

Quarterly Report on the Greek Economy

03/21

October 20, 2021



ΙΔΡΥΜΑ ΟΙΚΟΝΟΜΙΚΩΝ & ΒΙΟΜΗΧΑΝΙΚΩΝ ΕΡΕΥΝΩΝ

Overview of the report





The new normal of the pandemic and the conditions to transition from recovery to high growth

- The pandemic is still ongoing. The daily death count continues to be high and new virus outbreaks cannot be ruled out.
- The Greek economy has recovered strongly this year. An 8-8.5% real GDP increase is expected, following a 9% contraction last year. Both this year's recovery and last year's recession are among the biggest in the Eurozone.
- GDP is expected to grow by approximately 4% next year. However, in the event of a new outbreak of the virus, or if there are obstacles to the smooth financing of the economy, the growth rate will be lower, approximately 2.5%.
- In any case, as the initial "economy exiting the pandemic" dynamics becomes weaker, attention should be focused on the medium-term trends in the economy.
- Higher growth rates for the entire decade, above 3% on average, can only be achieved by increasing productivity and further attracting productive factors, a development that requires substantial market reforms and public sector reforms.
- Fiscal balance is crucial. Household and business support policies were a key factor in mitigating the recession last year, as well as boosting recovery this year. They need to be gradually reversed, however. The budget deficit next year needs to move towards zero and it should be followed by reasonable primary surpluses, around 1%, thereafter.



The new normal of the pandemic and the conditions to transition from recovery to high growth

- A reversal of deflation to systematic levels of inflation in Europe will not be a surprise. If inflation remains low, it can be a favorable condition for easier management of accumulated public and private debt.
- However, the supply lag relative to demand and the damage to global supply chains and energy markets, have led to rising costs for households and businesses.
- In this regard, measures to enhance the productive base by increasing investment and new production capacity, and actions to increase competition in the markets, can and must play a critical role in price formation domestically.
- Growth will be mitigated by the deteriorating trade balance, as the competitiveness deficit remains.
- The positive course of the economy can be affected by several external risks. An elongation of the pandemic (in unexpected ways), accelerating increases in energy prices and imported raw materials prices, and disruptions in markets that will increase the cost of financing the most vulnerable economies, such as Greece's.
- Another serious risk is that the current wave of recovery and liquidity may not lead to the creation of good foundations for high medium-term growth. This would not only have negative medium-term consequences but also an immediate adverse effect of reversing positive expectations.



International environment: High growth despite inflationary pressures

- Differences across countries in terms of de-escalation of **the COVID-19 pandemic** and the trend in economic activity
 - Good **recovery** in the second quarter, with several countries back to pre-pandemic levels.
 - OECD countries: The annual rate of change was 13.1%, up from -0.3% in the previous quarter. It made up for the deep recession in the second quarter of 2020 (-11.6%).
- **Asymmetric effects of mutations**, mainly in developing countries that have low vaccination rates and limited "fiscal space".
- Rapid recovery, disruptions in supply chains, and continued loose monetary policy are the main causes of the **rapid price increase** in energy goods and other commodities. The countries producing these commodities, however, are favoured...
- Interventions to **normalise the energy market** (utilisation of the strategic inventories of the US and China, OPEC+ continues its modest production expansion)



International environment: challenges in the medium term

Worldwide

- Restraint of inflationary pressures
 - Incentive for a mild monetary policy contraction. Possible increase in funding costs, issues of sustainability of private and public debt.
- Vaccination and medicine progress to deal with the pandemic, vaccine provision to poorer countries is an additional challenge
- Reduction of differences in speed and quality of recovery across countries

Europe

- Implementation of the European Recovery Fund as of the second quarter of 2021
- Achievement of a consensual Brexit by the EU
- IMF prediction: **global growth of 5.9% in 2021** (0.1pp lower than the July 2021 forecast) and 4.9% in 2022



Greece: Strong recovery in the second quarter of 2021; it resulted from the increase in private consumption and exports

GDP in the second quarter of 2021: +16.2%, versus -2.3% in the first quarter of 2021 and -13.9% in the second quarter of 2020. Slightly better recovery than the Eurozone average (+14.3%)

Significant changes in the components of GDP (second quarter):

- Large increase in household consumption (+13.2%) in the second quarter, following a reduction in the first quarter (-3.7%) and a large decrease a year ago (-14.6%)
 - Public consumption expenditure increased by 6.1% in the second quarter of 2021, down from an 8.1% increase in the previous quarter and a 1.4% reduction a year earlier.
- Exports increased by 22.6% (however, they had decreased by 27.6% in the second quarter of 2020)
 - Equally from an increase of exports of products (+17.1%) and an increase of exports of services (+28.8%)
 - Minor **deterioration of the external balance**, because of the larger increase in imports (+22.5%) compared to exports, mainly imports of products (+19.7%)
- Large increase of investment by +37.5%, mostly because of the large inventories expansion (+70%). Last year investment increased by 4.2%.
 - Fixed capital formation increased by 12.9%, up from a 3.6% increase a year ago



State Budget 2021: target achieved in the first eight months, due to extraordinary revenue

- **State Budget Balance from January-August 2021: €10.5 billion deficit, against a deficit target of €13.5 billion (included in the MTFSF)**
- **Primary balance: €6.4 billion deficit, against a deficit target of €9.4 billion.**
- The fiscal outcome was above the target, mainly because of increased revenue (+€2.45 billion compared to the target):
 - Transfers were 2.85 billion higher than the target, mostly because of the advance payment of the Recovery and Resilience Fund (+€2.3 billion)
 - €644 million revenue from ANFA's, which were not included in the state budget revenue forecast
- **Slightly lower expenditure (-€514 million compared to the target):**
 - Reduced Investment Programme expenditure (-€292 million), decreased transfers (-€137 million).
 - Despite the increased costs for the acquisition of assets (+€771 million for armament programs)



2022 Government Budget Draft

- **General Government Balance: €6.76 billion deficit (3.6% of GDP)**
- **General Government primary balance: €2.03 billion deficit (1.1% of GDP)**
- State Budget Deficit of 5.2% of GDP (€9.66 billion), up from 11.7% this year. Improvement mainly due to expenditure reduction:
 - Reduction of primary expenditure by €6.33 billion, by reducing transfers (-€7.88 billion).
- Net revenue increase (+€4.6 billion) from:
 - More receipts from taxes on goods and services (+€2.2 billion) and income taxes (+€1.93 billion).
- Smaller general government deficit from:
 - Surplus of legal entities (€1.93 billion) and surplus of Social Security Organisations (€1.04 billion).



Trends in short-run activity indices

Industry

- Production increased by 8.9% in January-August; up from a marginal increase (+0.9%) during the same period last year.
- Increase in the Eurozone by 11.2%, almost offsetting the losses of 2020 (-11.9%)

Construction

- Production increased in the first half of 2021 by 4.7%. In 2020 there was an 18.8% decline.
- Increase in Building works by 4.3%. Last year they decreased by 11.2%. Increase by 55.8% in area, 47.1% in volume

Tourism

- Turnover increased in the first half of 2021 by 9.7% compared to 2020

Retail trade

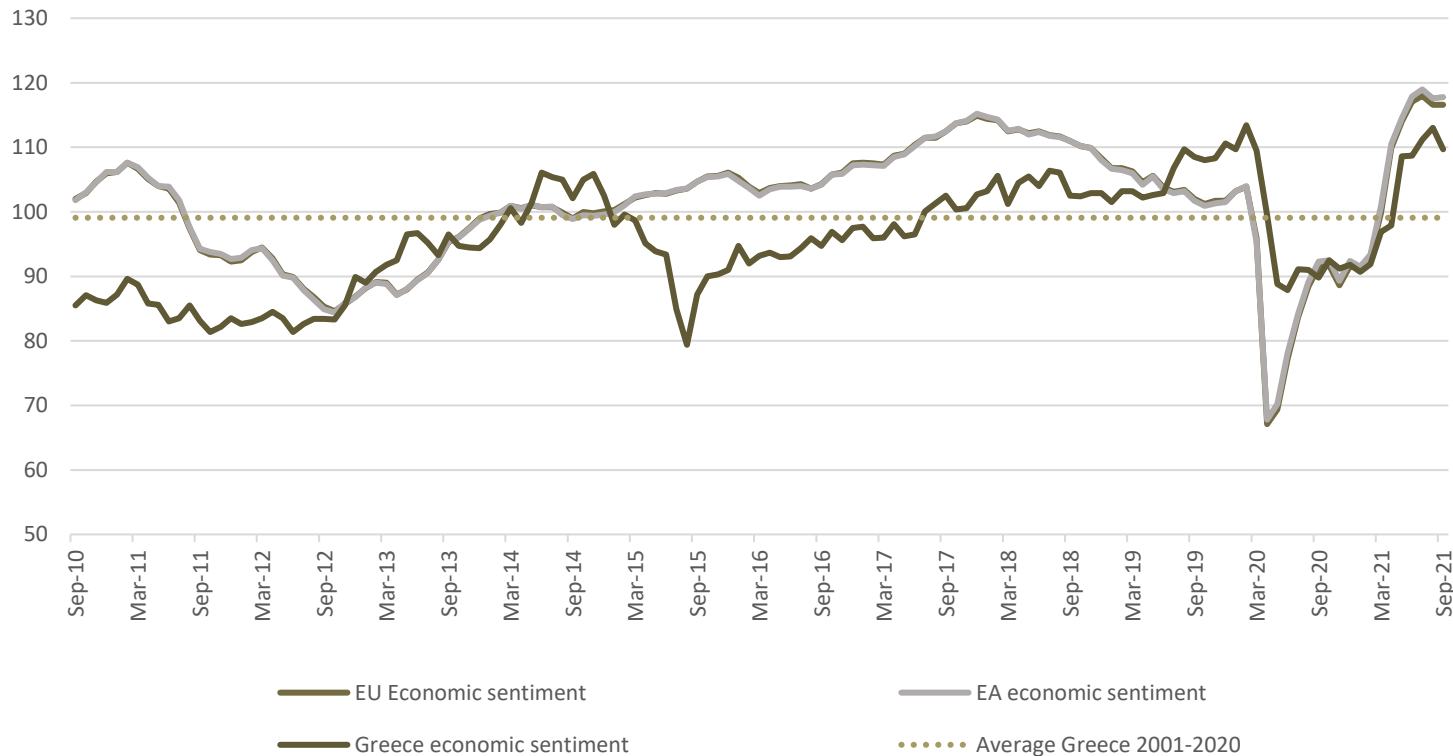
- 9.2% increase in activity volume in January-August 2021, compared to a 4.1% drop a year ago



Further improvement of Economic Climate in the third quarter; it reached pre-pandemic levels



Economic Sentiment Indicator

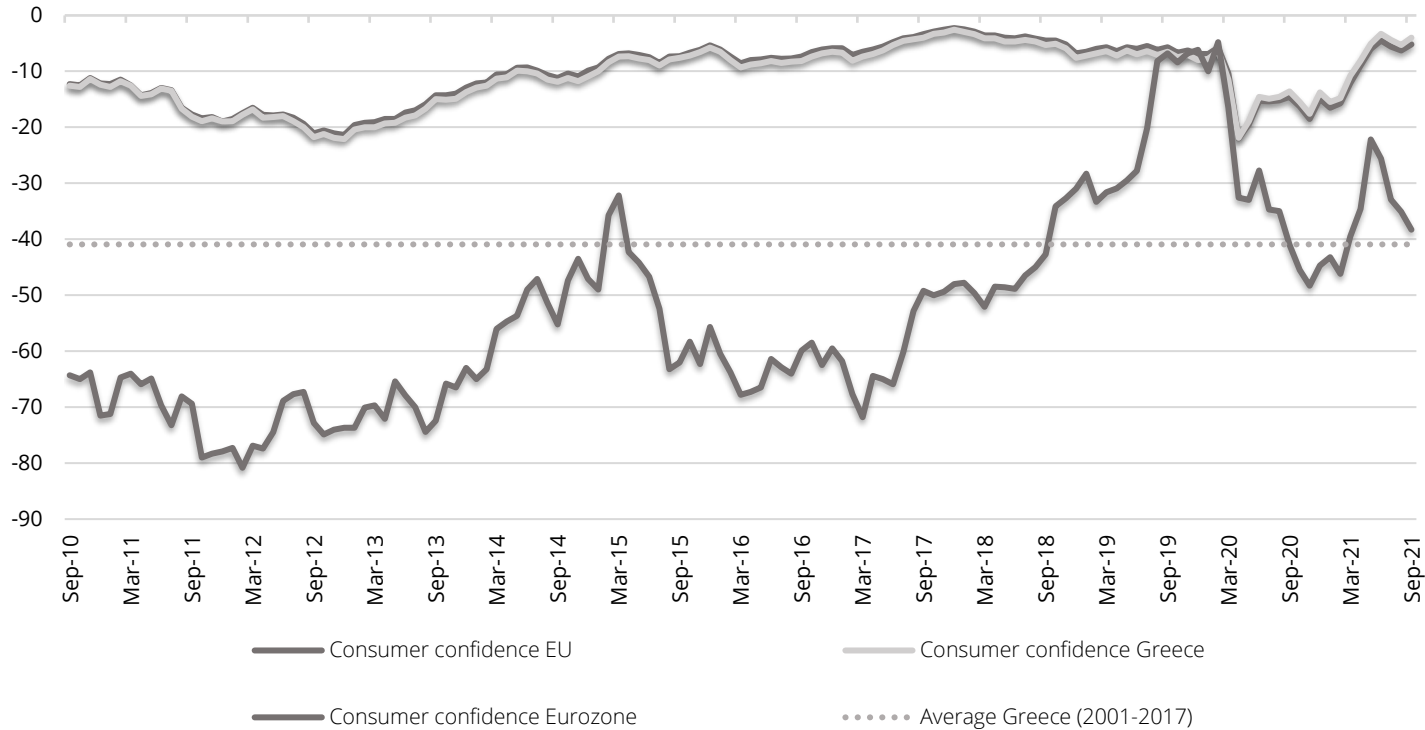


Sources: IOBE, European Commission



Consumer Confidence declined in the third quarter of 2021

Consumer Confidence Index

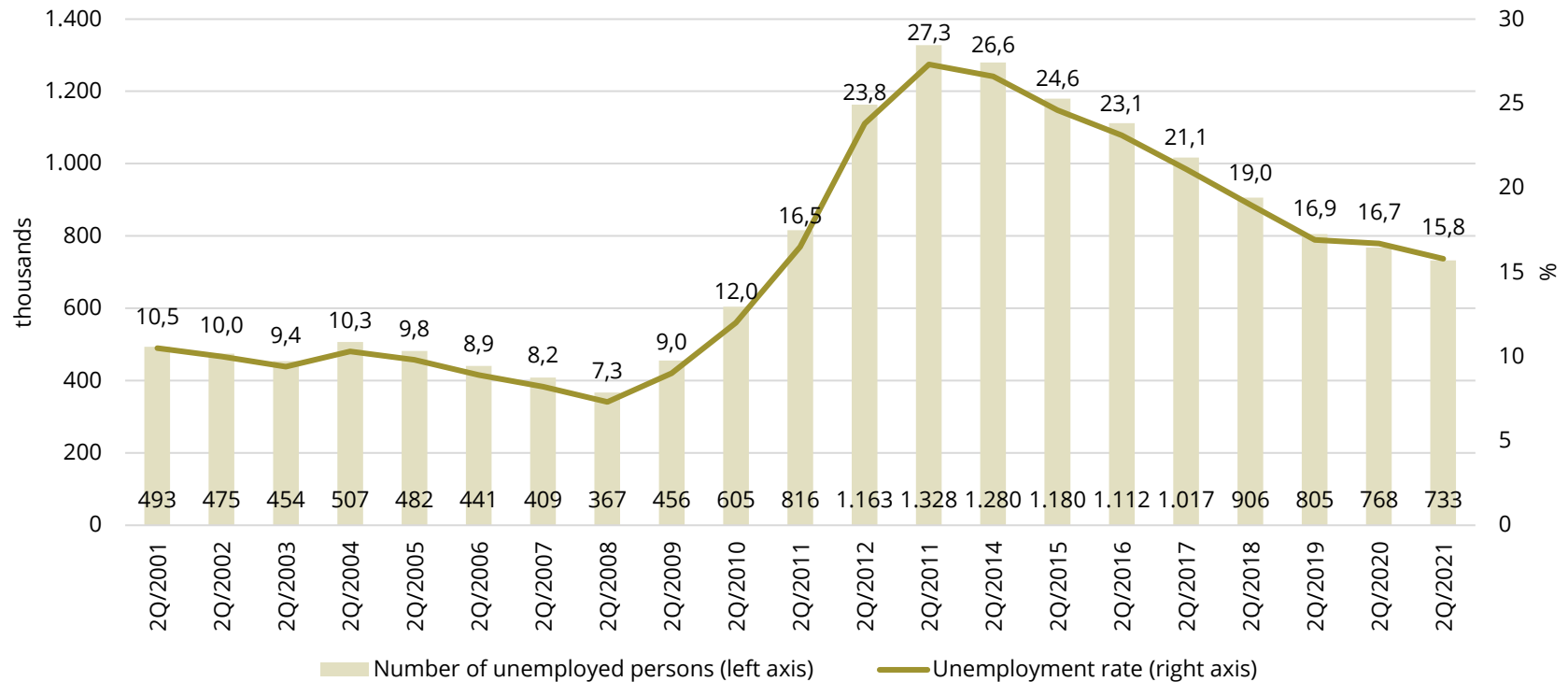


Sources: IOBE, European Commission



New significant reduction of unemployment in the second quarter of 2021

Number of unemployed persons and unemployment rate in Greece



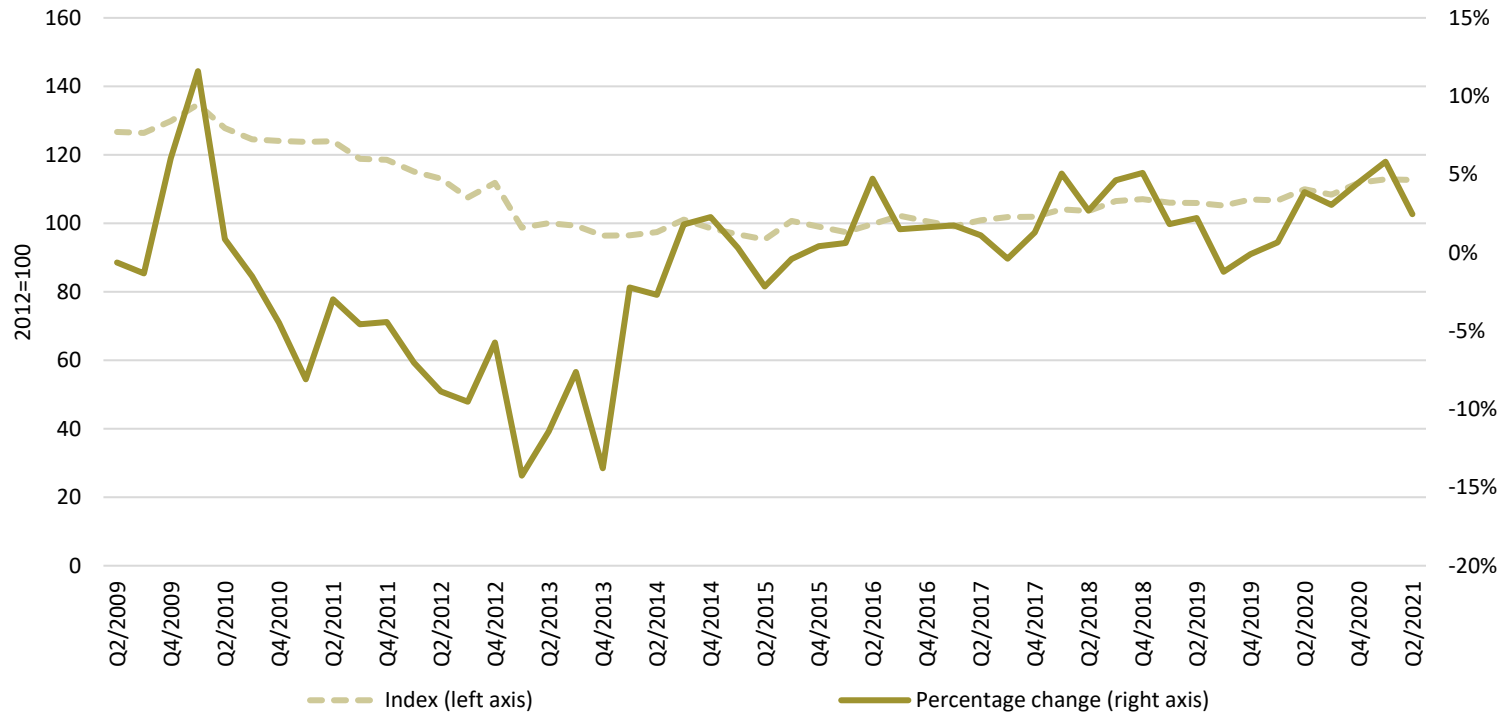
Source: ELSTAT

- The unemployment rate was 15.8% in the second quarter of 2021; it was 16.7% in the second quarter of 2020.
- Employment increased in 9 sectors. Indicatively: Public administration (+52.2 thousands), Human health-Social care (+25.1 thousands), Professional-Scientific-Technical activities (+23.7 thousands), Primary sector (+18.0 thousands).
- Employment decreased in 12 sectors. Indicatively: Education (-15.7 thousands), Water supply, sewage treatment (-11.1 thousands), Wholesale and retail trade (-4.5 thousands), Accommodation and catering services (-4.2 thousands).



Increase in the seasonally adjusted labor cost index for the sixth consecutive quarter

Evolution of seasonally adjusted labor cost index

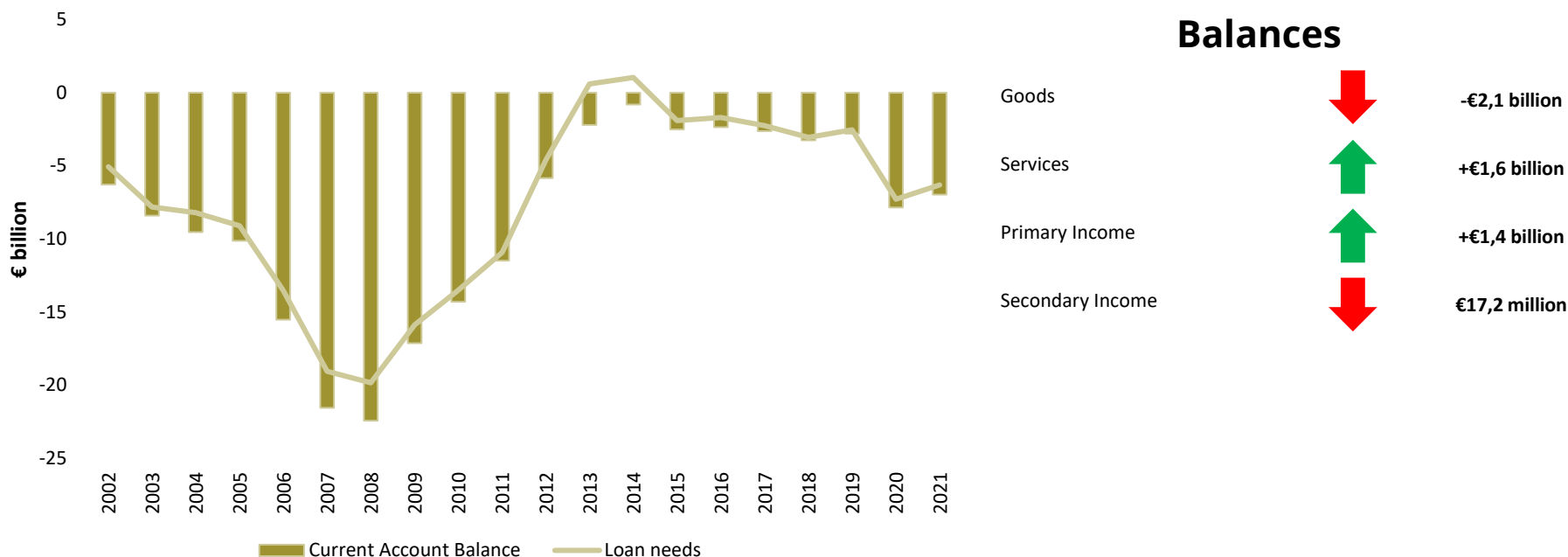


Source: ELSTAT

➤ 2.5% higher in the second quarter of 2021 compared to the second quarter of 2020



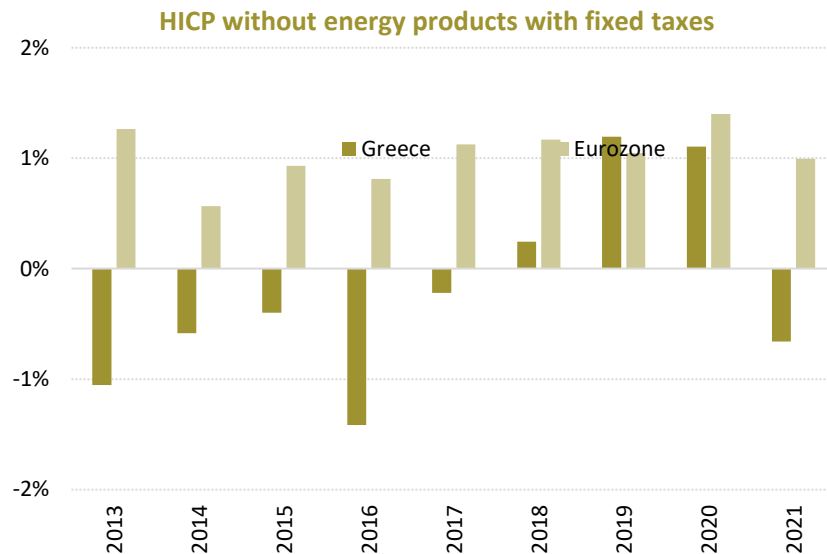
Reduction of the current account deficit in the first seven months of 2021 by €0.9 billion; it reached €7 billion.



Source: Bank of Greece

- The balance of services and the primary income balance improved, the balance of goods deteriorated
- Significant increase of exports of other goods (metals, food, electrical equipment) and imports (computer equipment, metals)
- Exports and imports of fuels increased because of the international rise in prices. The fuels balance was stabilised.
- Tourism revenue increased by 139.7% in the first seven months of 2021. It was 61.9% lower however, compared to 2019. Average expenditure per traveler increased by 23%.

Deflation in the first five months of 2021, due to indirect taxation



Sources: ELSTAT, Eurostat

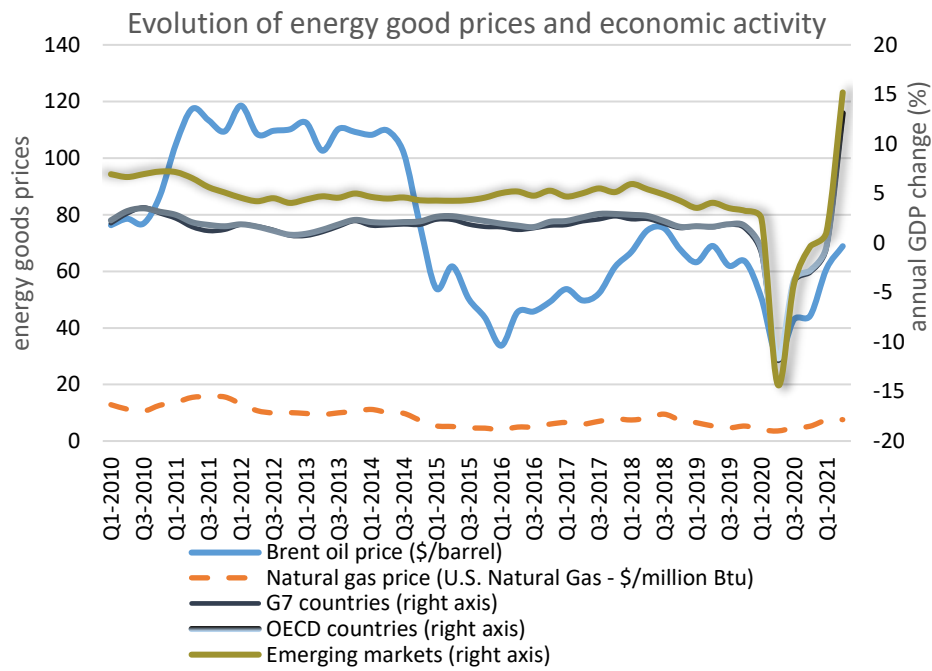
Eurozone: Inflation was higher during the first eight months of 2021 compared to the same period last year, 1.7% from 0.5% a year ago

Greece: The rate of change of prices was negative from January-September 2021, -0.5%, compared to -0.9% a year ago.

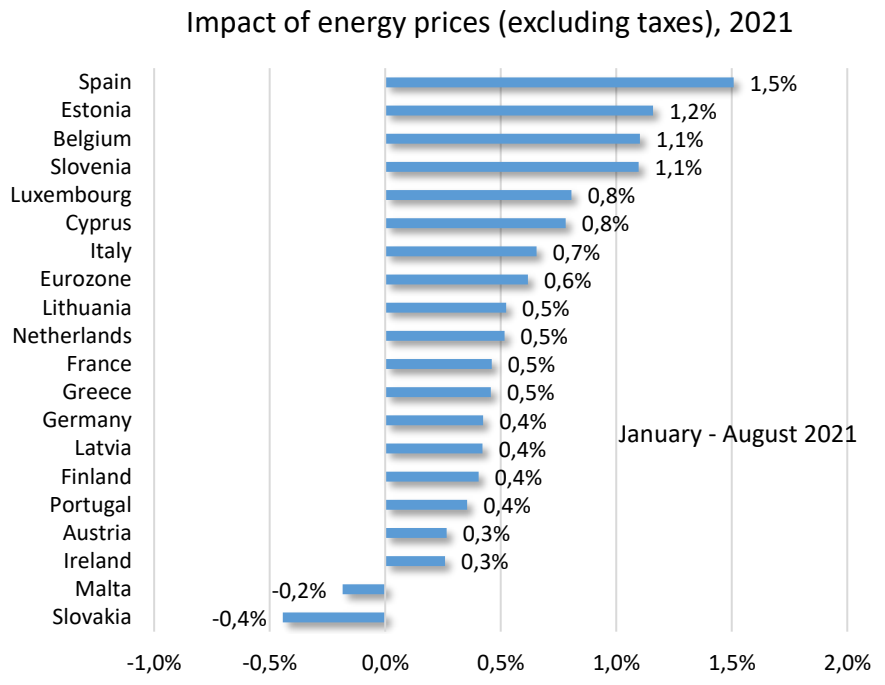
- In January-August, the impact of indirect taxes was negative (-0.6%). The effect of energy goods prices was positive (0.5%). The impact of domestic demand increased.

Producer Price Index (January – August 2021): 8.5% increase, compared to a 6.9% decrease a year ago. Mostly due to the increase in energy goods prices

Large increase in the prices of energy commodities in 2021, mainly due to high demand...



Source: U.S. Energy Information Administration, OECD



Source: Eurostat

...brought about by the recovery of the world economy. Increasing effect of conjunctural factors (reduction of gas reserves last winter in the EU, cessation of pumping of energy goods in the Gulf of Mexico, etc.). Gradual increase in production from OPEC+ until September 2022.

Brent oil: at \$67.87/barrel from January-September 2021 (+64.8% y-o-y). In September, at \$74.48/barrel (+82.1% y-o-y).

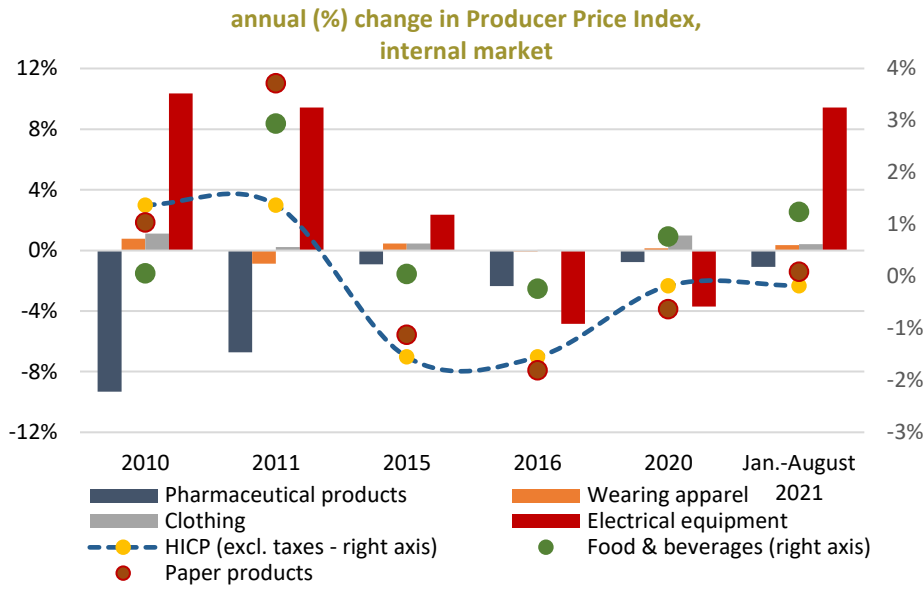
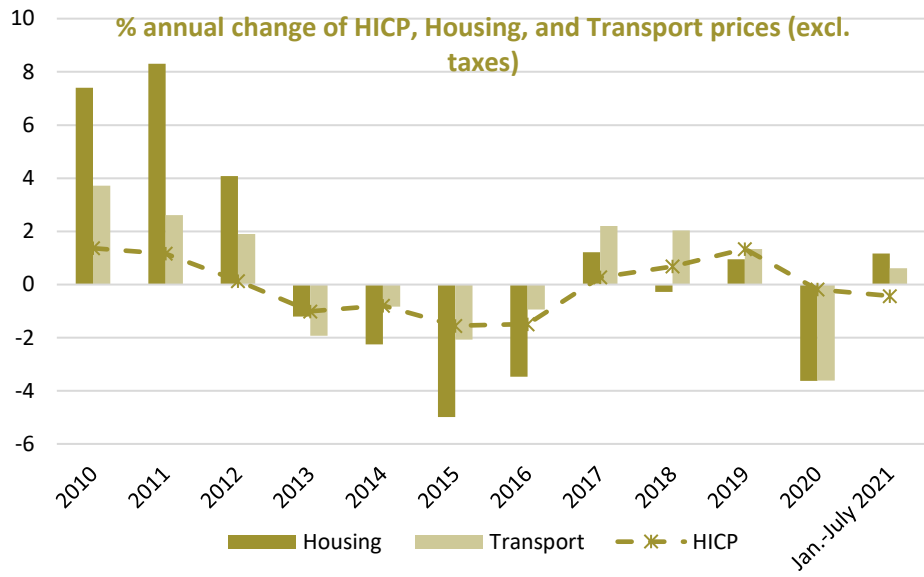
- Large fluctuations in the past: Large increase in 2010-2011, large decline in 2015-2016, large decline last year.

U.S. Natural Gas: at \$7.8/million Btu in January-July 2021 (+96.7% compared to a year ago). At \$9.35/million Btu, (+106% y-o-y) in July.

- Large fluctuations in the past: increase in 2011, large decline in 2015, large decline in 2020.
- Large fluctuations in energy commodity prices usually do not affect the trend in global economic activity (OECD GDP, G7, emerging economies), apart from 2020. In 2020, the most decisive factors were the lockdowns in the spring and autumn.
- The inflationary effect of the rise in energy commodity prices has been slightly smaller in Greece than in the Eurozone average (0.5 vs. 0.6 pp. of the index)



Effects of energy commodity prices on products and services



Sources: ELSTAT, Eurostat

- Changes in the prices of energy products mainly affect the cost of Housing and Transport
- In years with big changes in energy prices (2010-2011, 2015-2016), the HICP trend is the same as the Housing and Transport trend → Energy costs is the main determinant for HICP trends. 2020 is an exception; possibly because of special demand conditions due to the pandemic.
 - January-August 2021: Housing: +1.6%, Transport: +1.1%. No increase in prices in other categories of products and services (with fixed taxes). Marginal reduction (-0.2%) of prices of energy goods.
- Large fluctuations in producer costs of industries that produce consumer goods (Electrical Equipment, Food-Beverages, Paper Products) in the years that energy commodity prices moved in the same direction
 - There is no correlation between energy costs and production costs in Wearing apparel, Furniture, and Pharmaceutical products
- Properly designed measures can not only support households but also industries that produce basic consumer goods to mitigate the effects of the current rapid rise in energy commodity prices



The pandemic intensity remains high, creating investment and price challenges

Domestically and internationally: the intensity of the pandemic has not diminished while vaccination rates are declining

- Not reinstating restrictive measures has now become possible. The risk of new mutations, however, remains.
- Most support interventions have been completed. Now, the main target should be transition to a new equilibrium for businesses.

Rise of international tourism in the third quarter, extension of tourist season

- Expenditure per traveler also increased → revenue exceeded the estimates
- Employment boost, investment omen for the new year

Resurgence of private consumption

- Accumulation of deposits during lockdowns is gradually reversed
- Restraining effect of rising oil and commodity prices.

Implementation of the European Recovery Fund begins

- The rapid utilisation of such a volume of funds, in combination with the NSRF 2021-2027, the RRF 2021-2025, and more, is an unprecedented challenge.

Banks can play a key role in co-financing the Recovery Plan...

Positive developments

- Large reduction of NPLs through securitisations
- Favorable conditions for bank financing
- Systematic increase of private deposits
- Low cost of new borrowing

Challenges

- Poor profitability, quality of assets, and equity
- Credit shrinkage to households, slowdown in credit expansion to businesses
- Systematically higher borrowing costs than the rest of Europe

Priorities

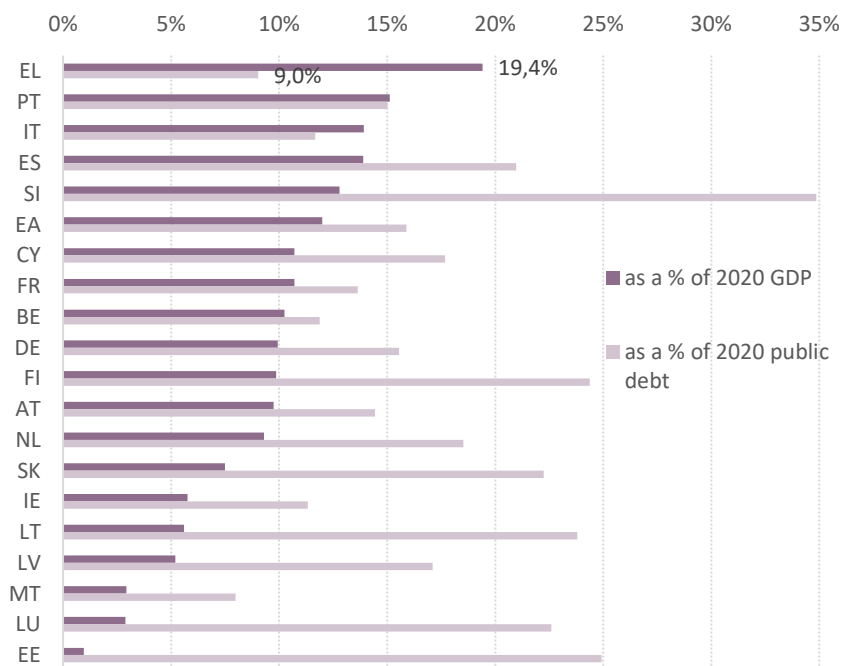
- Timely utilization of resources of the Recovery Fund to co-finance investment
- Reduction of NPLs, both with the "Hercules 2" program, and organically, in order to strengthen the lending capacity of banks

...with a loan arm for Greece, amounting to €12.7 billion from 2021-2026, which is expected to leverage a corresponding amount of private resources for productive investment

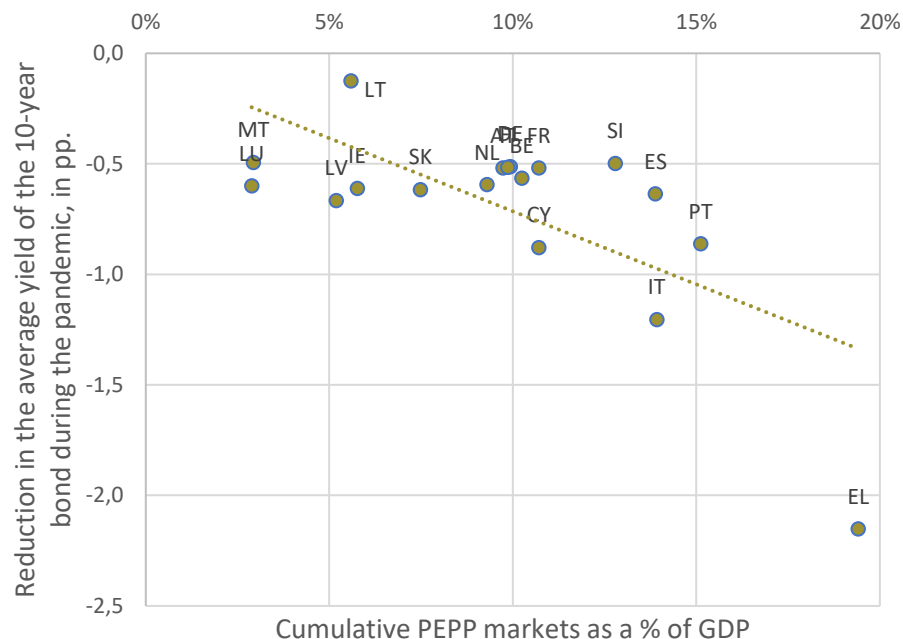


During the 18 months of the pandemic, the ECB bought more Greek government bonds through the emergency PEPP program than any other country (as a % of GDP)

Cumulative Purchases of Greek Government Bonds from the PEPP Program, March 2020 - September 2021



Correlation of PEPP program size with change in government bond yield, by country



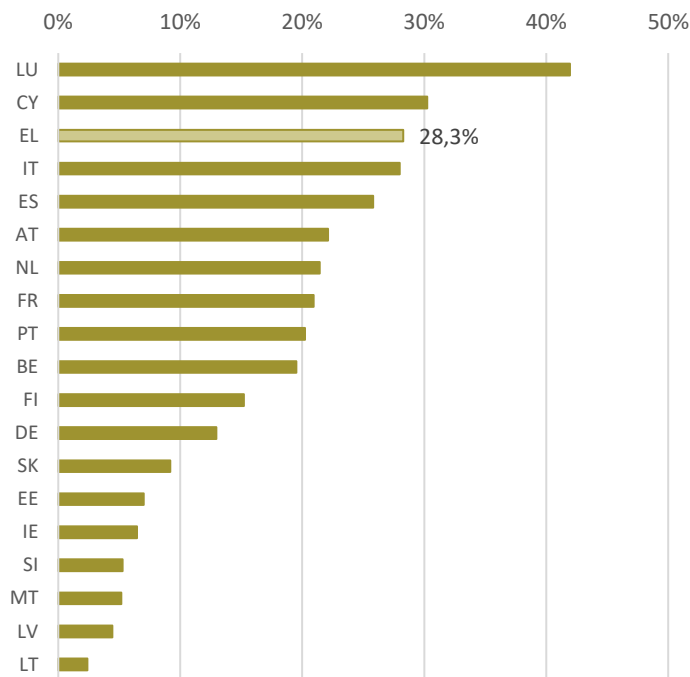
Sources: ECB, Eurostat. **Note:** The average change in the yield of government bonds is computed as the difference of the average rate from March 2020 – September 2021 (18 months) minus the average rate from January 2018 - December 2019 (24 months)

Countries with a proportionally larger PEPP program recorded a larger decline (compared to pre-pandemic levels) in their government bond yields.

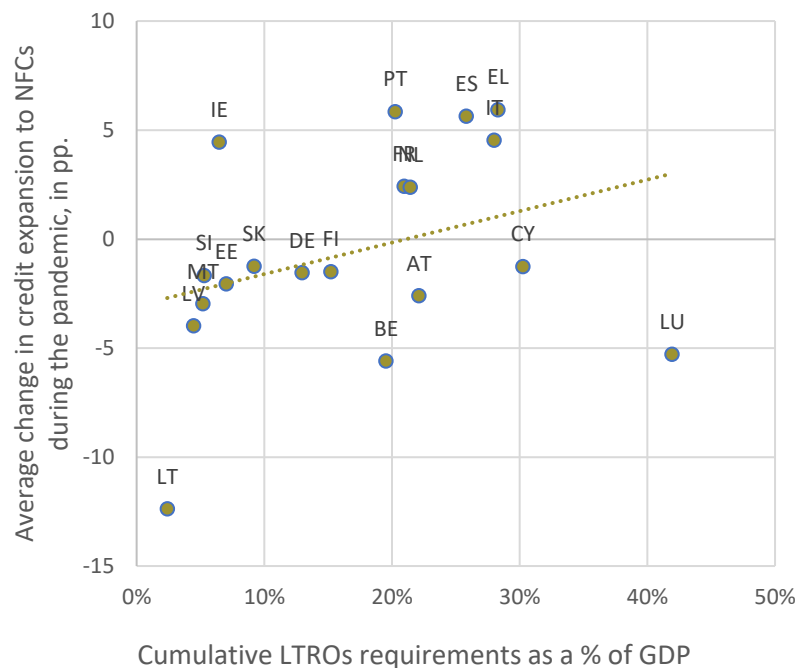


Financing of Greek banks by the Eurosystem through longer-term refinancing operations (LTROs)...

Total value of LTROs transactions per country as a % of 2020's GDP, August 2021



Correlation of LTROs size with change in credit expansion, by country



Sources: ECB, Eurostat. **Note:** The average change in credit expansion is computed as the difference of the average rate from March 2020 - September 2021 (18 months) minus the average rate from January 2018 – December 2019 (24 months)

...was the third highest in the Eurozone, as a percentage of (2020's) GDP.

Countries that require proportionally more LTROs have recorded, on average, a larger increase in the rate of credit expansion amid the pandemic



Macroeconomic forecasting process

2021 Scenario:

- A new large outbreak of the pandemic is not expected. Smaller, temporary outbreaks may occur locally.
- Further rise of international tourism, after its significant increase in the middle of the third quarter: revenue is expected to be slightly higher than 50% of the 2019 level
- More transfers due to the pandemic and to inflationary pressures compared to the budget target
- Recovery Fund resources: within target of the 2021 Budget (€5.5 billion) and faster start of implementation
- Faster recovery of the Eurozone: $\approx 5.0\%$ versus 4.3%

Basic 2022 Scenario:

- No new large outbreak of the pandemic is expected. Smaller, temporary outbreaks may occur locally.
- Further rise of international tourism, partly a result of the expansion of the tourist season: revenue at 80-85% of its 2019 level (+€5.9 to +€6.8 billion from 2021)
- Recovery Fund resources: within target of the Preliminary Draft of the 2022 State Budget (grants=€3.2 billion, loans=€2.0 billion)
- Eurozone recovery consistent with current forecasts ($\approx 4.3\%$), perhaps even higher

Alternative 2022 scenario:

- New outbreaks of the pandemic are expected; however, milder than they were in the past. Looser protection measures, no lockdown.
- Tourism: suspension of activity is not expected. However, a smaller increase in international tourism revenue compared to the baseline scenario is expected: 65-70% higher than last year's level (+€3.2 to +€4.0 billion from 2021)
- Recovery Fund: untimely and inefficient implementation, e.g., due to untimely implementation of the relevant reforms or inefficient use of resources.
- Eurozone recovery lower than current forecasts (4.3%).



2021-2022 macroeconomic forecasts

2021 Scenario

- Public consumption: from +6,0% to +6,5%
- Private consumption: from +5,0% to +5,5%
- Investment: from +18% to +20%
- Exports: from +10,5% to +11,5%
- Imports: from +11,0% to +12,5%
- **Growth: \approx 8,0-8,5%**
- Unemployment: \approx 15,6%
- Inflation: from 0,3% to 0,5%

Basic 2022 Scenario

- Public consumption: from -3% to -4%
- Private consumption: from +3,5% to +4,5%
- Investment: from +23% to +26%
- Exports: from +8,5% to +10%
- Imports: from +9,5% to +11%
- **Growth: \approx 4,0%**
- Unemployment: \approx 14,3%
- Inflation: from 0,3% to 0,5%

Alternative 2022 Scenario

- Public consumption: from -1,5% to -2,5%
- Private consumption: from +1,5% to +2,5%
- Investment: from +16% to +19%
- Exports: from +5,5% to +7,0%
- Imports: from +6,5% to +8,0%
- **Growth: \approx 2,0% έως 2,5%**
- Unemployment: 14,9%
- Deflation: from 0,3% to 0,5%

Special study

**The role of the Infrastructure and Construction Industry in
the next chapter of the Greek economy**

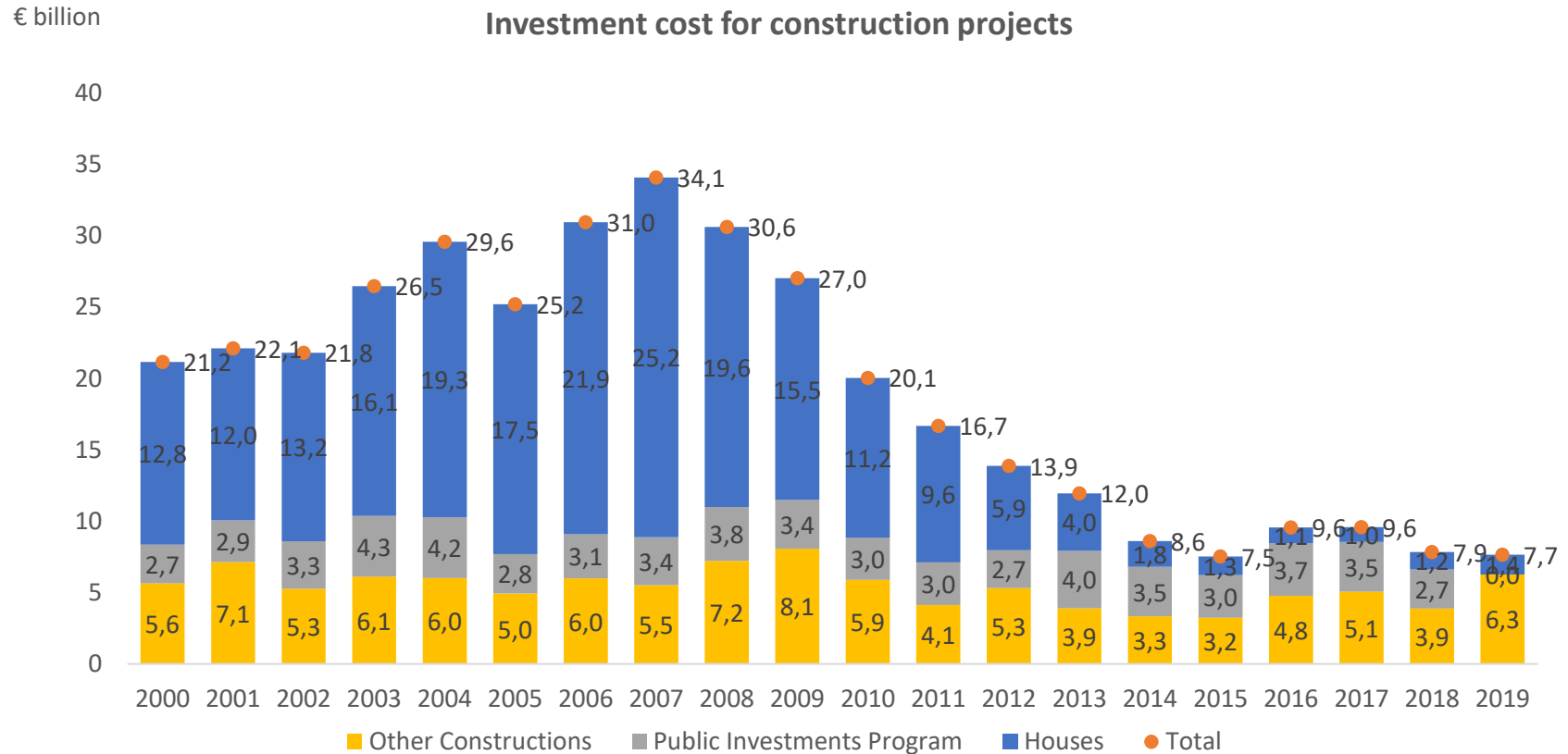


Scope of the study

- Analysis of recent data and developments in the Infrastructure and Construction Industry in Greece
- Role of the Infrastructure and Construction Industry in the recovery of the Greek economy, in relation to the priorities of the national development strategy
- Examination of obstacles and distortions faced by the Infrastructure and Construction Industry
- Identification of interventions to enhance the contribution of the Infrastructure and Construction Industry to the Greek economy



Total investments expenditure on construction projects decreased from €34.1 billion in 2007 to €7.7 billion in 2019 (22% of the 2007 level)



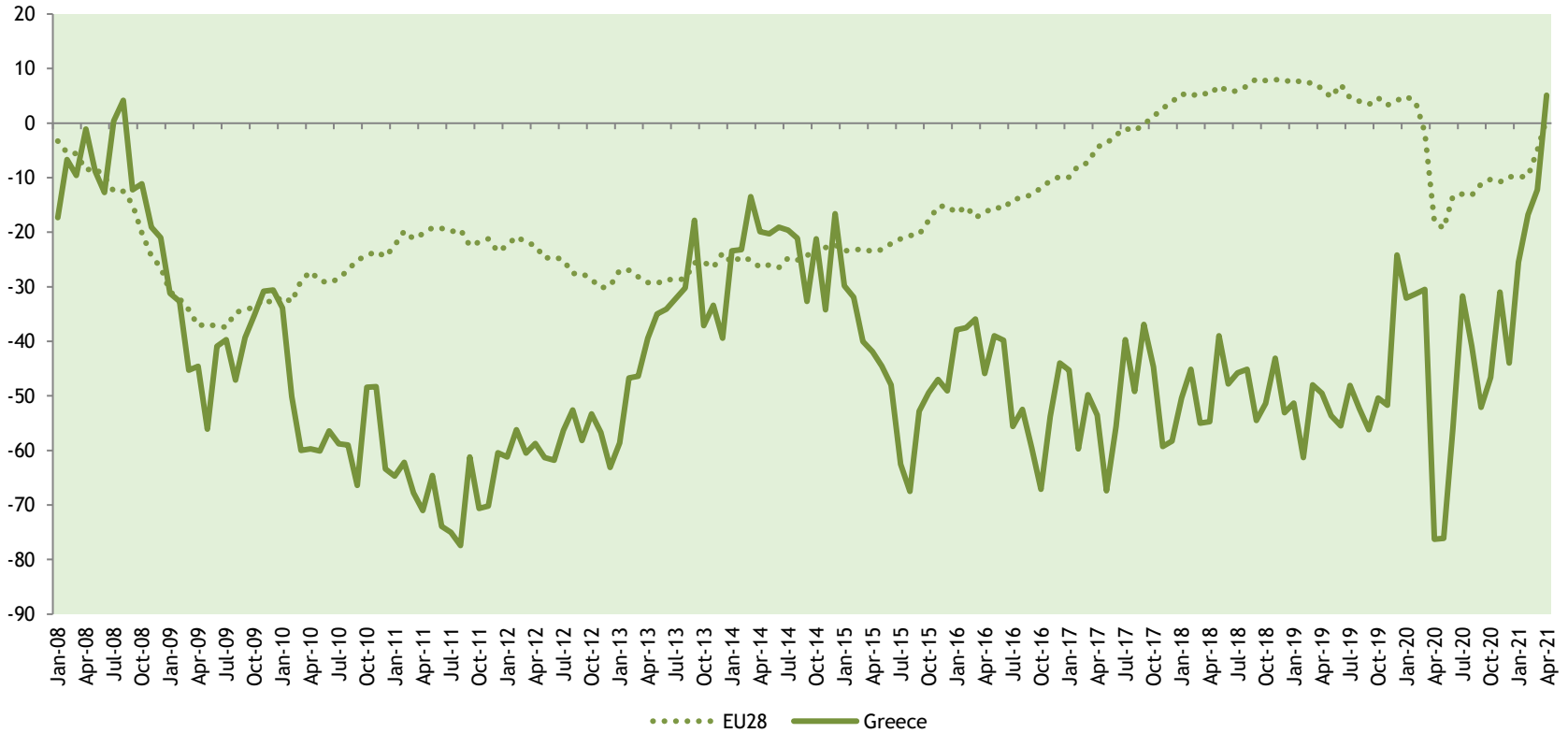
Source: Eurostat, National Accounts, Government Budgets and Reports. IOBE analysis. *The amounts of the Public Investments Program (PIP) only include the construction and maintenance of projects and not the total PIP spending.
* In 2019, other investments includes investments through the PIP

Most of the decline in total investments in construction projects is due to a decline in investments in housing



The forthcoming activation of resources of the Recovery and Resilience Facility improved expectations of the industry in April 2021 for the first time since the end of 2008

Business expectations in the Construction sector, January 2008-April 2021



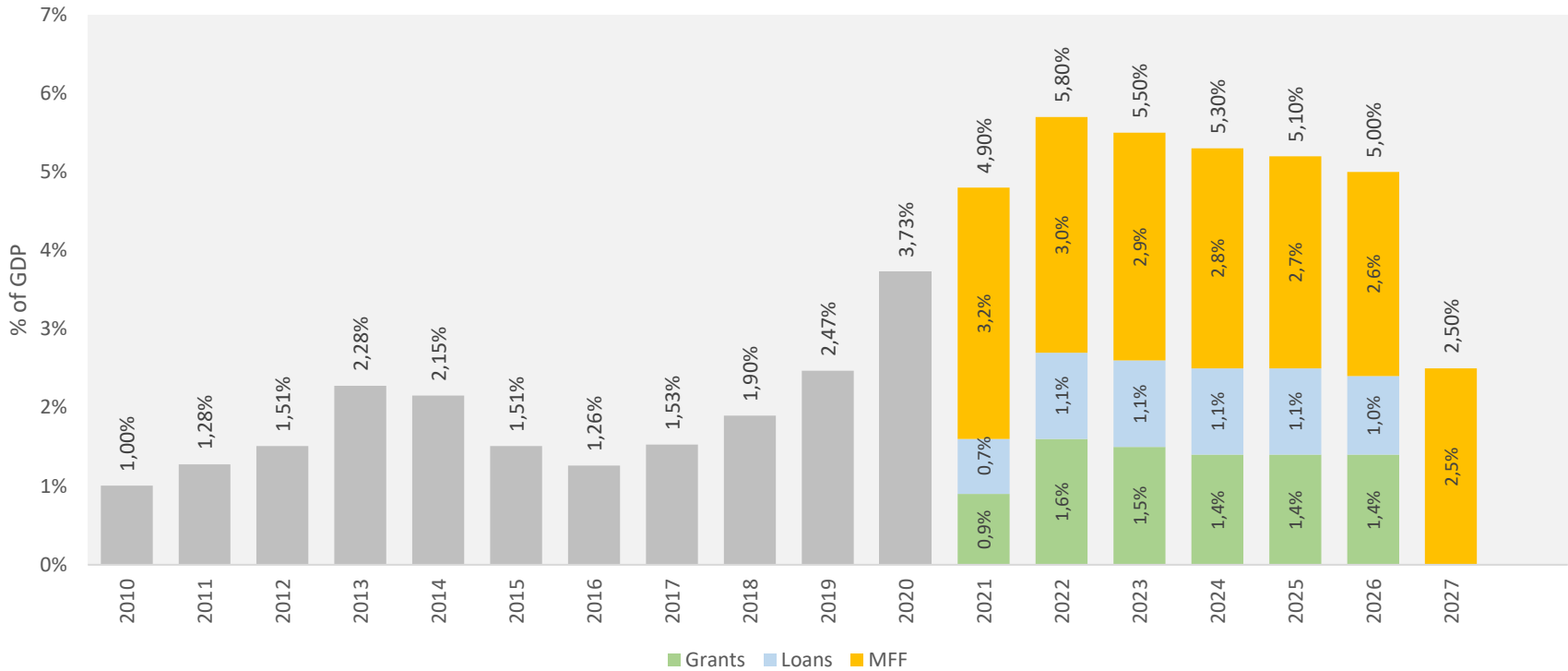
Sources: DG ECFIN, IOBE

Business expectations in the Construction sector in Greece were severely affected by the economic & health crisis



Expected Financial Resources from 2021-2027

EU Funding as a % of GDP, 2010-2027



Source: IOBE analysis

- The annual absorption of European funds by Greece from 2010-2019 ranged from 1%-2.5% of GDP
- The increased inflow from the additional resources of the Recovery Fund will require a significant increase in annual absorption to more than 5% of GDP



Strategic infrastructure planning

Improvements in the public constructions production system

Project financing - Innovations and PPPs

Private building activity

Business competitiveness

Human resources

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