Quarterly Report on the Greek Economy 01 / 21 April 20, 2021





ΙΔΡΥΜΑ ΟΙΚΟΝΟΜΙΚΩΝ & ΒΙΟΜΗΧΑΝΙΚΩΝ ΕΡΕΥΝΩΝ

Overview of the report



The last mile of the pandemic, with significant difficulties

- The developments regarding the pandemic are not the same around the globe; some countries are closer to the return to "normalcy", while others are still within a very difficult situation.
- The short-term economic outlook is positive; however, it cannot be considered that the health-care crisis has been tamed.
- The capacity for economic policy interventions is running out; over-indebtedness increases at both the private and public sector and new challenges emerge and need to be addressed urgently.
- For the Greek economy, this return to a state of twin deficits, which characterized the deep ten-year crisis, this time due to purely external factors, raises new concerns.
- A strong recovery is expected for the second half of 2021; however, related negative developments cannot be ruled out.
- The overall and primary fiscal deficit was particularly high last year; this is due to the decline in revenue, but mainly to the support measures for employment and businesses.

The last mile of the pandemic, with significant difficulties

- The Greek economy has to follow a fiscally sustainable path. This, however, will be particularly difficult to achieve if real growth rates do not increase in the medium term. It is crucial that the deficit is reduced gradually from this year; this implies stricter criteria for subsidies and favorable tax treatment.
- The Recovery Fund is of great importance. The resources that will come to Greece, however, are by no means sufficient to cover the existing investment gap; it is crucial to create a framework for mobilizing private investment funds.
- The main difficulty of the project is that large parts of the Greek public administration and business sector may not be able to implement demanding and innovative investment projects.
- It is necessary to introduce support measures for employment and to reduce the labor tax and insurance burden. It is also necessary to introduce targeted active policy programs and novel training programs.
- The new crisis has highlighted the need to improve the efficiency of the wider public sector.

International environment: Smaller contraction in 2020 and faster recovery in 2021

- The COVID-19 pandemic continues to put pressure on global economic activity,
 - Gradual de-escalation of the recession; however, there is heterogeneity across countries and sectors
 - Heterogeneity in the vaccination progress across countries New outbreaks of the virus in many countries
 - Additional support measures in developed economies contribute significantly to halting the effects of the pandemic; however, they increase public debt
 - Inability of developing countries to implement similar policies; the "gap" with developed countries is widening
- d' quarter 2020: Annual rate of change -3.0% in OECD countries, from -3.8% in the previous quarter
 - Global economy recession of 3.3% in 2020 milder than initially estimated (4.9%, June 2020) - compared to growth of 2.7% in 2019
- IMF forecasts global growth of 6% in 2021 (0.5pp higher than the January 2021 forecast) and 4.4% in 2022

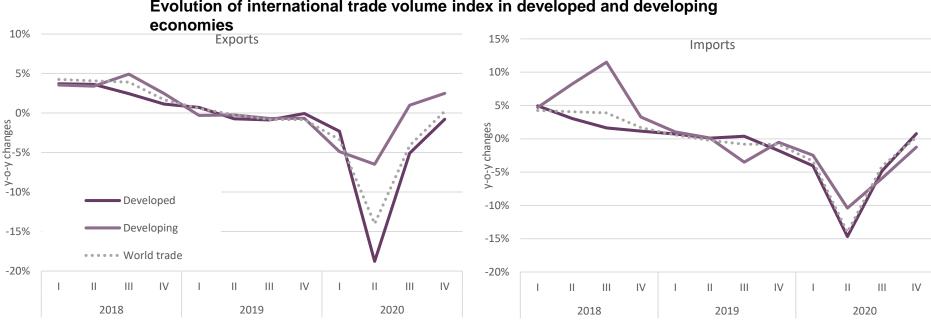
Worldwide

- Speed of production and distribution of vaccines and drugs
- Treatment of virus mutations
- Differences in the speed and quality of recovery across countries → depends on structural characteristics (e.g., importance of tourism)
- Implementation of policy interventions and sustainability of private and public debt

Europe

- Progress on the vaccination front in the EU
- Delays in the implementation of actions to support economies (e.g., European Recovery Fund and Multiannual Budget 2021-2027)
- Implementation of a consensual Brexit by the EU, following an agreement at the end of 2020

Larger international trade fluctuations in developed economies than in developing countries in 2020. Improvement of the trade balance in the latter.

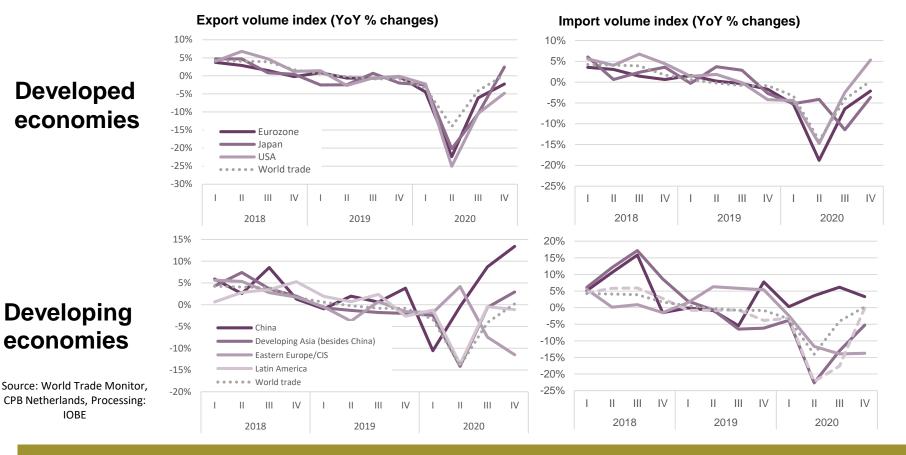


Evolution of international trade volume index in developed and developing

Source: World Trade Monitor, CPB Netherlands, Processing: IOBE

- The international trade volume index of developed countries decreased by 5.7% on the export side and 6.7% on the import side. Similar changes in developing economies, 5.0% and 2.0% respectively.
- In volume terms (\$2010 prices), the trade balance of developed economies deteriorated (deficit of \$728) • billion in 2020, from deficit of \$643 billion the year before), while that of developing economies improved (surplus of \$539 billion, from surplus of \$374 the year before).

Through international trade, shift of activity - at least temporarily - from the developed to the developing economies



- Developed economies: Large decrease in the trade surplus in Japan (-96.5%) due to a decrease in exports, increase in the trade deficit in the US (+7.1%), and reduction of surplus in the Eurozone (-19.6%)
- Developing economies: Small decline in trade surplus in China (-3.5%), large deficit decline in other Asian economies (-44.8%), and surplus rise in Latin America (+54.5%)

Greece: Weakening of the recession in the fourth quarter of 2020. The sharp decline in exports of services continues.

GDP, d' quarter 2020: -7.9%, compared to -11.7% in the third quarter of 2020 and +0.8% in the fourth quarter of 2019. The second largest decline in the Eurozone (average: -4.9%)

2020: recession of 8.2%, compared to growth of 1.9% in 2019

Most significant changes in the components of GDP (fourth quarter):

- Exports fell by 13.4% (from -1.2% in the fourth quarter of 2019). -21.7% in total in 2020.
 - Mainly from a new slump in services exports (-55.4%, from +0.7% in d' quarter 2019). Resilience of exports of goods (+13.6%, instead of -3.1%)
 - Smaller decrease in imports (-9.5%, from +1.4%). **Overall, imports fell by 6.9% last year.**
- Reduction of household consumption by 4.7% (from +2.5% the year before). **4.7% fall in 2020.**
 - Increase in public spending due to support measures and emergency recruitment (+7.3%, from 0.8%). Public consumption increased by 2.6% last year.
- Large investment decline by 19.0%, exclusively from less stocks (-€ 1.2 billion), following a 3.3% last year.
 - Fixed capital formation increased by 1.6%, compared to a 3.8% decline in the fourth quarter of 2019
 - Asset formation stagnation in 2020 (+0.3%). Rise in housing (+14.7%) and other constructions (+9.2%). Part of the Public Investment Program, which includes transfers due to COVID-19, is recorded in the latter capital category.

State Budget 2021: achievement of targets in the first two months

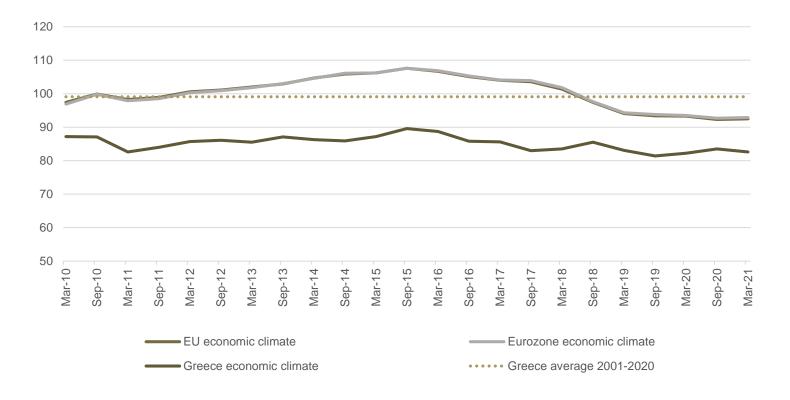
- State Budget Balance Jan.-Feb. 2021: deficit of €3.27 billion, against a deficit target of €4.5 billion.
- Primary balance: deficit of €1.5 billion, against a deficit target of €2.7 billion.
- Balance improvement mainly from expenditure reduction (-€959 million against target):
 - Suspension of listing of €2.36 billion of "non allocated expenditure" in transfers to businesses, due to covering part of the latter from the Public Investment Program.
 - Despite the extraordinary armament expenditure of €590 million.
 - <u>The achievement of the expenditure target is a challenge, with the support interventions at</u> €14 billion, against a €7.55 billion target in the 2021 Budget.
- But also, due to more revenue (+€280 million against target):
 - €209 million from the auction for 5G networks
 - Slightly higher tax revenue compared to the target, €7.62 billion instead of €7.56 billion

Trends in short-term activity indices

Industry	 Reduction of industrial production in 2020 by 2.1%, compared to a marginal decline of 0.7% in 2019 Losses in the Eurozone, with industrial production falling in 2020 by 8.7%, after a 1.4% decline in 2019. 	
Construction	 The production index fell by 9.5% last year, after a 6.1% decline in 2019 Reduction by 5.8% in 2020 in Building Construction, from 6.2% the year before. Larger losses in Civil Engineering, of 11.8%, following a 5.9% decline in 2019. 	
Tourism	 Large reduction in turnover by 62.7%, compared to an increase of 1.3% in 2019 	
Retail Trade	 Turnover decline by 5.4% during last year, following a marginal fall of 0.8% a year earlier 	

Improvement of the Economic Climate Index in Greece in the first quarter of 2021 compared to the fourth quarter of 2020 (93.2 points; up from 91.8 points)

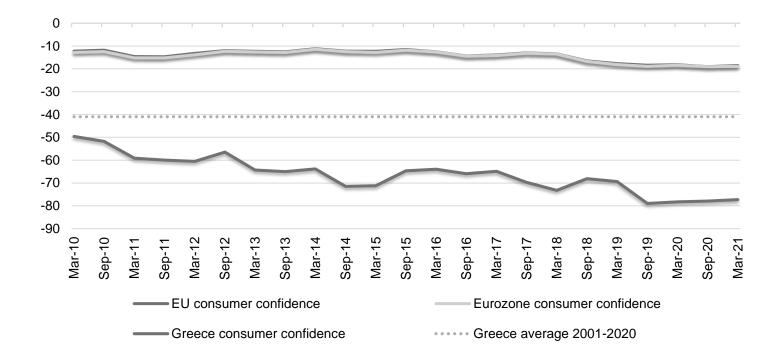
Economic Climate Index



Sources: IOBE, European Commission

Small increase of the Consumer Confidence index in a' quarter 2021 compared to d' quarter 2020 (-43.0; up from -46.2 units). At a significantly lower level compared to last year though (-10.4 units)

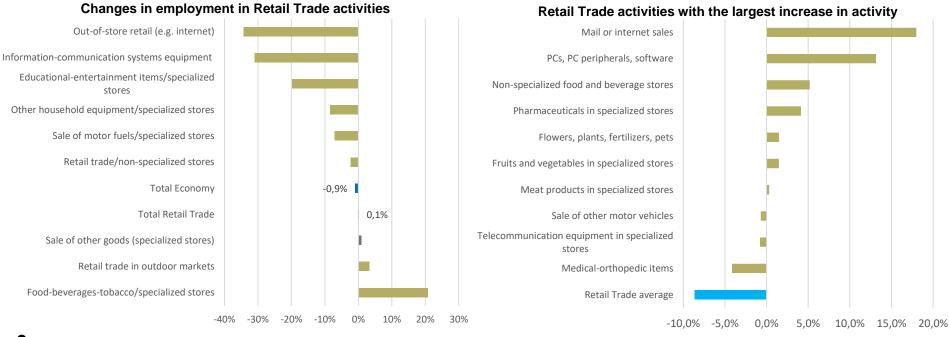
Consumer Confidence Index



Sources: IOBE, European Commission

Impact of the pandemic on Retail Trade in 2020

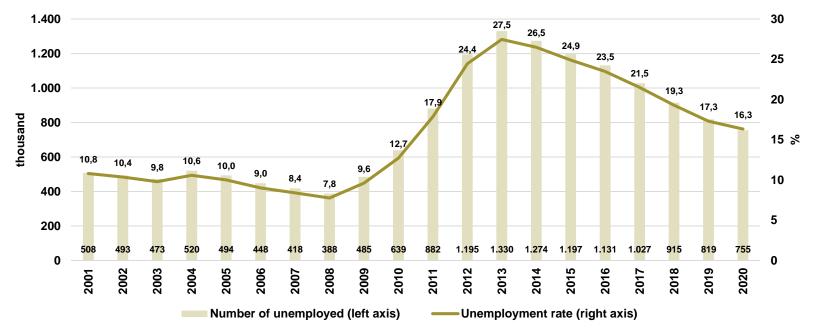
- Industry with the 3rd-4th highest contribution to the Greek economy (in terms of GVA, 4.5-6.0%) and the largest contribution to employment (~13.0%)
- Retail turnover fell by 8.0% last year, smaller reduction than that in the overall economy (-13.5%). Employment stability (+0.1%), due to support measures.



- **Biggest decline** in sales of jewelry (-46.8%), sales of textile products in outdoor markets (-39.8%), clothing (-36.6%), footwear-leather goods (-34.9%)
- **Rise mainly** in activities related to the effects the pandemic: online sales (+18.0%), PC sales electronics (+13.1%) and pharmaceuticals (+4.1%)
- Largest drop in employment in outdoor retail (-34.3%) and sales of information systems equipment (-31.0%). Rise mainly in food beverage tobacco stores (+20.7%)

Reduction of unemployment in d' quarter 2020 compared to a year ago. De-escalation for a 7th year in a row

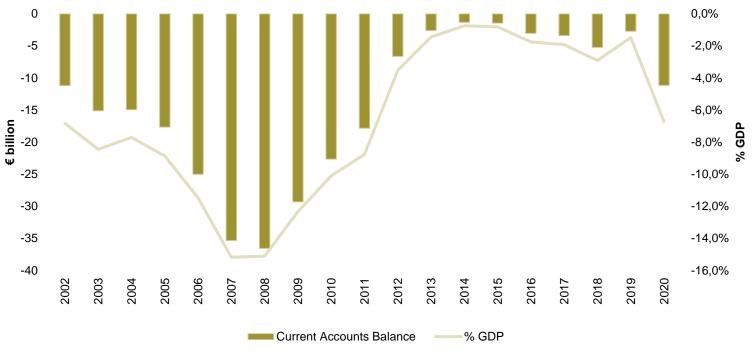
Number of unemployed and unemployment rate in Greece



Source: ELSTAT

- The unemployment rate in 2020 was 16.3%, down from 17.3% in 2019 and 19.3% in 2018. This is the largest decrease in the Eurozone, due to the measures to support jobs in the sectors affected by the pandemic and the increase of the inactive population.
- Employment increased in 11 sectors. Indicatively: Wholesale-Retail trade (+21.8 thousands), Health-social care (+20.6 thousands), Professional, scientific, technical activities (+11.3 thousands), Public administration (+9.0 thousands).
- Employment decreased in 10 sectors. Indicatively: Primary sector (-41.6 thousands), Tourism (-38.2 thousands), Water supply (-7.2 thousands), Construction (-6.9 thousands), Manufacturing (-6.0 thousands).

The Current Account Deficit more than quadrupled in 2020, €11.1 billion (6.7% of GDP) from €2.7 billion in 2019.

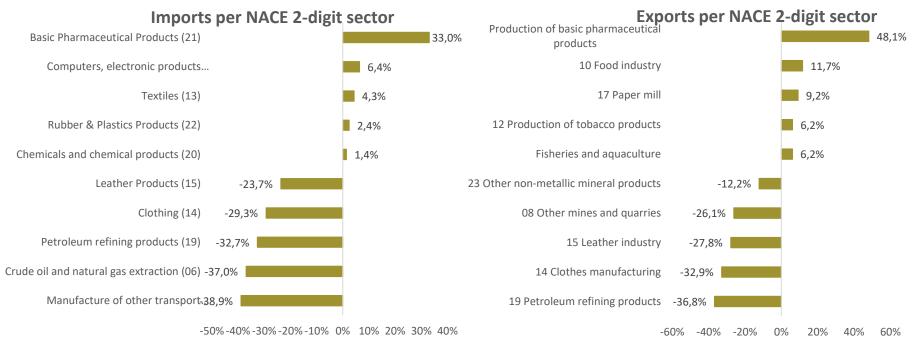


Source: Bank of Greece

- Decrease of exports/receipts by 24.8% whereas imports/payments declined by 14.1%.
- Improvement in the Balance of Goods, as the decline in the value of imports was double the decline in the value of exports.
- 43% of the correction in the balance of goods came from the balance of fuels.
- Tourism receipts decreased by €13.9 billion or 76.2% in 2020.

Effects of the pandemic on the trade of goods in Greece

% change 2019/2020



Source: Eurostat (EU trade by CPA)

Major export and import trends at sectoral level (they are related to the effects of the pandemic):

- Increase of exports and imports in some sectors, primarily in the Pharmaceutical sector
- Stronger need for computers in 2020 → stimulation of imports
- Increase in Food and Paper products exports
- Significant decline in fuel exports and imports, due to quantity and price reduction (-30%)

Trade trends by destination and product category

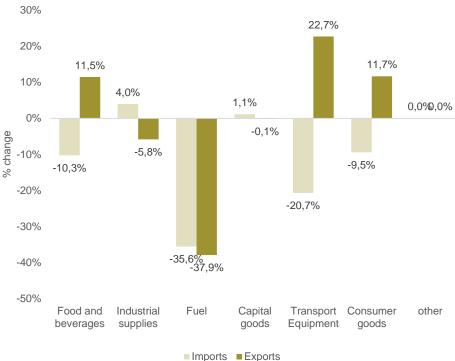
Change in exports by country

France		48,6%
Poland		14,4%
Romania		7,0%
Germany		4,4%
Spain		1,9%
Netherlands	-1,6%	
Cyprus	-4,2%	
China	-4,2%	
United Kingdom	-5,5%	
Bulgaria	-6,2%	
Gibraltar	-10,2%	
Albania	-11,0%	
Italy	-11,4%	
USA	-12,9%	
North Macedonia	-32,1%	
Turkey	-32,2%	
Slovenia	-38,6%	
Lebanon	-44,3%	
Egypt	-47,2%	
Saudi Arabi s (),0%	

Trends by country: • Increase in imports from Ireland (+102%) due to pharmaceuticals and from the

Netherlands

(+8,9%) Increase in exports to France (+49%) and Poland (+14%) Decrease in imports from South Korea due to transport equipment and from Iraq due to fuel Decrease in exports to Saudi Arabia and Egypt due to fuel



Exports by category of goods

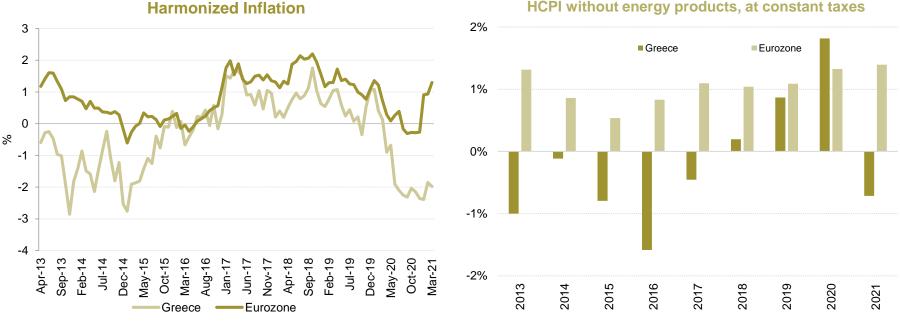
-80%-60%-40%-20% 0% 20% 40% 60%

By category of goods:

- Increase in exports of Food and Beverages, Transport Equipment and Consumer Goods in 2020, with a simultaneous decline of imports in these categories
- Exports and imports of capital goods basically remain the same
- Decrease in exports of industrial supplies, with a corresponding increase in imports

Source: Eurostat (EU trade by BEC)

Deflation in the first quarter of 2021, mainly due to indirect taxation



HCPI without energy products, at constant taxes

Sources: ELSTAT, Eurostat

Eurozone: Milder inflation in the first guarter of 2021 compared to last year, 1.0% from 1.2%

Greece: Negative rate of price change in the first quarter of 2021, -2.1%, compared to 0.5% in the January-March period of 2020

Negative impact of indirect taxes (-0.9%), domestic demand (-0.7%) and energy goods (-0.5%)

Producer Price Index (January - February 2021): 2.7% decrease, compared to an increase of 1.1% in the first two months of 2020, mainly due to Coke Products

Ample bank liquidity, Hercules II program starting up, focused credit expansion

Positive developments

- Large reduction in NPLs in the 4th quarter of 2020 (sales, Hercules I)
- Significant increase in private deposits
- Further increase in credit to companies
- Low cost of new public and private sector lending

Challenges

- A large share of loans is in suspension or in a cash facility scheme due to the pandemic
- Reduced repayment ability in affected sectors
- Pressure on profitability due to low interest rates

Priorities

- Immediate implementation of Hercules II to reduce NPLs, in order to strengthen the lending capacity of banks
- Extension of systemic solutions to improve asset quality (NPLs, deferred taxation)

- The ECB continues to offer banks access to cheap financing and temporary flexibility of supervisory rules over NPLs.
- Bank financing to businesses continues at a two-digit annual expansion rate, while the credit contraction to households remains unabated.

Consecutive pandemic waves domestically and internationally → Pressure on economic activity, but also on public finances, uncertainty remains high, postponement of economic decisions

More businesses in operation compared to the first outbreak, higher mobility of citizens \rightarrow better adaptation to the conditions

At the same time, there is a prospect for overcoming the crisis: the vaccination process is accelerating, there are more means of detecting the virus (self-tests)

Continuation of the vaccination process at a fast pace

> Control/improvement of the epidemiological situation

Start of tourist season

Improvement of expectations, facilitation of decisionmaking Re-opening of the economy and institutions (education, justice), based also on new means of virus detection

> Ease of pressure on businesses and households

Prospect of returning to normality

Prevention of new virus outbreaks/restrictive measures Utilization of unprecedented access to liquidity for strong boost to investment and reforms

> Thanks to the **ECB's** tools and the return of deposits, greater financing of the real economy, on much better terms

The European Recovery Fund offers an unprecedented opportunity to promote the necessary investment to modernize the Greek economy → an acceleration of processes is required, mainly at the EU level

Sustainable financial management

Focus on expenditure that helps the private and public sectors **adapt** to the new conditions

Avoid spending that widens the deficit and the debt, without enhancing the Greek economy's ability to generate income and contribute to public finances

Basic Scenario:

- Most of the existing public health protection measures in force for most of the first half of 2021.
- Compared to the first lockdown, more businesses in operation and higher mobility of citizens.
- Tourism reopening as of mid-May. Tourist period will last until the beginning of the fourth quarter. Revenues at 45-50% of their 2019 level, up from 24% in 2020.
- No new "resurgence" of the pandemic in the second semester of 2021. Possible new small temporary escalations.
- NextGenerationEU: expected in the second semester of 2021, achievement of the Budget target (€5.5 billion).
- Eurozone GDP: growth in 2021, in line with recent forecasts (IMF: 4.4%).

Alternative (adverse) scenario:

- Slower de-escalation of the current outbreak, in Greece and internationally, until late-second quarter. Most of the public health protection measures in force for a longer period.
- Tourism will reopen in the beginning-middle of June (like in last year). End of tourist season at the beginning of the fourth quarter. Revenues at 35-40% of their 2019 level.
- Restrictive measures imposed again in the third quarter, milder than the previous lockdowns (e.g., due to self tests). Additional support measures for households and businesses.
- NextGenerationEU: absorption below target in Budget 2021: ≈ €4.0 billion
- Eurozone GDP: growth in 2021 lower than recent forecasts: ≈3.5%.

Basic Scenario

- Public consumption: -3.0% to - 4.0%

Private consumption: +2.5% to +3.5%

Investment: +12% to +15%

Exports: +11% to +13%

Imports: +8% to +11%

- Growth: 3.5% to 4.0%
- Unemployment: 15.5% 16.0%
- Inflation: 0.1 to 0.3%

Alternative (Adverse) Scenario

- Public consumption: -1.0% to -2.0% Private consumption: + 1.0% to +1.5% Investment: +7% to +9% Exports: +6% to +8% Imports: +4% to +6%
- Growth: ≈1.5% to 2.0%
- Unemployment: 17.0 17.3%
- Inflation: -0.3 to -0.5%



Evaluating the impact of labor market reforms in Greece during 2010-2018



During the three successive economic adjustment programs from 2010 to 2018, Greece legislated and implemented **radical labor market interventions**

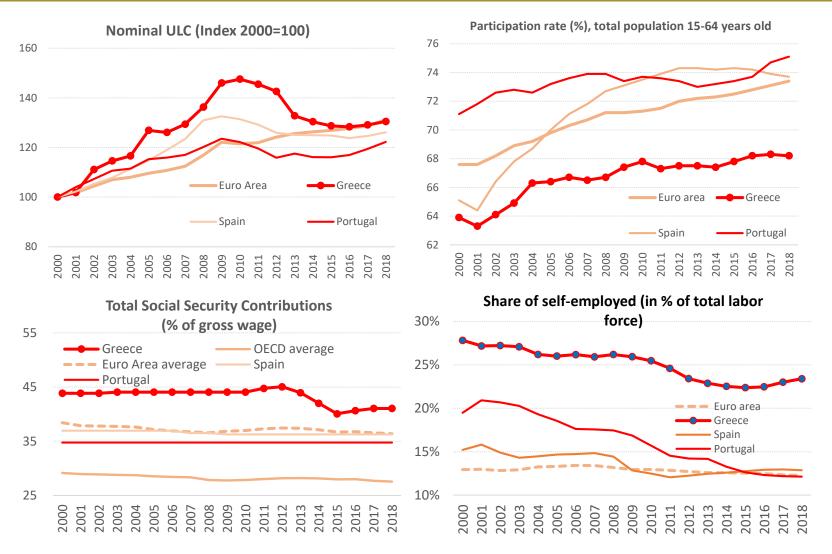
Objectives

- Assessment of the effects of labor market reforms on the microeconomic incentives of individuals to enter the formal labor market
- Assessment of the impact of labor market reforms on selected macroeconomic and social indicators

Two complementary approaches

- The first is based on micro-founded simulations at the household level (use of EUROMOD application, EU-SILC base microdata).
- The second is based on a macroeconomic approach at the country level. Use of the generalized synthetic control method, which allows the estimation of counterfactual scenarios for selected macroeconomic and social indicators, in the absence of labor market reforms.

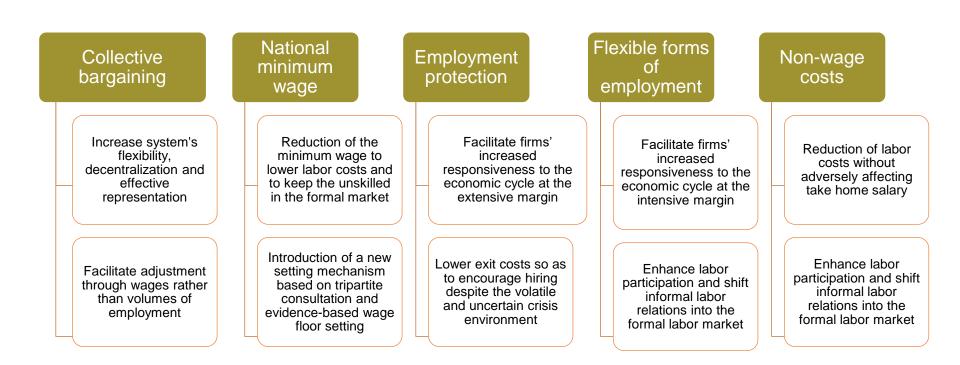
The Greek labor market has shown structural weaknesses over time, combined with a particularly high unemployment rate



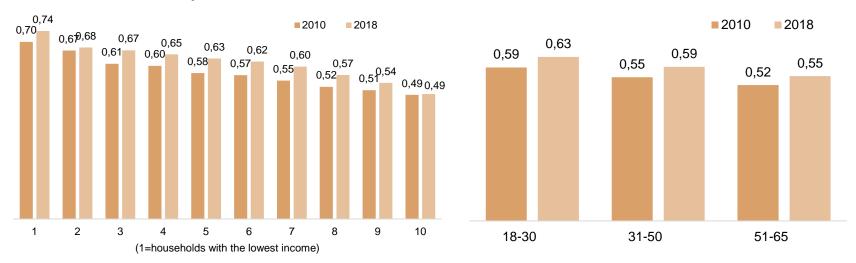
Note. Nominal ULC is defined as the ratio of gross earnings per employee to real GDP per employee. The participation rate is defined as the ratio of the labor force to the active population.

Sources: Ameco, Eurostat, OECD, Processing: IOBE

The interventions in the labor market from 2010-2018 concern five main areas



Employment counterincentives increased during 2010-2018...



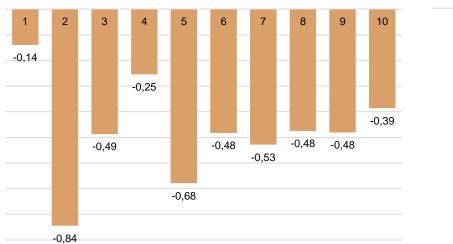
PTR by income decile

PTR by age group

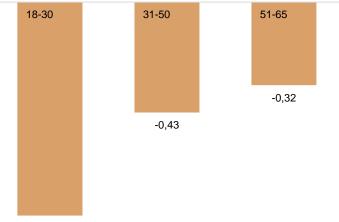
Note. The Participation Tax Rate (PTR) is defined as the share of gross earnings recovered if the employee becomes unemployed, ceteris paribus. It can be seen as an approximation of disincentives for formal work.

Sources: EUROMOD, EU-SILC, Estimates: IOBE

... particularly among younger and male population. Counterincentives remain higher for low income earning households, young and female population. Counterincentives for employment dropped after the 2014 reform, with a stronger positive effect on young people



2014 Reform: Reduction of PTR per income decile (in ppts)



2014 Reform: Reduction of PTR by age group (in ppts)

Note. The Participation Tax Rate (PTR) is defined as the share of gross earnings recovered if the employee becomes unemployed, ceteris paribus. It can be seen as an approximation of disincentives for formal work.

Sources: EUROMOD, EU-SILC, Estimates: IOBE

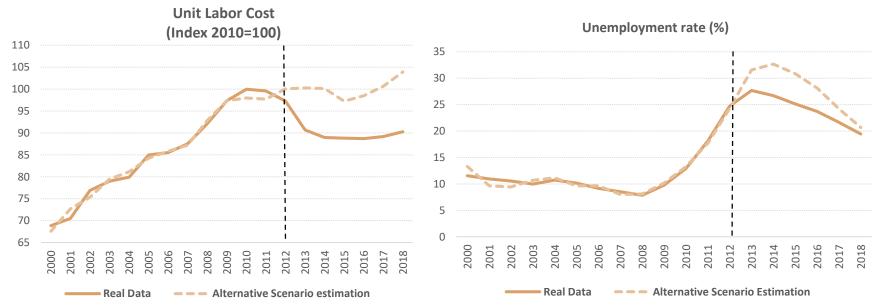
• It is estimated that the intervention of 2014 led to an increase in participation in the labor market by about 28 thousand people.

-0.83

• Overall, however, the impact of the intervention was limited, as counterincentives remained high for women and young people.

Labor market interventions in 2012 seem to have had a positive effect on improving cost competitiveness...

Assessment of the course of selected indicators in an alternative scenario without labor market reforms in 2012



Note. The unemployment rate is defined as the ratio of the number of unemployed to the labor force. Unit Labor Cost is defined as the nominal wage per employee in the business economy to real GDP per hour worked.

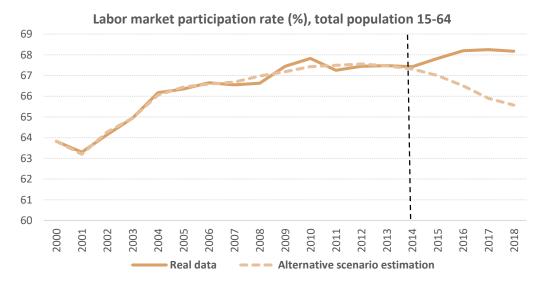
Source: Eurostat, Estimates: IOBE, based on the generalized synthetic control method

...partially curbing unemployment and increasing part-time employment. On the contrary, it appears that the 2012 interventions did not improve the rates of participation in the formal labor market, while they increased the average working hours and inequality.

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Estimation of labor market participation in an alternative scenario without the reduction of employees' social security contributions in 2014



Note. The participation rate is defined as the ratio of the labor force to the active population.

Source: Eurostat, Estimates: IOBE, based on the generalized synthetic control method

...in line with the findings from the microeconomic simulations.



During the economic adjustment programs, radical interventions in the labor market were implemented in Greece. Empirical data show that:

- To a large extent they fulfilled the goal of increasing cost competitiveness.
- They increased flexibility in labor market regulations, through which they partly supported the goal of adjusting the labor market through prices (wage reduction) rather than through employment (layoffs).
- They left, for the most part, unresolved other long-term weaknesses such as low labor market participation and high tax burden.



(1) There are indications that **further reduction of the tax burden** may strengthen labor market participation, thus enhancing the medium-term growth prospects.

(2) Other areas with structural labor market weaknesses that need to be addressed:

- Skills mismatch
- Insufficient vocational education and training
- Low effectiveness of active labor market policies
- Undeclared work

(3) It is considered necessary to continuously monitor the trends of the Greek labor market, so that policy makers can implement measures to:

- further increase labor productivity
- reduce unemployment and inequality

Thank you for your attention!

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