



Overview of the report





Increased uncertainties and challenges in the global environment

- Rising geopolitical tensions: flare-up in the Middle East, the war in Ukraine continues, and the global balance is at stake
- Increased uncertainty and costs in global trade and energy markets
- Pressure on European economies, challenges for their relative competitiveness
- Inflation persistence, central interest rates to remain high for the foreseeable future, deficit in supply-side interventions





Greek economy: positive course, with risks

- **Growth dynamics** stronger than European averages
- Enhanced creditworthiness due to the recovery of the "investment grade" after 13 years
- **Short-term challenges**, from the European environment, for exports and investments
- The Greek economy has a lower starting point (in terms of investments, employment, incomes) and faces tougher **future challenges**, especially in terms of public debt and demographics
- Need to support a faster change of the productive model





Global economy: steady growth in Q2, deteriorating sentiment in Q3/2023

- Global growth stabilized around a low rate in the second quarter, under the influence of high inflation and monetary policy tightening.
 - > 0.5% annual growth in the Eurozone (down from 1.1% in the previous quarter), 2.4% in the US (up from 1.7%), 6.3% in China (up from 4.5%), 1.6 % (same as in the previous quarter) in OECD countries.
- Inflation in OECD countries is gradually declining; it reached 6.4% in September, and is still high now (core inflation is at 6.8%)
- Central banks are systematically raising interest rates; the ECB has made 10 consecutive increases since July 2022
 resulting in a 450bps cumulative increase.
- International markets and economic sentiment have been deteriorating after the summer
 - > New flare-up in the Middle East, uncertainty remains about the duration of the war in Ukraine
 - > After a hiccup in the first half, international energy prices have resumed their upward trend.
- International institutions forecast...
 - > OECD: 3,0% global growth in 2023, 2,7% in 2024.
 - ➤ ECB: Weaker growth in the Eurozone, +0,7% (down from 0,9%) in 2023, +1,0% (down from 1,5%) in 2024. Strong inflationary pressure 5,6% (up from 5,4%) in 2023 and 3,2% (up from 3,0%) in 2024.





Global environment: immediate challenges

Global challenges

- Uncertainty regarding the development of the crisis in the Middle East and the intensity and duration of the impact of the war in Ukraine
- Restraining inflationary pressures without causing a recession
 - Need for monetary and fiscal policy coordination with the aim of balancing between price stability and targeted support measures
 - ➤ Tighter monetary policy (FED, ECB) → negative effect on demand visible → duration of maintaining high interest rates → financial stability
- High public debt, limited fiscal space in developed economies

European challenges

- Persistent core inflation
- Effects of ECB monetary policy tightening and rising borrowing costs
- Pending revision of EU fiscal rules
- Effective utilization of the European Recovery Fund
- Diversification of energy sources and energy security in the medium term
- Adverse demographic trends





Greece Q2/2023: Enhancement of domestic recovery

Real GDP Q2/2023: +2,7% y/y

The growth rate increased, (from +2.0% y/y in Q1), driven by private consumption and fixed investment

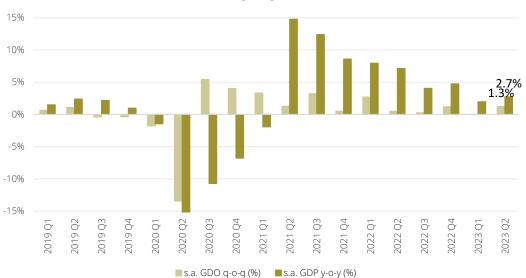
Resilient consumption (private +3,2% y/y, public -1,4% y/y) Marginal increase in investment due to inventory reduction (+0,2 %y/y, fixed investments +7,9% y/y)

Significant decline in exports (goods -1,8%y/y, services +1,3% y/y)

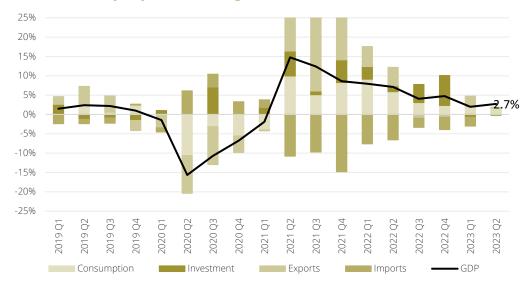
Slower deceleration of imports
(goods -1,2%y/y, services +6,1% y/y)

Historically high extroversion (82% of GDP)

seasonally adjusted GDP



y-o-y % s.a. GDP growth and contributions

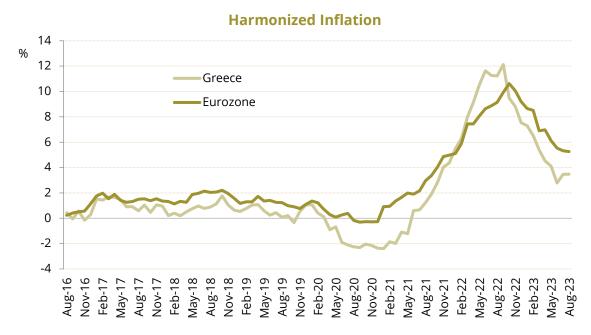


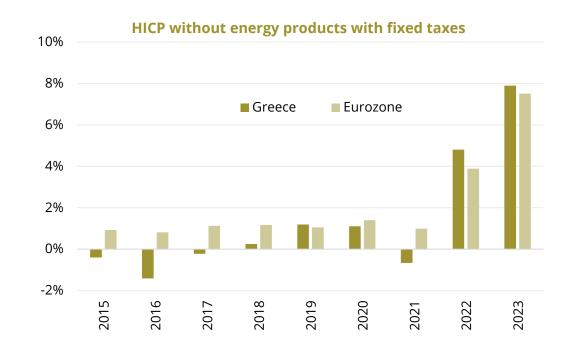
Source: ELSTAT





Inflation decreased in the first eight months of 2023 to 3.8% y/y, down from 9.9% last year: energy goods prices fell, but there is still pressure on food prices





Sources: ELSTAT, Eurostat

Eurozone: De-escalation of inflation in the first eight months of 2023; it reached 6.7%, down from 7.6% a year ago.

Greece: The Domestic Price Index rose by 2.7% in August, up from 2.5% in July.

- First eight months of 2023: +4,7% HICP rate of change, down from 9.2% in the first eight months of 2022, exclusively from the increasing effect of non-energy goods (7.4%). The effect of energy goods was negative (-2.7%), while the effect of indirect taxes was zero.
- ➤ In September, the rate of change of the HICP is expected to reach 2.4%, down from 12.1% a year ago.

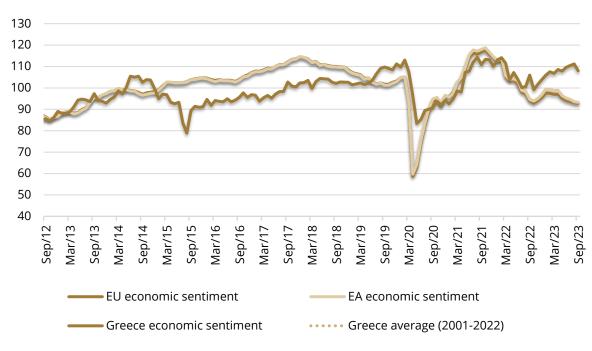
Producer Price Index (Jan. – Aug. 2023): 6.4% decline, due to energy goods prices, down from 39.8% a year ago.



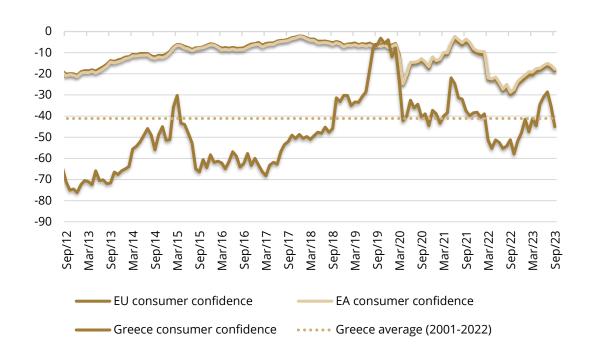


Marginal improvement in economic sentiment in the third quarter of 2023; it is significantly higher than last year

Economic Sentiment Indicator



Consumer Confidence Index



Sources: IOBE, European Commission

Significant improvement in Consumer Confidence within 2023; it is much lower compared to the Eurozone, however.





Short-term activity indicators: momentum in construction and tourism, fatigue in industry, decline in retail trade

Industry

• Industrial production increased by 0.7% in the eight months of 2023; smaller increase compared to the first eight months of 2022 (4.4%).

Construction

- Construction output rose by 17.1% in H1/2023, down from 21.8% in H1/2022.
- The number of Construction Projects increased by 20.4% (following a 18.1% increase in 2022).

Tourism

• Tourism turnover continues to grow - 15.0% year-on-year growth in Q2/2023.

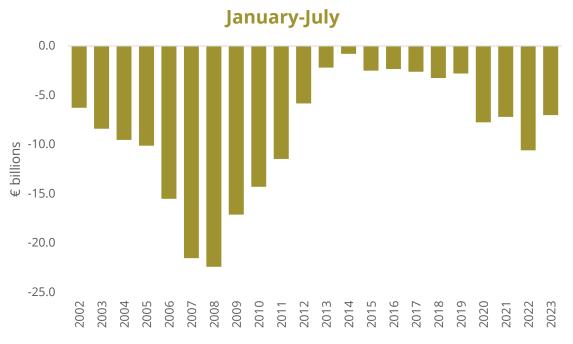
Retail Trade

- 3.5% decline in Retail Trade volume in the first seven months of 2023, down from a 5.1% increase in the same period in 2022.
- Expectations recovered in the first half of 2023.

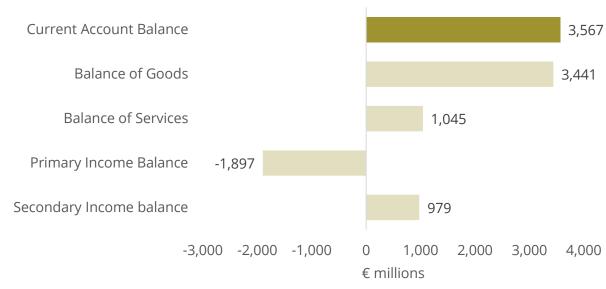




Improvement in the current account deficit in the first 7 months of 2023; it reached €7.0 billion, down from €10.6 billion in 2022







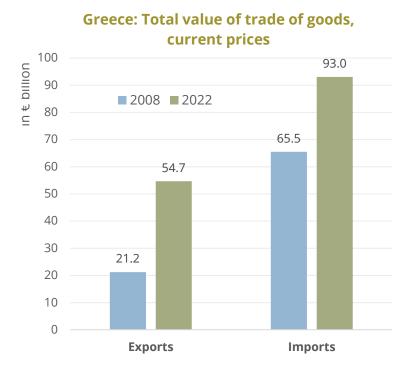
Source: BoG

- Significant reduction in the balance of goods deficit by €3.4 billion, with a reduction in exports and a greater decline in imports.
- > Small increase of 3% in exports of other goods (excluding fuel and ships). **Fuel exports** decreased by 17% while **imports** decreased by 24%.
- > Improvement in the surplus of services, with Tourism revenue increasing by €1.7 billion and transport revenue decreasing by €1.5 billion.
- **Deterioration in primary incomes,** due to income outflow (profits, interest, dividends).
- ▶ **Improvement the secondary income balance,** 2nd tranche of Recovery and Resilience Facility RRF since January.

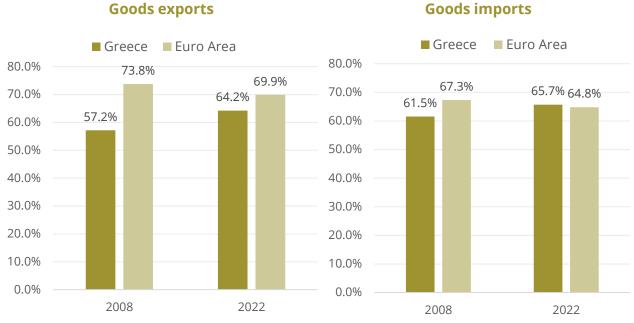




Higher concentration of trade flows, either geographical or sectoral, increases the exposure to exogenous shocks



Degree of concentration for trade of goods, in Greece and the Euro Area, 2008 and 2022



Sources: ELSTAT, KEEM, Eurostat, Data processing: IOBE. Note: The degree of concentration is calculated as the sum of shares of the top three 1-digit product categories (SITC), in terms of nominal value, over the total nominal value of exports (imports) of goods.

- The **degree of concentration of Greek trade flows** has increased in specific product (broad, 1-digit) categories after the crisis, contrary to the degree of concentration of Euro Area trade flows, which decreased during 2008-2022.
- Greek good exports record lower product concentration compared to the EA average. On the contrary, Greek good imports record
 higher product concentration compared to the EA average.





Public finances: cash target exceeded in the first eight months of 2023

General government balance Jan.-Aug. 2023 (cash basis)

- €445,3 million surplus (€778,5 million last year)
- €5,47 billion primary surplus (€4,53 billion last year)

State budget Jan.-Aug. 2023 (cash basis)

- €92 million deficit or 0,0% of GDP (target was €2,4 billion deficit)
- €5,6 billion primary balance or 2,5% of GDP (target was €2,3 billion surplus)

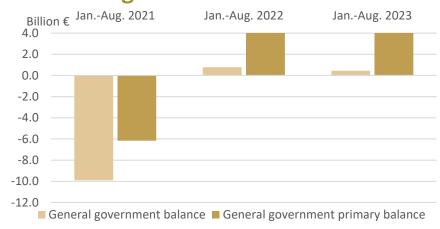
Improvement from last year due to the increase in revenue (+9,9%)

Increase in most revenue categories compared to last year

Target exceeded also due to decreased expenditure (-€2.27 billion)

Reduced expenditure due to fewer than expected grants to social security organizations

General government cash balance



Source: Ministry of Finance

2024 draft State Budget

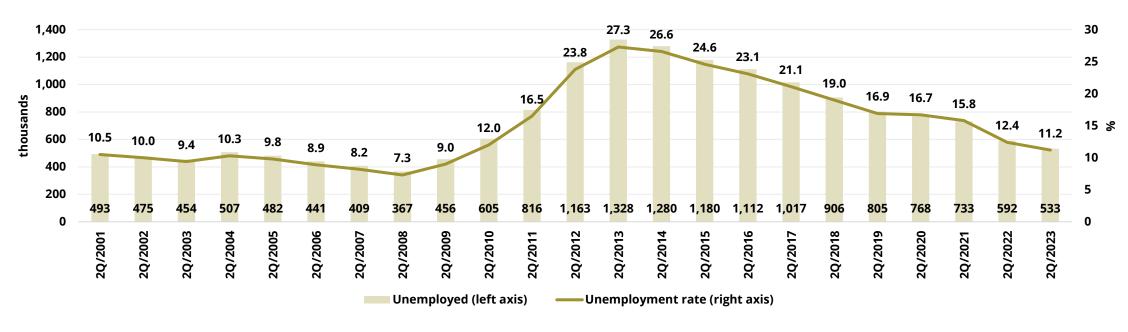
- General government primary surplus target of 1.1% of GDP in 2023 and 2.1% of GDP in 2024
- Target for general government debt of 159.3% of GDP in 2023 and 152.2% of GDP in 2024
- Income support measures with an estimated fiscal cost of €2.13 billion.





The unemployment rate continues to decline

Number of unemployed persons and unemployment rate in Greece



Source: ELSTAT

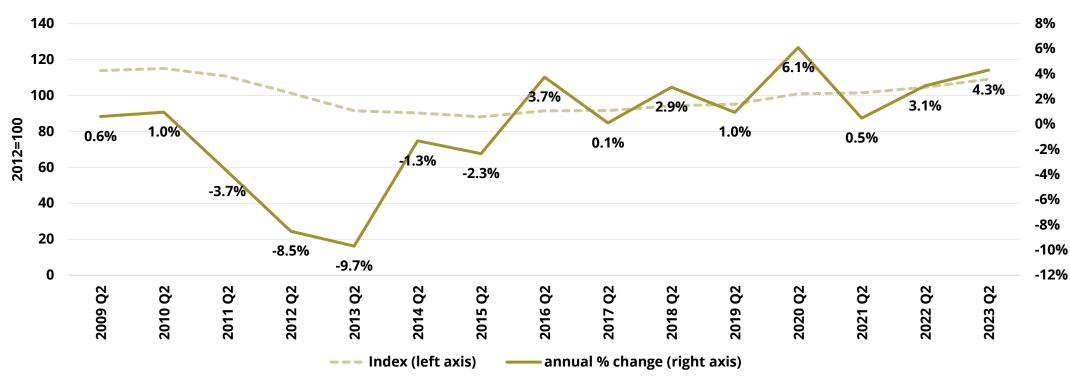
- The unemployment rate reached 11.2% in Q2/2023, down from 12.4% in Q2/2022 and 15.8% in Q2/2021.
- > Employment increased in 11 sectors. Indicatively: Transport-Storage (+26.0 thousand employees), Healthcare-Social care (+14.8 thousand), Financial services-Insurance (+14.6 thousand), Tourism (+12.7 thousand)
- Employment decreased in 8 sectors. Indicatively: Wholesale-Retail trade (-25.1 thousand employees), Arts-Entertainment (-10.9 thousand)
- The employment inflow-outflow balance was positive (+280.8 thousand) in the first eight months of 2023 and higher compared to the balance in the first eight months of 2022 (+237.2 thousand).





Systematic increase in wage costs

Seasonally adjusted wage cost index



Source: ELSTAT

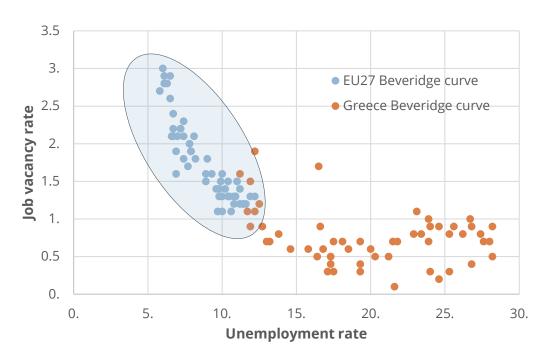
➤ 4.3% y/y change in the second quarter of 2023



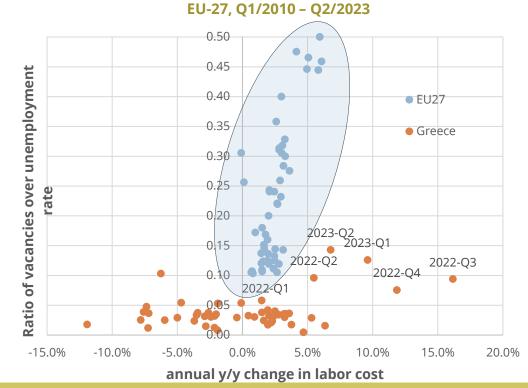


Evidence of high levels of structural and frictional unemployment in the Greek labor market

Beveridge Curve for Greece and EU27, Q1/2010 - Q2/2023



Correlation of the labor market tightness index with the wage cost index: Greece &



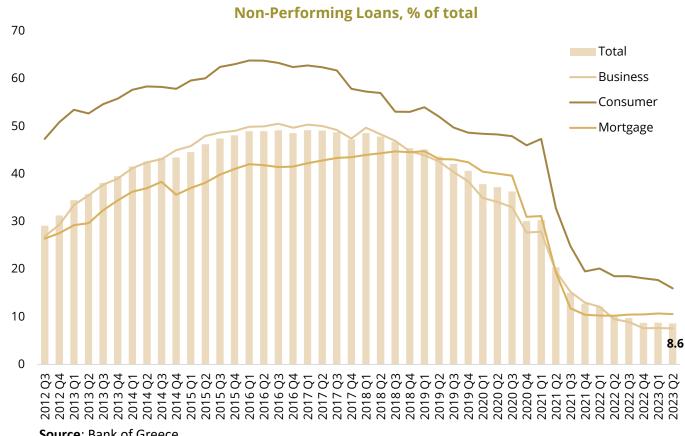
Source: Eurostat, Data processing: IOBE

- Job vacancies are less negatively correlated with unemployment in Greece than in the EU27, a sign of labor market inefficiency.
- Wage growth is less positively correlated with a higher labor market tightness index in Greece than in the EU27.
- These are indication of a mismatch between worker skills and job demand needs. This translates into a high natural rate of unemployment, i.e., unemployment even when the economy is producing its potential output.





Non-performing loans (NPLs) were stagnant in the first half of 2023, at 8.6% of total bank loans...



...remaining higher than the Eurozone average. They continue to burden the economy, considering the offbalance sheet stock.

Positive developments: Increased profitability of banks, stability of private deposits

Negative developments: Slowdown in net new credit to businesses, rising financing costs, contraction in credit to households

Challenge and opportunity: Acceleration in the implementation of the loan arm of "Greece 2.0"

Source: Bank of Greece

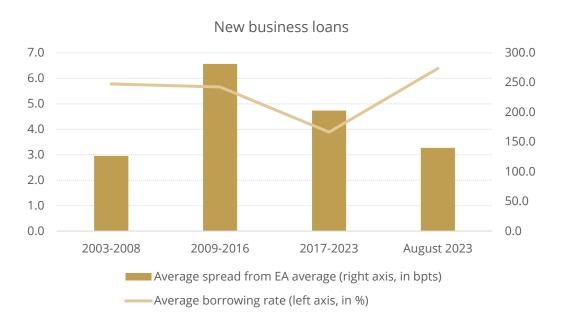


^{*} On-balance sheet loans (before provisions) for all Greek banks on a non-consolidated level.

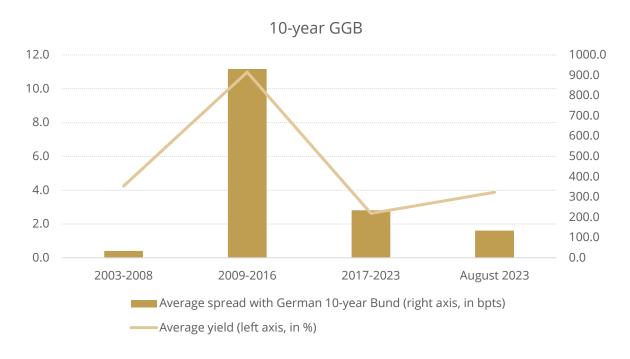


The financing costs "gap" remains higher compared to the pre-crisis era

Cost of new business bank financing, Greece compared to the Eurozone average



Cost of new government funding, Greece compared to Germany



Source: ECB, Data processing: IOBE

- The cost of private business borrowing in Greece has always been more expensive than in the corresponding European average.
- Recently, the cost of private borrowing financing has been converging towards the European average, allowing Greek households and businesses to borrow on more equal terms relative to the rest of Europe.
- Amidst the current global rise in government bond yields, the rise in Greek bonds is milder than the corresponding rise in government bond yields in the Eurozone, resulting in a narrowing of the relative spread.



2023 and 2024 macroeconomic forecasts

2023 baseline scenario

- of 0.7% growth in 2023 and 1.0% in 2024, 5.6% inflation in 2023 and 3.2% in 2024 (up from 3.0%); energy prices and interest rates also evolve according to the ECB's baseline scenario.
- The war in Ukraine continues at a similar intensity to that of 2022. Coupled with the geopolitical instability in the Middle East, international prices of energy commodities will move slightly upward in 2024, following the EIA's baseline scenario.
- o Interest rates follow the trend of today's futures. Euribor is expected to peak at 4% in the fourth quarter of 2023, and to decline to an average rate of 3.7% in 2024.
- Timely implementation of the "Greece 2.0" Plan in 2024, without further delays.
- Slightly higher public spending compared to the 2024 State Budget draft target.
- o Inbound tourism records an annual increase. Compared to 2019, higher nominal annual revenues are expected in 2023. In 2024, the positive performance in real terms is maintained.
- The recent natural disasters have incremental effects on inflation in the last quarter of 2023 and in 2024 and a small negative effects on GDP in 2024.

2023 forecasts

- Growth: ≈ 2,4%
- Private consumption: ≈ 2,0%
- Public consumption: ≈ 0,6%
- Investment (Fixed): ≈ 3,0% (10,0%)
- Exports: ≈ 3,5%
- Imports: ≈ 2,6%
- Unemployment: ≈ 11,0%
- Inflation: ≈ 4,3%

2024 forecasts

- Growth: ≈ 2,4%
- Private consumption: ≈ 1,4%
- Public consumption: ≈ -1,0%
- Investment (Fixed): ≈ 7,8% (10,0%)
- Exports: ≈ 2,6%
- Imports: ≈ 2,3%
- Unemployment: ≈ 10,5%
- Inflation: ≈ 2,6%





Risks and positive prospects

Risks

- Geopolitical and economic instability at the regional and international level.
- Possibility of a sharper rise in international energy good prices towards the end of 2023.
- Tighter fiscal and monetary framework both in Europe and domestically.
- Persistent inflation in necessities. Loss of competitiveness due to the higher than the Eurozone average core inflation after mid-2022.
- Increase in the loan-deposit interest rate margin and systematically negative household savings rate.
- Risk of a new surge in arrears and NPLs.
- Slowdown in the sectoral diversification of the productive base, e.g., fatigue and fluctuations in industrial production.
- Rise in developed economies' debt and in 10-year government bond yields.
- Pressure on the fiscal balance, following the recent natural disasters.

Positive prospects

- The recovery of the investment grade by more international rating agencies reinforces the expansion of the investment base.
- Maintenance of high levels of extroversion, with a gradual improvement of the external balance
- Reforms in the medium-term (2023-2027), following the formation of a single-party government.
- Design of a new framework of fiscal rules in the EU and timely use of new financing tools such as REPowerEU.
- The reduction of NPLs will free up productive resources.
- Significant backlog of construction projects.



Special study* «Climate change adaptation: Challenges and prospects for the Greek economy»

*IOBE study (2023), on behalf of the Center for Climate Change and Sustainability of the Bank of Greece

Available <u>here</u>



Climate change adaptation and the Greek economy

The need for climate change adaptation

Overview of global adaptation

Adaptation in Greece

Private sector role

Conclusions and recommendations

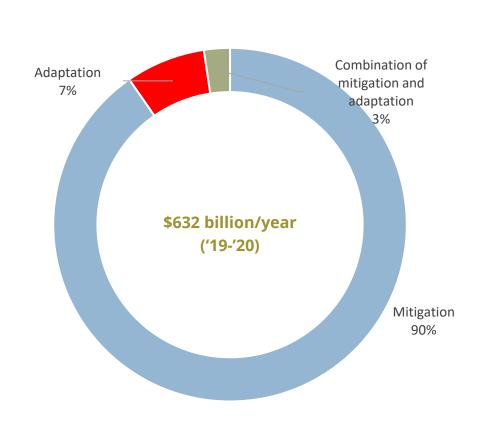
- Even if climate change mitigation were to occur without delay, there would still be significant consequences from the way climate change is evolving
- The effects of climate change extend to all sectors and branches of the economy
- Material risk, risks related to the institutional framework. and changes in input prices are among the biggest challenges for entrepreneurship
- Estimating the magnitude of adaptation is difficult, making it hard to estimate the cost of non-adaptation as well, which for developing economies ranges from \$160-340 billion (until 2030).
- For Greece, according to a study by the Bank of Greece, the implementation of climate change adaptation measures can reduce the cumulative damages from climate change by up to €123 billion by 2100.



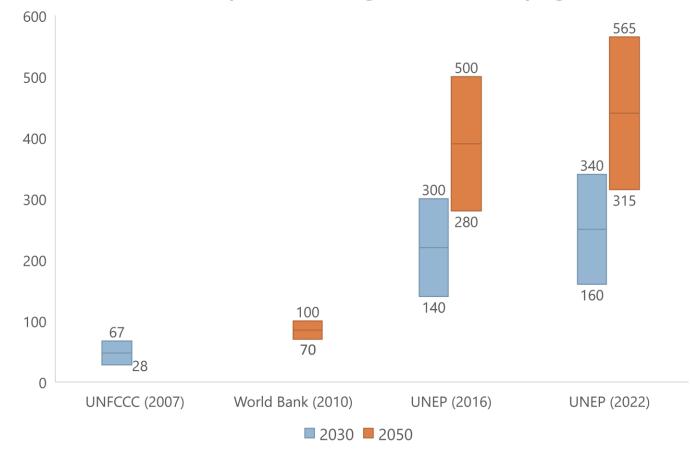


Despite collective resource mobilization globally, the funding gap of **adaptation** is already large and widening rapidly

Global Climate Finance Flows



Assessment of adaptation funding needs in developing countries



Source: Climate Policy Initiative, 2021





Greece is in the middle in the vulnerability index compared to the other EU27 member states. The Greek economy is less ready to convert investments into adaptation actions





Source: University of Notre Dame's 2019 Climate Change Adaptation Index

Vulnerability index: ability of the economy to adapt to the negative consequences of climate change Readiness index: readiness of the economy and society to use investments in adaptation actions



Adaptation in Greece is financed almost exclusively from public funds (European and national)

The implementation of adaptation policies can reduce the cumulative losses in the Greek economy by €123 billion by 2100 (Bank of Greece, 2011)



European Recovery and Resilience Fund

- Finances adaptation projects (indicatively: reforestation, flood protection, improving infrastructure resilience, etc.).
- In 2022, more than €1.8 billion were announced for corresponding projects (mainly for the primary sector)



NSRF (2014-2020, 2021-2027)

- €3.6 billion in total for Environment and Energy
- Adaptation to Climate Change is one of the 6 strategic priorities
- Adaptation actions in regional and business programs of the NSRF. Total EU resources: €1.1 billion.



LIFE AdaptInGR strategic plan

- European co-financing: €8.3 million (total budget: €14.2 million)
- Duration: 01/2019-12/2026
- Support for investment mobilization through the RRF and the new NSRF 2021-2027
- The LIFE program has allocated approximately €500 million for adaptation and mitigation projects for the 2021-2027 period, to all Member States



Other sources

- National Growth Plan (NGP) EPA special objective: green development, ~3 billion for risk prevention and management and development of protective infrastructure
- €55m loan to the Municipality of Athens from the EIB to support the implementation of the resilience strategy



Policy recommendations

Reduction of uncertainty about climate change

Acceleration of the implementation of the national adaptation strategy

Separate Fund for Adaptation

Mobilization of private resources for adaptation

Insurance as a means of recovery









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