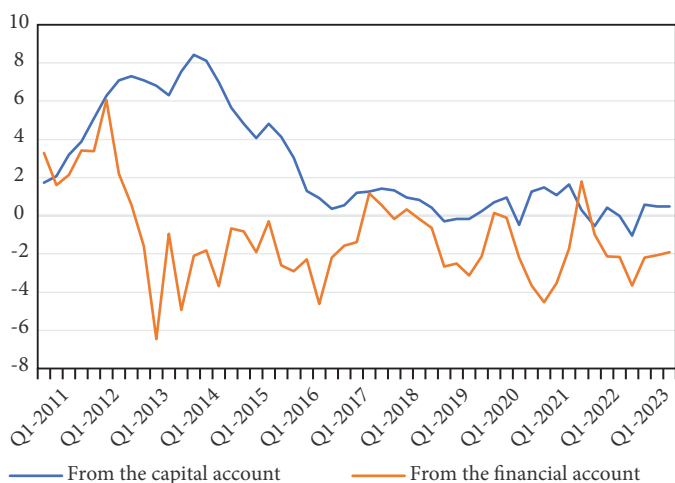


Figure 14 Greece. Nonfinancial Corporations: Net Lending (percent of GDP, 4Q m.a.)



Source: ElStat & BoG

issued long-term government securities. For our simulations we assumed that interest rates on government debt will not increase further, and they will be gradually reduced by about 150 basis points in the first three quarters of 2024, following the credit rating upgrades from the three main credit rating agencies (Moody’s, S&P, and Fitch). We assume, furthermore, that the drop in interest payments would affect mainly nonresidents, as residents will continue to receive a steady flow of income from this type of investment.

Fiscal policy

Government collective consumption has increased slowly in the last three quarters, but remained consistently below the inflation rate. Government support for individual consumption peaked in the first quarter of 2023, before decreasing in the last two quarters. The combined behavior implies a decreasing trend in overall government consumption. Given the government’s various announcements for the net gain of expenditures in the health care and education sectors—with the new hires of doctors, nurses, and teachers starting in 2024—we project a rebound of the government consumption variable.

Government investment

Government investment is expected to increase substantially from the implementation of projects funded from the NGEU program. Recently, the European Commission, following its assessment, authorized the release of Greece’s third request for

payment of €3.4 billion—a combination of grants and loans—under the NGEU’s RFF. This third payment will be added to the already received €11.1 billion. The data available from the accounts of the general government show an increase from 2020 to 2021 of about €1 billion, and from 2021 to 2022 of about €790 million. Government investment in the third quarter of 2023 has increased by almost €400 million against the same quarter of 2022, reflecting the disbursement of NGEU funds. Although these transfers should continue smoothly in the coming months in 2024, it remains to be seen whether they will be spent on a timely basis. We project government investment to remain stable in real terms, but higher than its average in the pre-COVID period by about €500 million per quarter.

Social benefits

Social benefits have increased by €268 million in the first quarter of 2023 (quarter over quarter), but have subsequently declined by €333 million in the second quarter and by €24 million in the third quarter, despite the increase in the number of beneficiaries. We project social benefits to remain stable in real terms for 2024 and 2025.

Subsidies to businesses have provided major support to lessen the impact of the COVID-19 pandemic, and were kept at a high level in 2022, partially offsetting the negative shocks from import prices and, by implication, the impact on domestic prices. By now, they have returned to pre-COVID levels in the first three quarters of 2023, and we assume they will remain stable in nominal terms at their pre-COVID level during the simulation period.

The **indirect tax rate** revenues increased substantially in 2022. A recent EC report on indirect tax collections showed Greece to be improving significantly in the area of narrowing the gap between the theoretically expected indirect tax revenues and the actual revenues collected. The improved trend, started in 2020, is expected to improve even further as Greece lags very much behind the EU27 average. We adopt an ex-post measure of the indirect tax rate, which increased from about 17 percent in the fourth quarter of 2022 to 19 percent in the second quarter of 2023, to fall back to 16.7 percent in the third quarter. We project this rate to remain stable in the simulation period.

The ex-post implicit **direct tax rate** was 11 percent on average in the pre-COVID period from 2014–19, and dropped by several percentage points during the pandemic, only to increase back to 10 percent on average in the 2021–22 period. There has

been a steady increase in the last two available quarters to 13 percent and this might increase due to the recent enactment of legislation establishing a compulsory minimum income for all self-employed individuals and small businesses on which taxes would be based. Since the effect on additional taxes collected regarding this new legislation is unknown, we assume the 13 percent to remain stable in the simulation period.

The ex-post rate of **social contributions** was about 10 percent lower in 2023Q1 relative to its 2014–22 average. Although it has recovered in the last two quarters, we assume it will remain stable in the simulation period, rather than increasing back to its previous average.

Current **transfers to the government from abroad** have increased since 2017, when they were at €3.6 billion, reaching €5.8 billion in 2020, the year of the pandemic, further increasing to €7.5 billion in 2021 and falling back to €6.6 billion in 2022. These transfers most likely include NGEU funds, and we project they will remain stable in the projection period up to 2025.

Prices

In the third quarter of 2023, the deflators for both imported and exported goods stopped their descent, and it is not easy to predict whether they will remain stable—as happened in the 2018–20 period—or resume a moderate growth, as in the 2016–18 period. Given this uncertainty, we assume that **import prices** (i.e., the deflator for imported goods) will stabilize in our projection period. A similar projection is assumed for the deflator of imports of services.

On this basis, we expect the **domestic price level** (i.e., the deflator for household consumption) to increase at an annual rate of 4 percent in the last quarter of 2023, and then converge toward 2.6 percent starting from the first quarter of 2024 and onward.

Nominal wages have lost ground against prices in the third quarter of 2023, but we assume they will keep pace with inflation from the last quarter of 2023 and onward.

Housing market

In the last three quarters of 2023, the index of the market price of dwellings has increased on average by 8 percent annually, the result of increased demand from foreign buyers under the Golden Visa program, as well as institutions and Greek residents. We project this price to keep increasing, albeit at a slower annual rate of 6 percent, up to the fourth quarter of 2024, and

then to slowly converge toward a growth rate of 2 percent for the rest of the simulation period.

We assume the acquisition of nonproduced, nonfinancial assets from foreigners will continue in 2024, but at a slower pace.

The impact of the floods

By many counts, the September floods in the Thessaly Region and elsewhere will reduce domestic consumption and, by implication, increase imports of goods in the second half of 2023.

In its budget submitted to Parliament, the government included financial support measures to offset the effects of natural disasters that amounted to approximately €600 million per year beginning in 2024. This is far too small to even offset the costs of the flood in Thessaly—an estimated €2.8 billion—let alone all other environmental disasters of the past summer. We assume the €600 million will be transferred to the private sector through higher subsidies in 2024 and thereafter.

Projection Results

The projections of our baseline scenario (Table 1) reveal that growth of output for 2023 will be lower than the government’s and EC’s projections, at 1.9 percent, while in this year and the next, growth of GDP will be 0.7 percent and 1.7 percent, respectively. Exports of goods and services will continue to increase, but will be partially offset by imports, while private consumption will decelerate because of more limited government support and declining purchasing power due to the increased price level of basic goods. The government sector will register both primary and total surpluses in 2023 and these will increase further in 2024 and 2025, reducing the ratio of debt to GDP, but still remaining the highest among the eurozone member states.

Table 1 Greece: Baseline Projections

<i>Annual growth rates</i>	2023	2024	2025
GDP	1.9	0.7	1.7
Consumption	0.4	-2.4	0.2
Investment	3.7	-4.7	0.8
Government expenditure	0.8	-0.8	1.3
Exports of goods and services	3.9	7.1	5.9
- Exports of goods	2.1	0.9	1.2
- Exports of services	5.9	13.9	10.5
Imports of goods and services	0.6	0.8	2.4
- Imports of goods	0	-2.3	-0.7
- Imports of services	2.5	10.5	10.6
<i>Percent of GDP</i>			
Total Government surplus/deficit	0.8	1.4	3.0
Primary Government surplus/deficit	4.2	4.1	5.2

Source: Authors’ calculations

Conclusions

Notwithstanding the geopolitical instability from the continuing Ukraine-Russia and Israel-Gaza wars and the higher-than-expected inflation rates, especially in basic goods, Greece has managed to register the highest growth rates among eurozone member states in 2021 and 2022. Despite the momentum, growth rates—based on 2023Q3 official statistics—will decelerate beginning in 2023 and continue decelerating in the next two years. The Levy Institute's GDP growth projections show they will be 1.9, 0.7, and 1.7 percent in 2023, 2024, and 2025, respectively. The pessimism reflected is due to the deceleration of private consumption expenditures, the significant loss of production due to climate damage from floods and fires, the inability of the government to deploy financial resources for the speedy remedy of that damage, and the delays in progress and completion of infrastructure projects financed from European NGEU funds.

Exports of goods and services will continue to register increases, especially in tourism-related activities. Government surplus-biased budgets are projected to result in primary and total surpluses, which, together with relatively high inflation, will increase nominal GDP that in turn will significantly improve the debt-to-GDP ratio. Higher tax revenues—direct, indirect, and inflation-assisted—will take a toll on household incomes, decreasing consumption expenditures, a primary cause of lower GDP. Official statistics from ElStat show improvements in decelerating unemployment even though the number of registered unemployed individuals in the Department of Labor Ergani Report (2024) is much higher than that reported by ElStat (2024). Lower wages together with longer work weeks provide a disincentive to many skilled individuals, who opt to move abroad for better employment opportunities in concert with their skill or remain temporarily unemployed. Employers resort to the hiring of immigrants and refugees. The continuing brain drain of the most economically productive individuals is a concerning trend, especially within the overall demographic dynamics of the aging Greek population.

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Data Sources

ELSTAT: <https://www.statistics.gr> and various reports

Bank of Greece: <https://bankofgreece.gr/> and various reports

Eurostat on imports <https://ec.europa.eu/eurostat/databrowser/bookmark/7fb8bef0-9a61-43ed-9e1c-1bf60a08ff92?lang=en>

International Monetary Fund, Global price of Natural gas, EU [PNGASEUUSDM], retrieved from: FRED, Federal Reserve Bank of St. Louis: <https://fred.stlouisfed.org/series/PNGASEUUSDM>

Trading Economics: various reports

Notes

- 1 Data from Trading Economics and the Eurostat database, accessed January 18, 2024.
- 2 In addition, a regression of the deflator of imports of goods against the two measures of international energy prices shows that the deflator has fallen more in 2023 than would have been predicted by the regression.