



ΙΔΡΥΜΑ ΟΙΚΟΝΟΜΙΚΩΝ & ΒΙΟΜΗΧΑΝΙΚΩΝ ΕΡΕΥΝΩΝ

Overview of the report



Prospects for consolidating positive dynamics amid challenges

Important positive factors

- Accumulated human and capital potential
- Recovery and Resilience Fund
- Public debt at a fixed interest rate

The external environment puts pressure on exports and investments

- Rising interest rates and activity slowdown
- Expectations uncertainty and market volatility

Concern about trade balance and inflation

- Low competitiveness
- High core inflation
- Low intensity of competition

Recovery of the investment grade rating is critical

- Broadening of the investment base
- Liquidity in bond market and banks

Effective fiscal policy

- Stability of the balance is critical
- Positive developments on the tax side
- Subsidy policy and effects

Uncertainty in Europe

- Energy crisis, inflation, Russian invasion
- Road to fiscal integration?



Global environment: slowdown in Q3/2022

- Global growth slowed down in the third quarter, under the influence of energy costs and monetary tightening.
 - 2,3% growth in the Eurozone (down from 4,1%), 1,9% in the US (up from 1,7%), 2,5% (down from 3,3%) in OECD countries.
 - \succ The 3.9% acceleration in China is an exception (up from 0,4%).
- Inflation in OECD countries fell marginally to 10.3% in November, down from a 39-year high recorded in October (10.7%)
 - > The international prices of energy goods are gradually falling.
 - Central banks are systematically increasing interest rates; the ECB has made 4 consecutive increases in the second half of 2022, accumulating to 250 bp.
 - > The war in Ukraine is still raging on and its duration remains uncertain.
- The OECD forecasts **global growth** of 2.2% in 2023, down from 3.1% in 2022.
- The ECB forecasts marginal growth in the Eurozone in 2023 (+0.5%) and acceleration in 2024 (+1.9%). Inflationary pressure is expected to remain strong in 2023.



Global environment: challenges in the medium term

Global challenges

- Uncertainty regarding the intensity and duration of the impact of the war in Ukraine on energy sufficiency, price level
- 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 → interest rate hikes at a slower pace going forward
- Outbreak of the pandemic in China due to the relaxation of the zero-COVID policy

European challenges

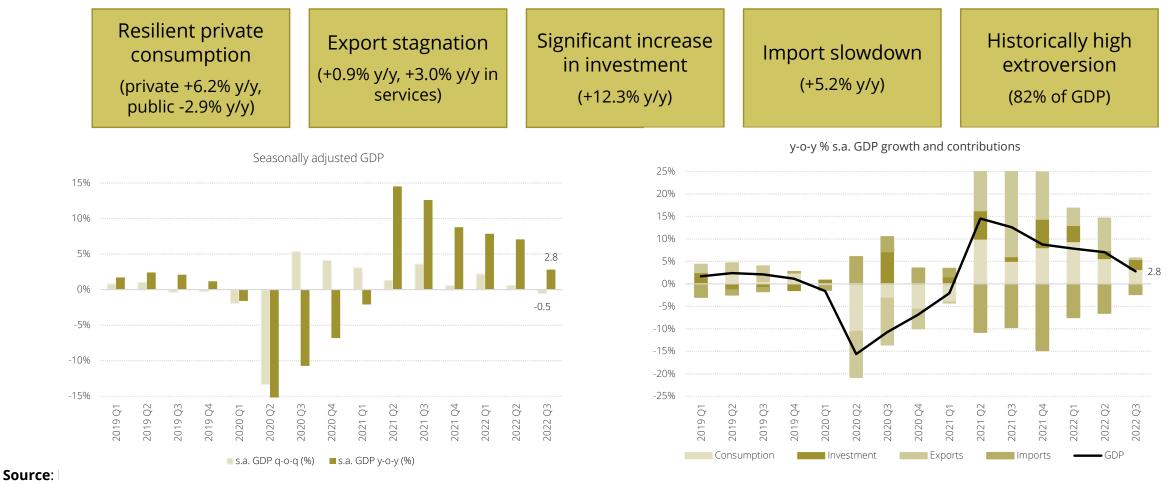
- Diversification of energy sources and energy security in the medium term
- Public consultation on the revision of fiscal rules
- Effects of ECB monetary policy tightening and rising borrowing costs
- Effective utilization of the European Recovery Fund



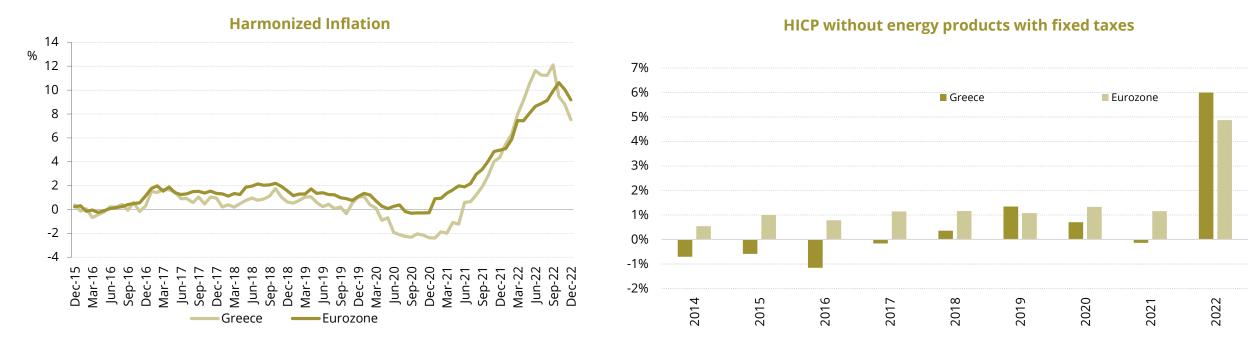
Greece Q3/2022: Domestic recovery lower than expected

<u>Real GDP Q3/2022</u>: +2.8% y/y

Significant slowdown, (from +7.1% y/y in Q2), effect of higher starting point



Inflation reached 9.6% in 2022, a 28-year high, mainly due to energy prices



Sources: ELSTAT, Eurostat

Eurozone: 25-year high level of inflation in the first eleven months of 2022, 8.4%, up from 2.6% a year ago.

Greece: Domestic Price Index growth slows to 7.2% in December, down from 8.5% in November.

- > <u>2022 (whole year):</u> +9.3% HICP rate of change, up from 0.6% in 2021.
- Jan.-Nov. period: +9.4% HICP rate of change, up from 0.2% in the corresponding period of 2021, due to the increasing effect of energy goods (3.4%) and other goods (6.2%). Marginally negative effect from indirect taxes (-0.1%).

Producer Price Index (Jan. – Nov. 2022): Strong 37% rise, mainly due to the rise in energy goods prices, up from a 12.3% rise a year ago.



Inflationary pressures in 2022, by GDP component: very high export deflator

Deflator indices by expenditure component of GDP

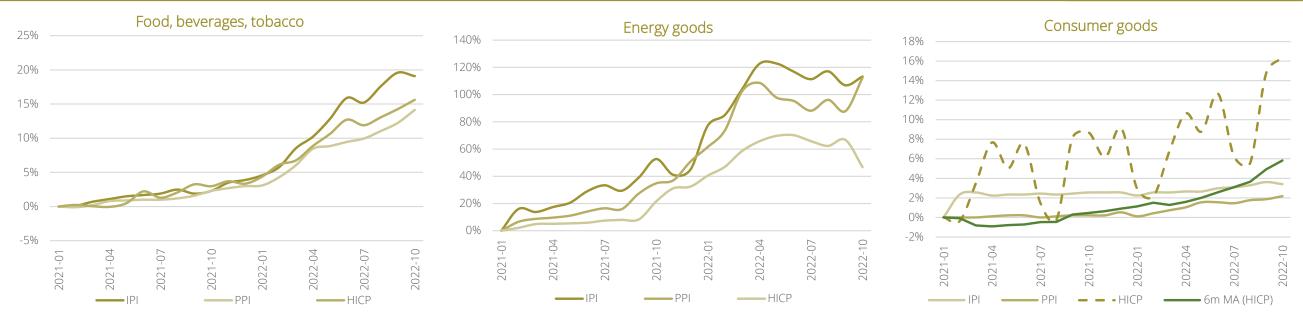
(% y-o-y) (% annual change) 40% 30% 35% 25% 30% 20% 25% 20% 15% 15% 10% 10% 5% 5% 0% 0% -5% -5% Q2 ő Q2 9 ő õ Ô -10% 2021 2022 2022 2021 2021 2022 202 2021 Q1 2021 Q2 2021 Q3 2021 Q4 2022 Q1 2022 Q2 2022 Q3 Trade, tourism, food Construction GVA Source: ELSTAT Consumption ------- Fixed Capital Investments Imports Exports Industry Primary sector Other services

Deflator indices by sector of production of the GDP

- Escalation of "imported" inflation, with the deflator indices of imports and exports exceeding the corresponding indices of consumption and fixed capital investment, but also the corresponding indices of the Eurozone average.
- A steady gap is also observed between the deflator indices of imports and exports, with price pressure consistently greater in the latter, one of the key components of domestic growth.
- > On the production side, the **industrial sector** appears to be the biggest contributor to inflationary pressure from late 2021.
- A significant contribution is also recorded by the primary sector and the trade, tourism, and food services, which comprise a large share of the domestic production process.



The increase in consumer prices (HICP) is a lot milder than that of import prices (IPI) and producer prices (PPI) in food, beverages, tobacco, and energy products



Source: Eurostat, **Note**: The cumulative change of the indicators from 1/1/2021 is presented.

- Food, beverages, tobacco: Cumulative increase of the IPI by 19.1% in the Jan. 2021 Oct. 2022 period, with the HICP and the CPI following closely behind (15.6% and 14.1% increases, respectively). Positive correlation, with a 2-3 month-lag, between the IPI and the HICP. The impact on consumer prices is partially offset by the milder increase in the prices of domestically produced goods.
- Energy goods: Strong upward trend for the IPI and the CPI- 113.4% and 112.5%, respectively- in the period under review. Smaller increase for the HICP (46.6%). Domestic policies to address energy costs are partially halting the large increase in consumer prices.
- Consumer goods: 3.4% cumulative IPI growth rate, and 2.2% cumulative CPI growth rate. The HICP is trending around higher levels (5.8%) and is experiencing large fluctuations with a 6-month periodicity. Energy costs indirectly affect production costs, exerting inflationary pressures on consumer prices; stronger than those on the CPI and the IPI.



Public finances: close to the 2022 target, pressure to achieve a primary surplus in 2023

Jan.-Nov. 2022 State Budget Balance

- €5,6 billion deficit (€6,8 billion target)
- €1,1 billion primary deficit (€2,2 billion target)

Improvement compared to last year due to higher revenue (+10,2%)

Target exceeded mainly due to lower expenditure (-€823 million) but also due to higher revenue (+€288 million)

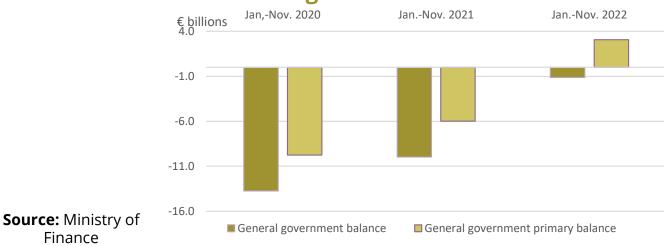
- Increase in most revenue categories compared to last year
- Expenditure: Postponement of armament program payments

General Government Balance & Debt (% of GDP)

	2021	2022 (est.)	2023 (target)
Fiscal balance	-7.5%	-4.1%	-2.0%
Primary Balance	-5.0%	-1.6%	+0.7%
Debt	194.5%	168.9%	159.3%

2023 State Budget (target)

- €7,8 billion deficit or -3,5% of GDP
- €0,8 billion primary deficit or -0,4% of GDP



2023: election year, first year after 2010 that Greece will not be under tight fiscal surveillance, as well as a year in which investment grade recovery is expected. Prudent fiscal management is therefore critical for the coming years.

Finance



General government cash balance

Mixed trends in short-term activity indicators, slowdown in manufacturing and retail trade

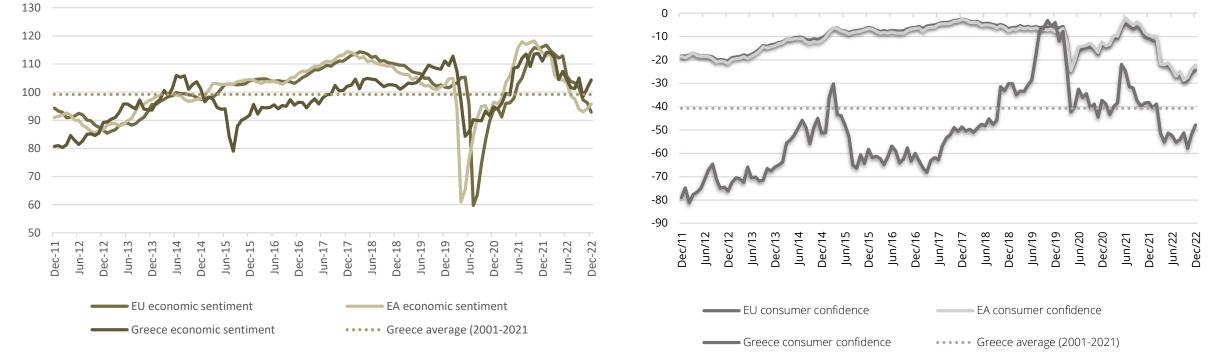
Industry	 Industrial production increased by 2.6% in the first eleven months of 2022 (1.0% in the EA), down from a 10.2% increase in the corresponding period in 2021 Signs of slowdown and trend reversal in the fourth quarter
Construction	 Construction output rose by 20.8% in the first nine months of 2022, up from 6.1% in the corresponding period in 2021 13.4% increase in the number of Construction Projects, up from 13.0% in 2021
Tourism	 Tourism reached a decade high level in the third quarter of 2022 (+33.5% compared to the, already very good, third quarter of 2021). 62.3% YoY growth in the first nine months of 2022
Retail	 3.9% growth in Retail Trade volume in the first ten months of 2022, up from 2.5% in 2021. Trend reversal in October and deterioration of expectations in 2022.



Economic Sentiment slightly declined in the fourth quarter of 2022, significantly lower than last year

Economic Sentiment Indicator



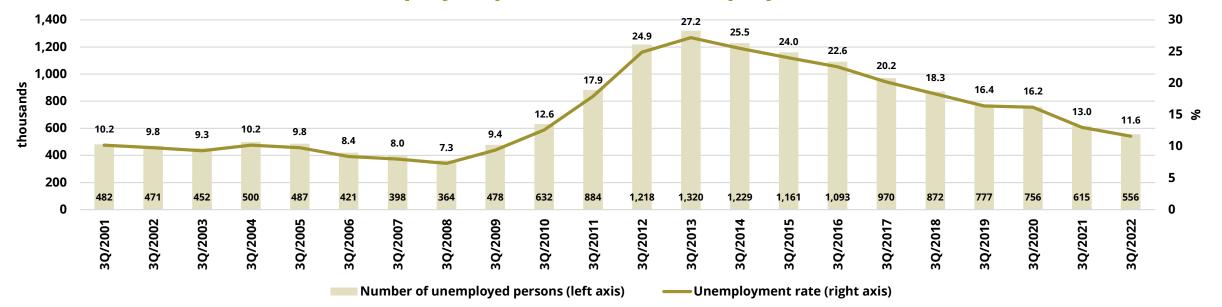


Sources: IOBE, European Commission

Marginal improvement in Consumer Confidence at the end of 2022; significantly lower levels compared to the Eurozone.



Milder decrease in the unemployment rate in the third quarter of 2022



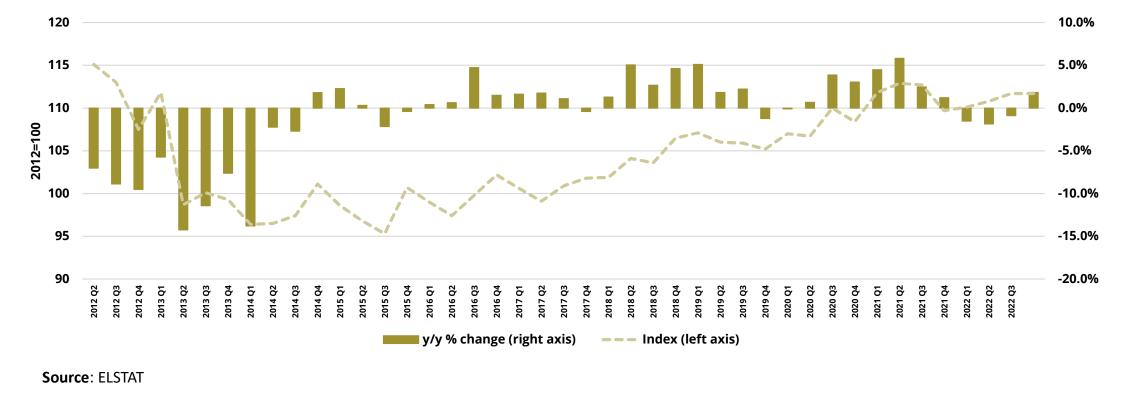
Number of unemployed persons and unemployment rate in Greece

- > The unemployment rate reached 11.6% in the third quarter of 2022, down from 13.0% in the third quarter of 2021 and 16.2% in the third quarter of 2020.
- Employment increased in 15 industries. Indicatively: Education (+36.6 thousand), Primary sector (+20.3 thousand), Water supply-Sewage treatment (+16.9 thousand).
- > Employment declined in 5 sectors. Indicatively: Public administration (-15.5 thousand), Transport-Storage (-10.0 thousand).
- The hiring-departure balance in the eleventh month of 2022 (+64.0 thousand) is positive, but lower compared to the positive balance of the eleventh months of 2021 (+135.7 thousand).
- > The employment inflow-outflow balance was positive in November 2022 (+64.0 thousand), but lower compared to last November (+135.7 thousand).



Gradual increase in wage costs

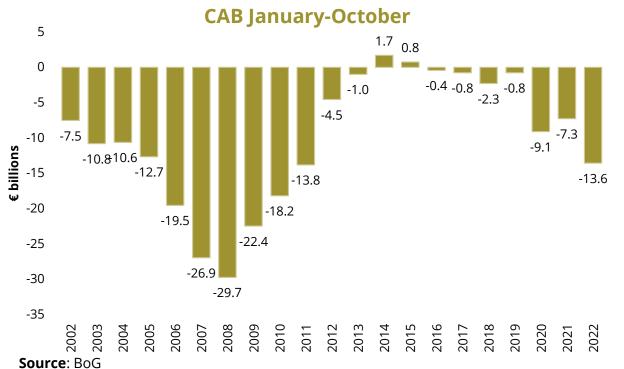
Seasonally adjusted wage cost index

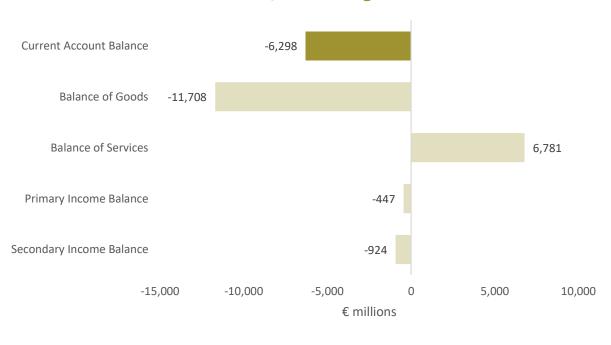


In Q3/2022 the index increased by 1.8%, on an annual basis, following a 1.2% in Q3/2021



The current account deficit reached €13.6 billion in the Jan.-Oct. 2022 period...





2022/2021 change

...increased significantly compared to previous years, reaching 9.3% of GDP on a rolling 12-month basis.

- Nearly double increase in imports compared to exports of goods, \succ
- 50% of the increased flows in the value of goods concern fuel. \geq
- Historically high level of transport revenue (€19.5 billion). \geq
- Significant increase in tourism revenue (+€7.0 billion), reaching 97% of 2019 level.



Non-performing loans (NPLs) decreased in the third quarter to a single-digit percentage of the banks' total loans...



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

...for the first time since December 2009, however they remain a significant burden on the economy, while their rate of decline is slowing or even stopped (mortgage credit).

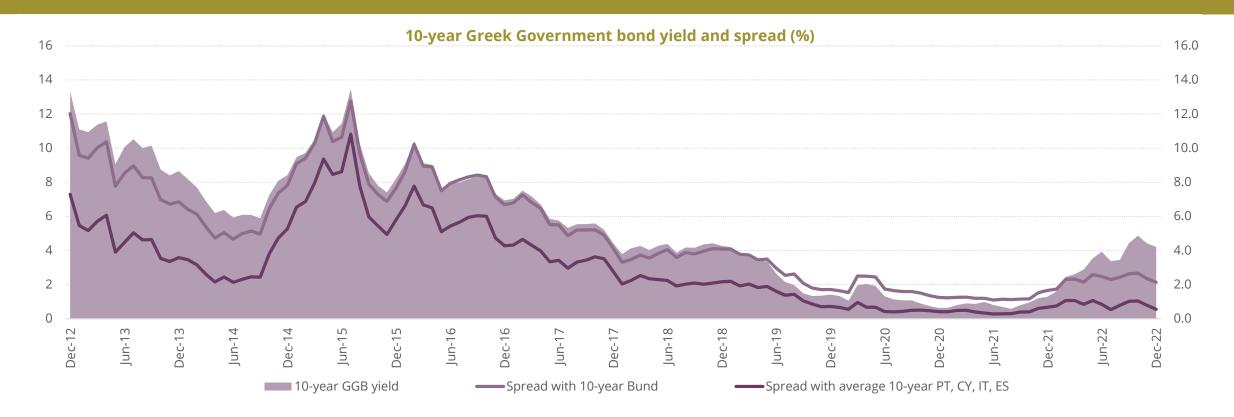
Positive developments: Enhancement of credit expansion to businesses, acceleration in the utilization of the loan arm of "Greece 2.0"

Negative developments: The upward trend in private deposits has been halted, increased borrowing costs, risk of a new round of arrears due to the energy crisis, shrinking credit to households

Priorities: Continuation of the improvement of asset and equity quality, effective implementation of the bankruptcy code



The cost of new government borrowing slightly fell in December, after reaching 5-year highs in October...



Source: ECB

...to 4.2% for the 10-year bond, while the spread in relation to the corresponding German one stabilized slightly above 200 basis points.



2023 macroeconomic forecasts

Baseline scenario 2023

- The Eurozone economy will follow the ECB's baseline scenario of 0.5% growth and 6.3% inflation.
- The health crisis will not cause a significant disruption to economic activity.
- Geopolitical instability in Eastern Europe and the Mediterranean continues at a similar intensity as that of 2022.
- Recovery of investment grade rating in the second half of 2023 by at least one rating agency.
- Small delay (1-2 months) in the implementation of the "Greece 2.0" Plan.
- Slightly higher public spending compared to the 2023 Budget prediction.
- Inbound tourism will perform as well as it did in 2019.

Estimate for 2022

- Growth: ≈ 5.2%
- Private consumption: $\approx 7.7\%$
- Public consumption: \approx -1.1%
- Investment: ≈ 12.1%
- Exports: ≈ 5.8%
- Imports: ≈ 9.1%
- Unemployment: $\approx 12.3\%\%$
- Inflation: ≈ 9.6%

Forecast for 2023

- Growth: ≈ 1.4%
- Private consumption: ≈ 0.8%
- Public consumption: \approx -2.0%
- Investment: ≈ 8.5%
- Exports: ≈ 2.1%
- Imports: ≈ 2.7%
- Unemployment: ≈ 11.5%
- Inflation: ≈ 4.0%



Risks and positive prospects in 2023

Risks	 Adverse recession scenario in the Eurozone in 2023 Failure to achieve fiscal targets in a scenario of more unfavorable macroeconomic conditions and political instability Deterioration in the current account and macroeconomic instability Extended election period Continued geopolitical instability and risk of escalation Further increases in energy goods international prices at the end of 2023 Loss of competitiveness due to higher than the EA average core inflation Further delay in the implementation of "Greece 2.0" reforms New surge in arrears due to rising interest rates and cost of living
Positive prospects	 Increase in public revenue and decrease in public debt Systematic enhancement of extroversion Recovery of investment grade rating Acceleration of the implementation of the loan arm of the National Recovery and Resilience Plan and implementation of reforms Gradual reintegration of reperforming loans into the banking system Signs of resilience in the labor market Design of a new fiscal rules' framework in the EU



Special chapter*

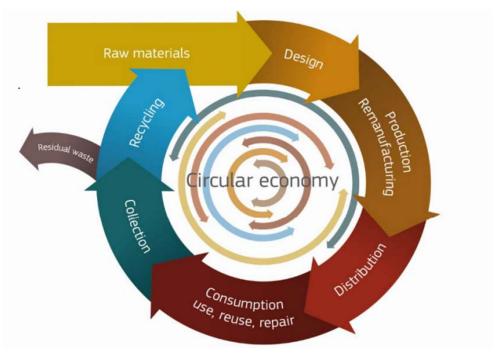
"Circular Economy: Opportunities and effects on the Greek economy"

* IOBE study (2022) conducted on behalf of diaNEOsis. Available here

Circular economy model – Minimizing the waste of natural resources at each stage of the products' life cycle

- **Design:** Facilitates product repair
- **Production:** Promotes the use of secondary materials, product remanufacturing and waste reduction
- **Distribution:** Limits the waste of energy resources
- Consumption: Promotes the reuse and repair of products
- At the **end of the life cycle**, it promotes their collection in a way that facilitates recycling and the creation of secondary materials for use in the production of new products

Circular Economy Model



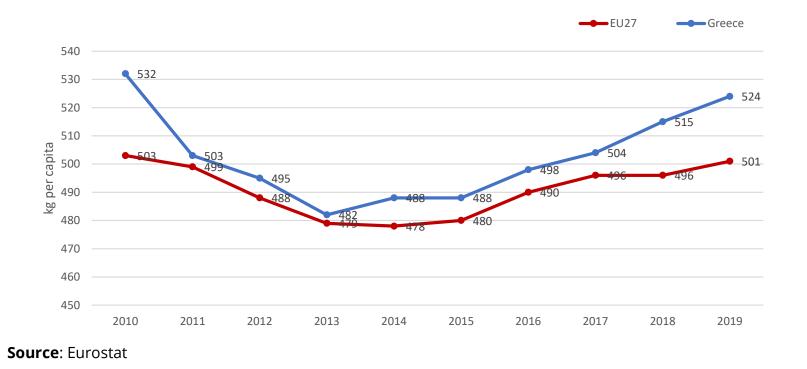
Source: European Commission (2014), <u>Towards a circular</u> <u>economy: A zero waste programme for Europe</u>, COM/2014/0398 final

The transition from a linear to a circular production model creates business and economic opportunities with significant social and environmental benefits, but also challenges for existing production and social structures



In Greece, the total consumption of material resources and domestic mining has been decreasing...

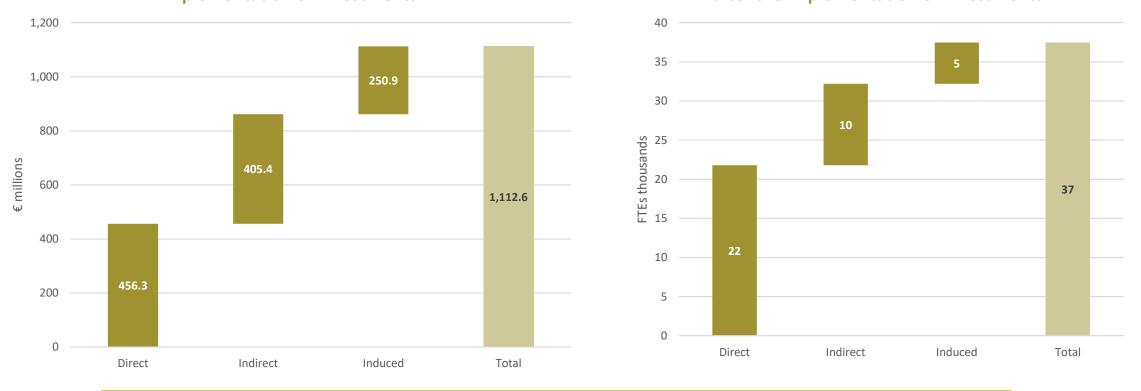
Municipal waste production per capita, Greece and EU-27



...however, municipal waste generation per capita remains higher than the EU-27 average. The largest percentage of municipal waste is still landfilled. The Greek economy is only in the 18th place in terms of cyclicality.



A \in 1.1 billion increase in GDP is expected from the implementation of investments for the development of the circular economy...



Impact on GDP over an eight-year period after the implementation of investments

Impact on employment over an eight-year period after the implementation of investments

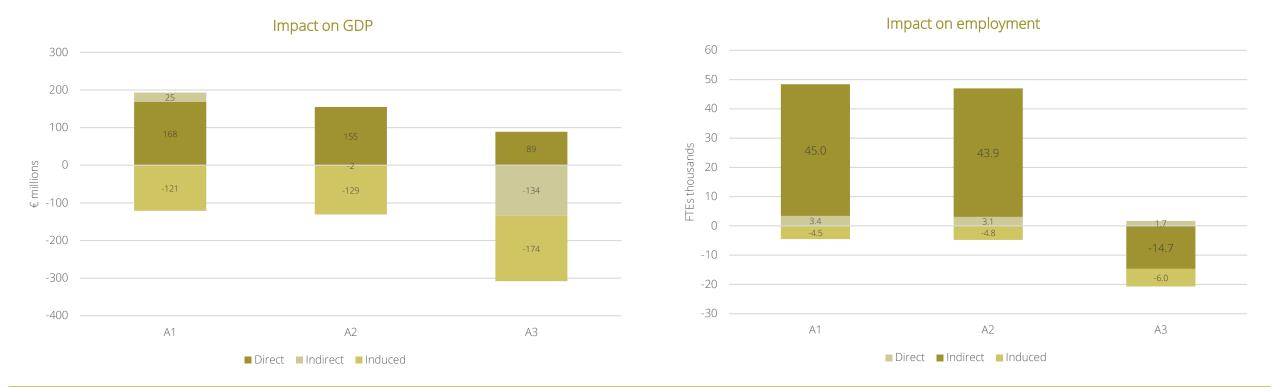
...and the creation of approximately 37 thousand jobs

Source: IOBE estimates (2022)



IOBE - FOUNDATION FOR ECONOMIC AND INDUSTRIAL RESEARCH

The impact may reach €70 million in GDP and 44 thousand new jobs by 2030 if the demand for secondary materials is met from the domestic market.



Losses of up to €220 million (GDP) and 19 thousand fewer jobs are predicted if demand is exclusively served through imports Total imports required to meet the demand of secondary raw materials by productive sectors also determine the economic impact of the transition to the circular economy.

Source: IOBE estimates (2022)

Note: The three scenarios presented, A1, A2, A3, differ in how the increased needs for recycled/recovered materials and repair services are met in each case. In A1, the additional demand is entirely met by the domestic market. In A3 it is met by imports.



Policy recommendations for the circular economy

Monitor the implementation of the circular economy strategy Create the necessary framework and indicators to monitor the circular economy and record waste quantities Enhance the operation of alternative management systems and accelerate the creation of new ones to collect and manage more waste

Use of financial tools to improve circularity

Necessary investments in waste management infrastructure and secondary materials production

(emphasis on screening and sorting – local government)

Enhance the use of secondary materials by the industry

The shift to sustainable consumption is necessary – the role of education is important

Accelerate the absorption of available financial resources (European, national)



Contact details



@IOBE_FEIR

www.iobe.gr



@iobe.foundation



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