HELLENIC REPUBLIC
Ministry of Finance

Stability Programme 2022

Athens

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Preface

The Stability Programme of the Hellenic Republic for the period 2023-2025 is submitted to the Council and to the Commission in line with the requirements set out in Council Regulation (EC) 1466/1997 and corresponds to the national medium-term fiscal plan of Article 4(1) of Regulation (EU) 473/2013 of the European Parliament and of the Council.

The format and content of the Stability Programme are in line with the updated "Code of Conduct of the Stability and Growth Pact" that has been agreed by the Economic and Financial Committee on 15 May 2017.

In addition to the activation of the general escape clause of the Stability and Growth Pact as a result of the pandemic, regarding any possible temporary violations of the Greek fiscal rules and the Greek budgetary framework in general, the "extraordinary circumstances" clauses of articles 37.3 and 38.2 of L.4270/2014 will be relied on. The macroeconomic forecasts included in the Stability Programme have been endorsed by the Hellenic Fiscal Council (HFC), as required under Article 4(4) of Regulation (EU) 473/2013.

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Executive summary

Despite the ongoing Covid-19 effects, the Greek economy returned to a firmly positive territory since the second quarter of 2021, which led to a strong real growth of 8.3% in 2021 as a whole, almost fully offsetting the 9% contraction recorded in 2020, on the back of the re-opening of the economy, policy support measures and adaptability effects.

On the demand-side of the economy, the main drivers behind the strong expansion of real output in 2021, were private consumption, exports of goods and services and gross fixed capital formation. On the supply-side, Gross Value Added rebounded strongly by 7.5% y-o-y, with the business sectors that had suffered the biggest drop in production in 2020 experiencing the best performance, namely wholesale/retail trade and tourism-related activities (19.4%), followed by arts and entertainment activities.

On the price front, headline HICP inflation turned positive in 2021 as whole, standing at 0.6%, after an abrupt decrease in 2020 (-1.3%). It moved into positive territory at the end of the second quarter, as economic activity recovered and accelerated henceforth, mainly due to lingering supply chain disruptions and strong increases in international energy prices. Energy inflation was the main driver of headline inflation.

At the outset of 2022, the growth momentum in the EU was expected to slow down in the first quarter of the year, amid headwinds related to the resurgence of the pandemic (Omicron variant) and high inflationary pressures, but regain traction in the second quarter, remaining robust thereafter. However, the outbreak of the Ukrainian crisis, since February 24th, has completely altered the global and the European economic landscape, by fueling uncertainty and price volatility, worsening supply chain disruptions, accelerating inflation, with wholesale energy prices hitting record-breaking highs, and damaging world production.

This is also the case of the Greek economy, as the Ukraine war weighs on the initially expected strong growth for 2022, on the back of the favorable carry-over effect from a better than anticipated economic recovery in 2021 and the start of the Recovery and Resilience Plan (RRP) implementation. The main economic impact of the war is expected to come through the escalation of energy prices (natural gas, heating oil, electricity, fuels and lubricants) and the consequent rise in commodity prices.

Nevertheless, well-targeted support to vulnerable households and businesses overly exposed to the energy crisis (fuel rebate, subsidy for households’ and businesses’ electricity and natural gas bills and heating allowance) can partly offset the negative impact of the acute inflationary pressures on growth. The aforementioned measures, coupled with the remaining pandemic-related measures, new relief fiscal measures, such as the new reduction in property tax (ENFIA), and the second increase in the minimum wage as of May are expected to mitigate the forecasted slowdown of the economic growth in 2022.

Real GDP is expected to continue growing solidly by 3.1% in 2022, albeit at a slower pace than the DBP 2022 forecast of 4.5%. Final domestic demand is expected to remain the main driving force behind the real GDP growth, with a positive contribution of 2.5 pp. Against the adverse global economic conditions which increase uncertainty, the implementation of the RRP investments and reforms together with a growth-friendly fiscal policy and the continued supportive stance by the ECB are expected to sustain investment activity to relatively robust levels.

Estimations for HICP inflation point to a sharp increase to 5.6% in the current year, mainly on account of the rising trend in imported energy prices since the end of 2021, further intensified due to the Ukraine war.

The Greek economy is projected to gather strong pace in 2023, with real GDP expanding by 4.8% y-o-y. HICP inflation is expected to moderate to 1.6%, given the high increases of the previous year.

In the medium-term, growth prospects are expected to remain highly positive, on account of the pursued broad economic and institutional transformation of the Greek economy towards a more extrovert, competitive, green and digital economic model. At the end of the period, the economy should have regained most of the losses sustained due to the energy crisis. In this context, real GDP is projected to grow by an average annual rate of 3.4% in 2024 and 2025, mainly supported by domestic demand, with private consumption and investment contributing cumulatively equally to GDP at the end of the period 2024-2025 (2.9 pp).

In 2021, Greece recorded a deficit in the headline balance of -7.4% of GDP, while the primary balance reached -5% of GDP, due to the extended duration of the pandemic crisis, the related containment measures and the necessary targeted measures adopted to mitigate its consequences and to support households and businesses. Despite those measures, the fact that tax and social security contributions revenues performed significantly better than originally projected thanks to the faster than expected economic recovery after the deep recession of 2020, led to a much better fiscal outcome than estimated back in autumn 2021.

For 2022 the headline budget balance and the primary balance are estimated at -4.4% and -2.0% of GDP respectively. The adverse effects of the COVID outbreak are expected to be significantly reduced and targeted support already phases out gradually. Despite the strong positive carry over effect on tax and social contribution revenues from 2021, this is not equally reflected in the fiscal balance due to the growth slowdown because of the Ukrainian crisis and the subsequent inflation pressures to households and businesses and the adopted new supportive measures.

In 2023, the general government deficit is expected to shrink significantly to -1.4% of GDP and the primary balance to return to positive ground, reaching +1.1% of GDP. The headline deficit is projected to show a continuous decline in the subsequent years and the primary balance a continuous improvement. It is expected that the general government budget will be almost balanced by the end of the projection period.

It is important to note that the general government gross debt as a percentage of GDP outlook is considerably improved compared to the Stability Programme (SP) 2021, driven by higher nominal GDP growth. In 2021 debt/GDP ratio resulted to 193.3% vs 204.8% projected in the SP2021; in 2022 is currently projected to 180.2% (returning close to the pre-pandemic levels of 2019 that was equal to 180.7%) vs 189.5% projected in SP2021; in 2023 is projected equal to 168.6% vs 176.7% in SP2021 and in 2024 is projected equal to 155.2% vs 166.1% foreseen in SP2021. Finally, by 2025 debt/GDP ratio, is projected to fall below 150%, currently estimated equal to 146.5%.

1. Economic outlook

1.1 Macroeconomic outturn 2021

For the European economy, 2021 was a year of a faster-than-expected economic recovery after the deep pandemic-induced recession in 2020, despite uncertainty related to the emergence of recurrent waves of COVID-19 infections and resulting restrictions throughout the year. The resumption of economic activity, ample fiscal policy support - including, in part, NGEU funds - and accommodative monetary policy, in conjunction with the expansion of vaccination and the adaptability to challenges posed by the ongoing pandemic, helped cushion the hit and paved the way for the recovery. That said, EU and Euro area real GDP grew by 5.3% y-o-y in 2021 against a contraction of 5.9% in the previous year for the EU and 6.4% for the Euro area real GDP.

Accordingly, the Greek economy returned to a firmly positive territory since the second quarter of 2021, which led to a strong real growth of 8.3% in 2021 as a whole, almost fully offsetting the 9% contraction recorded in 2020, on the back of the re-opening of the economy, policy support measures and adaptability effects.

On the supply-side of the economy, Gross Value Added (GVA) rebounded strongly by 7.5% y-o-y, with the business sectors that had suffered the biggest drop in production in 2020 experiencing the best performance, namely wholesale/retail trade and tourism-related activities (19.4%), followed by arts and entertainment activities (12.5%). Industry and construction sectors both contributed significantly to the upturn in GVA, logging 10.3% in annual terms. Consistent with these developments, the industrial production index pointed to an expansion higher than that of pre-pandemic years, growing by 9.8% y-o-y (seasonally adjusted data), mainly driven by notable increases in manufacturing output and electricity production. Similarly, private building activity (volume) soared by 45.9% y-o-y, indicating the strength of construction activity in 2021. Moreover, the rebound in economic activity is also reflected in the annual turnover for the total of enterprises in the Greek economy, which rose by 21.1% y-o-y in 2021, with the largest increase being recorded in the Accommodation and Food Service Activities (59.8%).

On the demand-side of the economy, the main drivers behind the 8.3% expansion of real output in 2021, were private consumption, exports of goods and services and gross fixed capital formation.

Real private consumption bounced back strongly by 7.8% y-o-y, making the largest positive contribution to growth (5.5 pp). This expansion reflected the release of pent-up demand backed by accumulated private savings during the lockdown period, the ongoing recovery of the labour market, supported by policy response measures and increasing confidence in retail trade. At the same time, retail trade in volume terms rose significantly by 10.2% y-o-y and the turnover for the total of enterprises classified in retail trade divisions saw an 11.9% increase compared to 2020, with luxury goods and clothing increasing the most. Additionally, employment gains thanks to the restart of economic activity and fiscal stimulus led to a positive annual growth rate for compensation of employees (1.7%), while increasing familiarity with e-commerce (22% y-o-y rise in the first quarter of 2021) boosted further private spending. Meanwhile, the still high precautionary savings of households and firms (9.9% annual rate) supported private spending.

Real exports of goods and services performed strongly, rising by 21.9% y-o-y after the sharp dip in 2020. Exports of goods continued to over-perform (9.7% y-o-y), posting a new record high on level terms amid the recovery of international trade, despite ongoing supply chain disruptions due to the pandemic. In parallel, exports of services recovered considerably, thanks to a stronger-than-expected rebound in tourism, with tourist arrivals doubling and tourist receipts over-doubling compared to 2020, and a robust transport activity. At the same time, real imports showed an extraordinary growth of 16.1% y-o-y in line with domestically driven recovery, weighing on growth. In the same vein, according to Bank of Greece data, the current account deficit improved slightly relative to 2020 (-5.9% of nominal GDP vs. -6.6%), thanks to the recovery of travel and sea transportation receipts and the steady growth of exports of goods, which partly offset the increase of imports amid the restart of economic activity.

Gross fixed capital formation closed the gap to its pre-pandemic level in 2021, pointing to a double digit increase of 19.6% y-o-y compared to 2020 and 19.3% compared to 2019, mainly underpinned by machinery and transport equipment as well as residential construction. High levels of economic sentiment and the materialization of postponed investment plans on the back of high accommodative fiscal and monetary policies provided supportive factors for investment. Higher corporate credit growth compared to 2019 continued to facilitate investment (4.5% vs. 1.8%), though decelerating compared to 2020 (9.4%), amid the normalization of firms' liquidity conditions and a phasing out of liquidity support measures. Surging foreign direct investment at record levels (5.1 bn € or 2.8% of GDP), with real estate activities representing the highest share of total FDI, further boosted private investment.

Likewise, real public consumption continued to provide support to the economy, standing above its pre-pandemic level and growing by 3.7% y-o-y, amid increased government spending to address the negative impact of the ongoing pandemic.

Economic recovery in 2021 was underpinned by a steadily improving labour market by the middle of the second quarter, thanks to the lift of the majority of restrictions ahead of the tourist season as well as employment support measures. Total employment (on a national account basis) increased by 0.5% y-o-y in 2021 (-1.2% in 2020), mainly driven by employment growth in real estate activities, agriculture and industry. Instead, employed persons in arts and entertainment, retail/wholesale trade, tourism and financial activities decreased. Moreover, dependent employment flows in the private sector improved in 2021, while exceeding 2019 levels (133.1 thousand persons vs. 93.0 in 2020 and 127.6 in 2019). Similarly, the LFS unemployment rate continued its downward trajectory (14.7% from 16.3% in 2020).

On the price front, headline HICP inflation turned positive in 2021 as whole, standing at 0.6%, after an abrupt dip in 2020 (-1.3%). It moved into positive territory at the end of the second quarter, as economic activity recovered and accelerated henceforth, mainly due to lingering supply chain disruptions and strong increases in international energy prices. Energy inflation was the main driver of headline inflation.

1.2 Macroeconomic projections for 2022

At the outset of 2022, the growth momentum in the EU was expected to slow down in the first quarter of the year, amid headwinds related to the resurgence of the pandemic (Omicron variant) and high inflationary pressures mainly driven by the strong recovery of demand and persistent logistic and supply bottlenecks, but regain traction in the second quarter, remaining robust thereafter. In this regard, according to the European Commission's winter interim forecast as of February 10th, EU and Euro area real GDP was projected to grow by 4% y-o-y in 2022, revised slightly down by 0.3 pp compared to the autumn forecast.

However, the outbreak of the Ukrainian crisis, since February 24th, has altered completely the global and the European economic landscape, by fueling uncertainty and price volatility, worsening supply chain disruptions, accelerating inflation, with wholesale energy prices hitting record-breaking highs, and damaging world production, as Russia and Ukraine are important suppliers of raw materials such as energy, metals, and agricultural products (cereals). The magnitude of the economic impact of the war is highly uncertain and will depend on its duration, the extent of the sanctions imposed on Russia and the policy responses to the acute energy crisis.

According to the baseline scenario of the ECB staff macroeconomic projections as of March 2022 -which includes a first estimate of the negative impact of the war accompanied by two alternative scenarios- GDP growth in the Euro area is estimated to remain relatively strong, but slow down at 3.7% against 4.2% in the December 2021 projections. In the adverse scenario, real growth is estimated to fall by 1.2 pp relative to the baseline scenario, reaching 2.5%, and even more significantly, by 1.4 pp in the severe scenario. As regards inflation, it is estimated to increase, on average, by 5.1% in 2022, revised up by 1.9 pp relative to the December projections, by 5.9% in the adverse scenario and by 7.1% in the severe scenario.

The new, exogenous supply-side shock to the world economy came at a time that EU countries had recouped the most pandemic losses and anticipated a robust growth for 2022 as a whole, supported by ongoing labour market gains, high accumulated savings, still favorable financing conditions and the full deployment of the Recovery and Resilience Facility (RRF).

This is also the case of the Greek economy, as the Ukraine war weighs on the initially expected strong growth for 2022, on the back of the favorable carry-over effect from a better-than anticipated economic recovery in 2021 and the start of the Recovery and Resilience Plan (RRP) implementation. The main economic impact of the war is expected to come through the escalation of energy prices (natural gas, heating oil, electricity, fuels and lubricants) and the consequent rise in commodity prices, as it is already visible in the latest readings of HICP inflation. Despite sizeable energy imports from Russia (21.5% of Greece's total energy imports in 2021), other direct impact with respect to exports is expected to be limited, as Greece's exports of goods to Russia and Ukraine and tourist receipts from both countries is a small fraction of total exports. In parallel, indirect effects through spillovers from EU trading partners due to a slowdown in growth momentum are expected to be more substantial.

Nevertheless, well-targeted support to vulnerable households and businesses overly exposed to the energy crisis can partly offset the negative impact of the acute inflationary pressures on growth. To this direction, a series of one-off policy support measures to shield the most vulnerable, such as fuel rebate, subsidy for households' and businesses' electricity and natural gas bills and heating allowance, are already being implemented. The aforementioned measures, coupled with the remaining pandemic-related measures, new relief fiscal measures, such as the new reduction in property tax (ENFIA), and the second increase in the minimum wage as of May are expected to mitigate the forecasted slowdown of the economic growth in 2022.

On top of these, the implementation of the Greek RRP constitutes the key factor behind the expected economic growth, as it is estimated to add 1.9 pp to real GDP in 2022. In parallel, economic growth will be facilitated by the still supportive fiscal stance at the European level in 2022, in conjunction with the extension of the reinvestment horizon for the Pandemic Emergency Purchase Programme (PEPP) until at least the end of 2024, in spite of its expiry at the end of March, including the ability to purchase Greek government bonds, as part of PEPP reinvestments.

In light of the above, the baseline macroeconomic scenario expects real GDP to continue growing solidly by 3.1% in 2022, albeit at a slower pace than the DBP 2022 forecast of 4.5%. Final domestic demand is expected to remain the main driving force behind the real GDP growth, with a positive contribution of 2.5 pp. Among components, real private consumption is estimated to contribute the most (1.7 pp), growing by 2.4%, despite the negative impact of the energy crisis on disposable income, largely due to a strong carry-over effect, the fiscal policy support to shield households' disposable income, steadily improving labour market conditions and an anticipated decreasing impact of the pandemic in the course of the year. Moreover, gross fixed capital formation is estimated to rise by 9.8%, primarily supported by investment in non-residential construction and secondarily by investment in equipment. Against the adverse global economic conditions which increase uncertainty, the implementation of the RRP investments and reforms together with a growth-friendly fiscal policy and the continued supportive stance by the ECB are expected to sustain investment activity to relatively robust levels. By contrast, public consumption is expected to decline by 1.9% amid high base effects.

On the external front, exports of goods and services are set to continue to rise (5.6%), albeit at a slower pace than expected prior to the energy and geopolitical crisis, assuming more protracted supply chain disruptions and weaker foreign demand due to declining purchasing power. Net exports of services are expected to remain strong and contribute positively to real output growth by 2.2 pp, with tourism receipts assuming to reach 80% of the corresponding receipts of 2019. By contrast, net exports of goods are estimated to have a negative contribution to GDP, due to rising import prices as well as increasing needs for equipment in the context of the implementation of the RRP.

Labour market conditions are expected to continue improving in 2022. Total employment (on a national basis) is estimated to increase by 2% amid a further normalization of economic activity, with employment gains mainly concerning private sector employees and self-employed. Similarly, the LFS unemployment rate is estimated to de-escalate further to 13.9%. Against the backdrop of soaring prices weighing on disposable income, the increase in the minimum wage is set to absorb a part of the impact. As a result, compensation of employees is estimated to increase by 4.1% in 2022, with a positive effect on productivity, the increase of which is estimated at 1.1%. Note that the compensation of employees is expressed in gross terms, including social security contributions; thus reductions in social contributions lead to a higher disposable income.

Estimations for HICP inflation point to a steep increase to 5.6% in the current year, mainly on account of the rising trend in imported energy prices since the end of 2021, further intensified due to the Ukraine war. The longer than prior to the war anticipated supply chain disruptions determine the inflation forecast.

1.3 Medium-term growth prospects 2023-2025

Against the backdrop of elevated uncertainty associated with the duration of the geopolitical crisis and the intensity of the energy crisis, a reform-oriented economic policy agenda and a growth-friendly fiscal policy which addresses simultaneously the need for adjustment to evolving circumstances and the need for ensuring fiscal sustainability, constitute the sine qua non prerequisites for maintaining a robust pace of growth in the medium-term.

In this context, the full deployment of the RRP investments and reforms goes hand in hand with the firm commitment to fiscal consolidation through the achievement of realistic primary surpluses from 2023 onwards and growth-friendly fiscal policy measures (maintaining the reduction in social security contributions by 3 pp and the current policy on the solidarity tax), with the aim of reducing tax burden on labour and corporate operating income and thus stimulating employment and productivity.

Expanding the productive capacity of the Greek economy through the continuation of structural reforms, the efficient use of the RRF resources towards the green and digital transition and the achievement of a sustainable medium-term fiscal position, is crucial in order to meet ongoing and future challenges. It is the way for a shift to a more investment-driven output growth in the medium and long-term, with multiple beneficial effects on potential growth, structural competitiveness, employment and social cohesion that help address legacy stock macroeconomic imbalances. The regain of the investment grade status is set to determine the investments trajectory.

On the basis of the above, the Greek economy is projected to gather strong pace in 2023, with real GDP expanding by 4.8% y-o-y. Final domestic demand through investment and private consumption is expected to remain the main determinant of economic growth, mainly driven by the RRP implementation and new economic policy interventions that reduce tax burden and underpin productivity. Gross fixed capital formation is projected to return to double-digit rates (21.5%), taking also advantage of rebounding confidence and the materialization of postponed investment decisions due to the energy and the geopolitical crisis. In parallel, private consumption is forecast to accelerate (2.9%), also on the back of an expected normalization of energy volatility and a further upturn in employment. By contrast, public consumption is projected to decline by 0.8%. On the external front, exports of goods and services are forecast to grow significantly by 6.2%, amid stronger foreign demand and a recovery of global supply chains, with tourism receipts almost return to the pre-pandemic level. However, as the robust growth of domestic demand fuels imports (5.3%), the contribution of net exports to real GDP is forecast to be marginal. Moreover, the strong labour market performance is set to continue in 2023, on the back of vigorous demand, work opportunities due to the RRP and new economic policy support measures. In this regard, total employment is projected to gain further momentum (1.8%), while unemployment is projected to decline to 12.3%, a rate not seen for more than a decade. On the price front, HICP inflation is expected to moderate to 1.6%, given the high increases of the previous year.

In the medium-term, growth prospects are expected to remain highly positive, on account of the pursued broad economic and institutional transformation of the Greek economy towards a more extrovert, competitive, green and digital economic model. At the end of the period, the economy should have regained most of the losses sustained due to the energy crisis.

In this context, real GDP is projected to grow by an average annual rate of 3.4% in 2024 and 2025, mainly supported by domestic demand, with private consumption and investment contributing cumulatively equally to GDP at the end of the period 2024-2025 (2.9 pp). The favorable labor market dynamics should strengthen further across the medium-term, on the back of continuing robust domestic demand and the RRP implementation, with unemployment de-escalating well below pre-financial crisis levels at the end of 2025 (10.2% versus 12.7% in 2010) and total employment recording an annual growth rate of 1.0% in both years.

The external sector is forecast to contribute 0.4 pp to economic growth on average over the period 2024-2025. This is expected to be mainly the result of the strong performance of services exports to level exceeding the pre-pandemic one, as well as productivity and competitiveness gains underpinned by reforms and the implementation of the RRP.

Inflation is projected to converge close to the monetary policy target of 2% (1.7% on average in the period 2024-2026), on account of further strengthening demand after the end of the energy crisis.

Figure 1: Real GDP growth and contributions

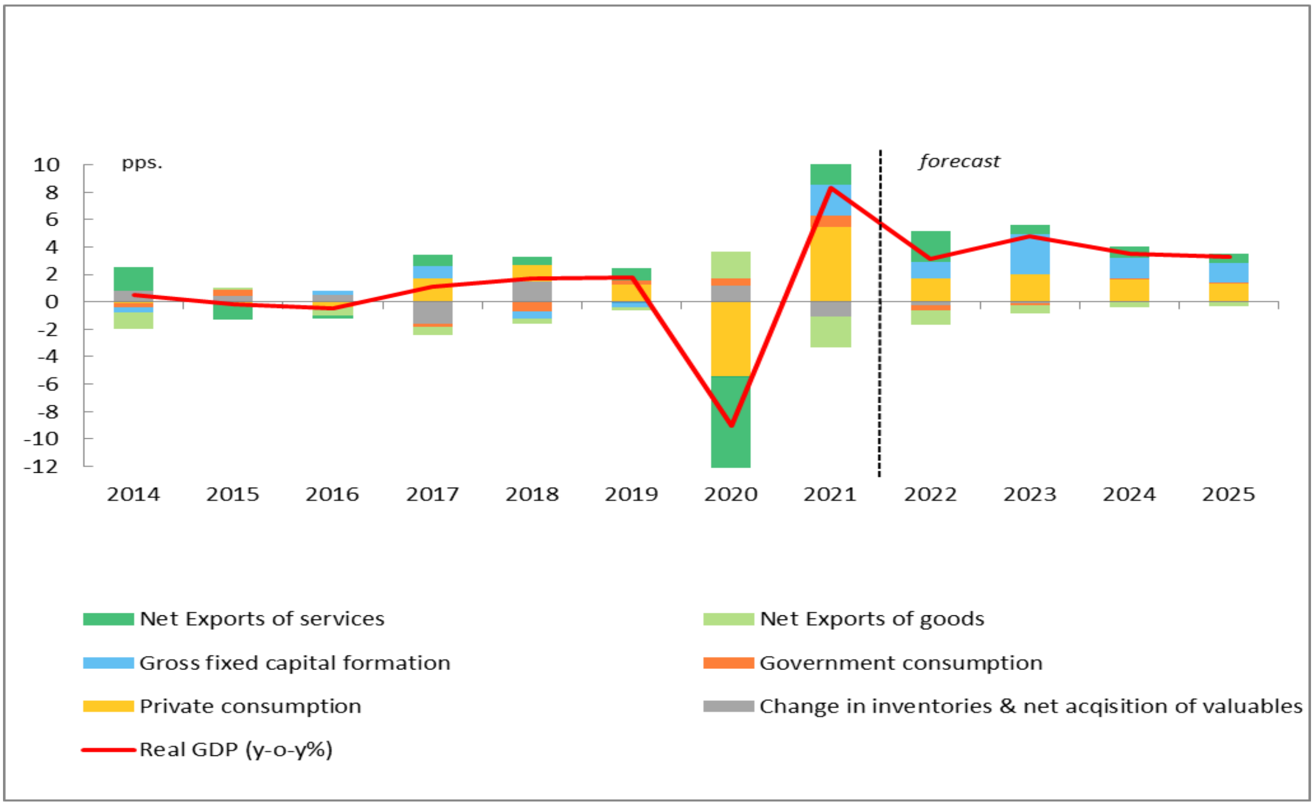


Table 1: Key annual macroeconomic indicators and forecasts (% annual changes, constant prices)

	2020	2021	2022	2023	2024	2025
Real GDP	-9.0	8.3	3.1	4.8	3.5	3.3
Private consumption	-7.9	7.8	2.4	2.9	2.3	2.0
Government consumption	2.6	3.7	-1.9	-0.8	0.3	0.7
Gross fixed capital formation	-0.3	19.6	9.8	21.5	9.2	8.6
Exports of goods and services	-21.5	21.9	5.6	6.2	5.6	4.9
Imports of goods and services	-7.6	16.1	2.9	5.3	4.0	3.7
GDP deflator	-0.8	2.1	4.5	1.6	1.7	1.8
HICP	-1.3	0.6	5.6	1.6	1.7	1.7
Total employment*	-1.2	0.5	2.0	1.8	1.0	1.0
Unemployment rate*	13.9	12.7	12.0	10.4	9.5	8.6
Unemployment rate (LFS)	16.3	14.7	13.9	12.2	11.2	10.2

(*) On a national accounts basis

Source: Annual National Accounts (Hellenic Statistical Authority), estimates/projections of the Ministry of Finance for the years 2022-2025.

2. General Government balance and debt

2.1 Fiscal developments

Fiscal outturn 2021

In 2021, Greece recorded a deficit in the headline balance of -7.4% of GDP, while the primary balance reached -5% of GDP. The fiscal developments of 2021 were decisively influenced by the extended duration of the pandemic crisis, the related containment measures and the necessary targeted measures adopted to mitigate its consequences and to support households and businesses. The significant improvement of the balance, compared to October 2021 Draft Budgetary Plan estimations, is mainly attributed to the higher yield of the tax and social security contributions revenues, driven by the faster than expected economic recovery after the deep recession in 2020.

Fiscal outlook 2022

For 2022 the headline budget balance and the primary balance are estimated at -4.4% and -2.0% of GDP respectively. The adverse effects of the COVID outbreak are expected to be significantly reduced compared to the two previous years, allowing the gradual return to normal activity. Targeted support gradually phases out within the year, thus having significantly lower negative fiscal impact on the general government balance than the previous years. Details on the COVID discretionary measures are presented below.

The expected headline balance is deteriorated by -0.7 pp compared to the Draft Budgetary Plan, despite the strong positive carry over effect on tax and social contribution revenues. Growth is expected to slowdown, though remaining substantial, because of the outbreak of the Ukrainian crisis. To address the subsequent energy & inflation pressures to households & businesses new supportive interventions were adopted, as described below. Moreover, the inflationary pressure is expected to further increase the general government expenditure, leading to the aforementioned balance deterioration compared to the DBP estimations.

Table 2: General government budget balances

General Government budget balances	2021 (%)	2022 (%)	2023 (%)	2024 (%)	2025 (%)
Headline budget balance	-7.4	-4.4	-1.4	-0.4	-0.1
Primary balance	-5.0	-2.0	1.1	2.1	2.3
Structural balance	-6.2	-3.3	-2.4	-2.2	-2.5

Fiscal outlook 2023-2025

In 2023, the general government deficit is expected to reduce significantly to -1.4% of GDP and the primary balance to return to positive ground, reaching +1.1% of GDP. The headline deficit is projected to show a continuous decline in the subsequent years and the primary balance a continuous improvement. It is expected that the general government budget will be almost balanced by the end of the projection period. The positive fiscal developments are based on the expected strong economic growth and the expected release of inflation pressure after the end of the current high energy volatility period.

From 2023 onwards, the fiscal projections include the maintenance of two of the growth-friendly fiscal policy measures adopted during the pandemic crisis, namely the reduction in social security contributions by 3 pp and the current policy on the solidarity tax, stimulating employment and productivity. The two measures are contingent on the compliance to the rules of the Stability and Growth Pact, as these are to be formed for the following years.

The table below summarizes the current fiscal estimations for the period 2022-2025, broken down by main components of revenues and expenditures. The structural budget balance is presented in table 7 of the Annex.

Table 3: General government budgetary prospects

	2021 (Levels)	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)
Net lending (EDP B.9) by sub-sector						
1. General government	-13,589	-7.4	-4.4	-1.4	-0.4	-0.1
2. Central government	-15,020	-8.2	-4.9	-1.8	-1.0	-0.7
3. State government						
4. Local government	-169	-0.1	-0.1	-0.2	-0.1	-0.1
5. Social security funds	1,600	0.9	0.6	0.6	0.7	0.7
General government (S13)						
6. Total revenue	90,389	49.4	48.5	46.6	45.7	44.4
7. Total expenditure	103,978	56.9	53.0	47.9	46.1	44.5
8. Net lending/borrowing	-13,589	-7.4	-4.4	-1.4	-0.4	-0.1
9. Interest expenditure	4,500	2.5	2.4	2.5	2.5	2.4
10. Primary balance	-9,089	-5.0	-2.0	1.1	2.1	2.3
11. One-off and other temporary measures	1,125	0.6	-0.4	0.0	0.0	0.0
Selected components of revenue						
12. Total taxes (12=12a+12b+12c)	47,498	26.0	26.4	25.5	25.2	24.9
12a. Taxes on production and imports	30,418	16.6	17.1	16.3	15.9	15.6
12b. Current taxes on income, wealth, etc	16,852	9.2	9.2	9.1	9.2	9.2
12c. Capital taxes	228	0.1	0.1	0.1	0.1	0.1
13. Social contributions	27,270	14.9	13.6	12.8	12.4	12
14. Property income	672	0.4	0.2	0.2	0.2	0.2
15. Other	14,949	8.2	8.3	8.0	7.8	7.4
16=6. Total revenue	90,389	49.4	48.5	46.6	45.7	44.4
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995)	74,768	40.9	40.0	38.3	37.6	36.9
Selected components of expenditure						
17. Compensation of employees + intermediate consumption	32,751	17.9	17.5	15.8	14.9	14.2
17a. Compensation of employees	22,522	12.3	11.5	10.7	10.2	9.8
17b. Intermediate consumption	10,229	5.6	6.0	5.1	4.7	4.4
18. Social payments (18=18a+18b)	40,979	22.4	21.2	20.4	19.4	18.7
of which Unemployment benefits	1,333	0.7	0.7	0.6	0.5	0.5
18a. Social transfers in kind supplied via market producers	5,303	2.9	2.3	2.2	2.2	2.2
18b. Social transfers other than in kind	35,676	19.5	18.9	18.2	17.2	16.5
19=9. Interest expenditure	4,500	2.5	2.4	2.5	2.5	2.4
20. Subsidies	8,501	4.6	2.0	1.3	1.3	1.2
21. Gross fixed capital formation	6,636	3.6	5.5	4.9	5.1	5.0
22. Capital transfers	6,980	3.8	1.5	1.2	1.1	1.2
23. Other	3,631	2.0	2.9	1.9	1.8	1.8
24=7. Total expenditure	103,978	56.9	53.0	47.9	46.1	44.5
p.m.: Government consumption (nominal)						

COVID measures

As of March 2020, Greece has adopted a wide set of measures aiming at containing the impact of the unprecedented Covid-19 pandemic crisis to the Greek economy and society. During 2021, the new waves of Covid-19 infections, as well as the outbreak of high contagious variants, triggered the ongoing implementation of Covid-19 measures, aiming mainly at sustaining the disposable income of those most affected by the pandemic and strengthening the health services sector, which had to address large number of hospitalizations. In 2022, the Covid-19 measures supporting income and employment are gradually phasing out. The -almost complete- abolition of covid-19 related measures is projected from 2023 onwards, reflecting enhanced adaptability to the pandemic conditions.

In 2021, the total cost of measures amounted to 16 billion € or 8.8 % of GDP, of which 15.1 billion € or 8.3 % of GDP pertained to fiscal measures and 916 million € or 0.5% of GDP pertained to liquidity measures that had thus no budgetary impact.[1] As regards fiscal measures, on the revenue side, they reached 3.5 billion € or 1.9 % of GDP and include, inter alia, reductions of the advance payments of personal and corporate income taxes for businesses, reduction by 3 pp of the social security contributions of wage earners in the private sector, suspension of solidarity tax in the private sector and reduced rates of VAT for targeted goods and services.

On the expenditure side, in 2021, the total cost of measures adopted by the Greek government was 11.6 billion € or 6.3 % of GDP and include, inter alia, the business financing in the form of a repayable advance payment, the special allowance allocated to employees, freelancers, individual businesses and enterprises, the coverage of the social security contributions of employees, the short term employment scheme, the subsidies for borrowers (GEFYRA I & II programs) and working capital grant programs for several sectors.

Contrary to 2021, in 2022, the Covid-19 policy mixture is based slightly more on revenue than expenditure measures. The cost of revenue measures is estimated at 2.2 billion € or 1.1 % of GDP and the cost of expenditure measures at 1.8 billion € or 0.9 % of GDP, as many expenditure measures introduced in the previous years phased out, resulting in the overall decrease of the magnitude of measures, whereas others, such as the healthcare supporting measures, still remain in force.

[1] For a full description of covid-19 related measures taken in 2021, see ''Draft Budgetary Plan of Greece 2022", Athens, October 2021, p.26-27.

Table 4: Discretionary measures to address the consequences of the COVID-19 pandemic

	List of interventions	2021		2022	
		mil. euros total	GDP %	mil. euros total	GDP %
A	**Interventions on Revenues**	**-3,510**	**-1.9**	**-2,209**	**-1.1**
1	Reduction of VAT to transports, coffee & beverages, cinema tickets, gyms, dance schools and tourism package, suspension of cable TV fee	-259	-0.1	-458	-0.2
2	Reduction of advanced CIT and PIT payment for enterprises	-1,100	-0.6	0	0.0
3	Reduction by 3 p.u. of the SSCs of wage earners in the private sector	-816	-0.4	-849	-0.4
4	Suspenion of solidarity tax in the private sector	-680	-0.4	-732	-0.4
5	Other measures targeted to employees / enterprises / taxpayers /property owners inflicted by the pandemic	-655	-0.4	-170	-0.1
B	**Interventions on Expenditure**	**-11,583**	**-6.3**	**-1,843**	**-0.9**
1	Business financing in the form of a repayable advance payment. (non-repayable part)	-2,023	-1.1	0	0.0
2	Special allowance for employees of firms whose labour contract were suspended,self employed, freelancers, individual businesses and enterprises with up to 20 employees affected by the coronavirus crisis (incl.Easter & Christmas bonuses)	-1,926	-1.1	-29	0.0
3	Measures supporting unemployed (regular, seasonal, scientists)	-261	-0.1	0	0.0
4	First residence subsidy cost for borrowers & SMEs (GEFYRA I,II) & interest payment on performing loans of SMEs affected by the coronavirus crisis paid by the state	-617	-0.3	-77	0.0
5	COVID Healthcare expenditures, including equipment, consumables, vaccination cost, massive rapid test program, self-tests for students, network for covid-tests in houses	-1,004	-0.5	-710	-0.4
6	COVID expenditures of other ministries and other measures (incl. compansation scheme for fixed expenses)	-556	-0.3	-164	-0.1
7	Coverage of the SSCs of employees of firms affected by the coronavirus crisis, whose labour contracts were suspended	-1,121	-0.6	-31	0.0
8	Compensation to property owners that receive reduced rent	-728	-0.4	-39	0.0
9	Non-refundable grant to small & micro enterprises via Local Governments	-741	-0.4	-178	-0.1
10	Non-repayment of a percentage of refundable advance on basis of turnover reduction and loss	-1,093	-0.6	0	0.0
11	Working capital grant program for restaurants, hotels, gyms and playgrounds, compensation to fishing ships, conferences, exhibitions, events, catering, nightclubs and dance schools	-494	-0.3	-87	0.0
12	Other measures aiming to support employment (including short-term employment scheme & hirings subsidy program)	-328	-0.2	-199	-0.1
13	Measure supporting the primary,the culture & the transport sector of the economy	-356	-0.2	-129	-0.1
14	Hirings for public transports, of temporary healthcare personnel, bonus to medical personnel	-335	-0.2	-200	-0.1
C	**Liquidity interventions**	**-916**	**-0.4**	**0**	**0.0**
1	New guarantee program for very small enterprises	-220	-0.1	0	0.0
2	Liquidity intervention in the form of a repayable advance payment	-696	-0.4	0	0.0
	Total Fiscal Cost of Interventions (A+B)	**-15,093**	**-8.3**	**-4,052**	**-2.1**
	Total Cost of Interventions (A+B+C)	**-16,009**	**-8.8**	**-4,052**	**-2.1**

Energy and inflation measures

The inflationary pressures at the end of 2021, mainly driven by energy prices, were sharply accelerated in 2022 after the Ukrainian crisis. In this context, interventions to mitigate the energy and inflation pressures to households and businesses were adopted.

A new electricity subsidy scheme was introduced that, along with the natural gas consumption subsidy, amounts to 630 mil. € for 2021 and is currently expected to reach 3.6 billion € for 2022. The scheme covers a significant part of the energy increases of households and enterprises and is closely monitored and recalibrated every month. It is mainly financed by the increased revenues of the emission allowances trading system and by the surplus of the renewable energy account.

To alleviate the impact of the increased inflation on the vulnerable households, targeted financial support was given in December 2021 and in April 2022 to the elderly uninsured, the low income pensioners, the beneficiaries of disability allowances, of the minimum required income and of child benefits, amounting to 0.1% and 0.2% of GDP for 2021 and 2022 respectively.

Additional targeted measures with fiscal impact 0.2% of GDP in total for 2022 were also adopted, including, inter alia, the increase of the heating benefit, fuel compensation to households via a prepaid card and for diesel oil, the return of the special levy on diesel for farmers and subsidies for increased foodstuff costs.

Note that supplementary allocations of € 2 bn euro were voted for the ordinary budget on April 2022, so as to face the increased expenses related to the energy and inflation crisis. Part of this budget is allocated to measures already adopted (see Table 5) and the rest is intended to cover increases of General Government expenses as well as potential additional measures until the end of the year.

Table 5: Interventions to address the energy & inflation pressures to households & businesses

List of interventions	2021		2022	
	mil. euros total	GDP %	mil. euros total	GDP %
Subsidies for electricity & natural gas consumption funded by the Green Transition Fund	-630	-0.3	-3,614	-1.8
Increase of the heating benefit allowance	-90	0.0	-90	0.0
Increased allowances to vulnerable citizens (low income pensioners, non-insured elderlies, minimum income beneficiaries, disability & child benefits)	-271	-0.1	-324	-0.2
Return of the special levy on Diesel for farmers	0	0.0	-60	0.0
Prepaid card for fuels to households	0	0.0	-130	-0.1
Other (mainly subsidies)	0	0.0	-118	-0.1
Total Cost of Interventions	**-991**	**-0.5**	**-4,336**	**-2.2**

2.2 Debt developments

The general government debt is estimated at €353,390 million or 193.3% of GDP at the end of 2021, vs. €341,133 million or 206.3% of GDP in 2020. For the end of 2022, the general government debt is forecasted at €355,000 million or 180.2% of GDP, i.e. reduced by 13.1 pp compared to 2021.

At the beginning of 2022, the Hellenic Republic engaged its successful presence in the international capital markets by launching a new syndicated 10-year benchmark bond in January, nominal €3.0 bn, at 1.836% yield. The issue was oversubscribed during the book building procedure with its offers exceeding the €31 bn and was mainly acquired by end investors.

Meanwhile, the maintenance of the high level of cash reserves, nearly €38 bn at the end of March 2022, contributes substantially to achieving low funding costs and safeguards the meeting of medium term debt obligations. Within the upcoming years, cash reserves will be reduced gradually targeting to the repayment of the outstanding amount of public debt, following the efforts of the Hellenic Republic returning back to normality, having continuous access to the capital markets by achieving, at the same time, the investment grade status.

The consistent issuance activity since 2018 has gradually rebuilt the Hellenic Republic's yield curve by filling the gaps at the most significant maturities, while providing volume and liquidity within the whole spectrum of the Greek government bonds.

The favorable performance of Greek government bonds in the secondary market since March 2020 was further encouraged by European Central Bank's Pandemic Emergency Purchase Programme –PEPP, which was concluded at the end of March of 2022. The maturing principal payments from securities purchased under the PEPP will be reinvested until, at least, the end of 2024. Furthermore, ECB has announced the extension of the waiver for the Greek bonds also until, at least, the end of 2024.

Very positive signal to the investors' community had the full repayment of IMF loans for the amount of €1.9 bn, which was concluded at the beginning of April 2022. Hence, for first time since 2010, there is no outstanding debt obligation to the IMF. Furthermore, the early repayment of €2.6bn of GLF loans that mature on 2023 is expected to take place on December of this year, once all the national procedures of the EU lending members have been concluded.

In addition to the previous year financing, a considerable element constitute the loans of NGEU programme, of which an amount of €1.8 bn has already been disbursed in April 2022. NGEU loans have significant contribution to the retention of the weighted average maturity of the Greek public debt, close to twenty years, as well to the preservation of the low and fixed servicing cost of the total debt portfolio.

Table 6: General Government debt development

	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)
1. Gross debt	193.3	180.2	168.6	155.2	146.5
2. Change in gross debt ratio	-13.1	-13.1	-11.6	-13.3	-8.8
Contributions to changes in gross debt					
3. Primary balance	-5.0	-2.0	1.1	2.1	2.3
4. Interest expenditure	-2.5	-2.4	-2.5	-2.5	-2.4
5. Stock-flow adjustment	20.5	17.6	12.9	13.8	8.9
of which:					
- Differences between cash and accruals	1.9	-0.2	-0.5	-0.3	0.8
- Net accumulation of financial assets	-2.2	3.7	2.4	4.5	0.4
- privatisation proceeds	0.2	0.3	0.5	1.0	0.0
- Valuation effects and other	20.8	14.0	11.0	9.5	7.7
p.m.: Implicit interest rate on debt	1.3	1.3	1.5	1.6	1.6
Other relevant variables					
6. Liquid financial assets					
7. Net financial debt (7=1-6)					
8. Debt amortization (existing bonds) since the end of the previous year	5.0	2.2	2.1	1.7	1.3
9. Percentage of debt denominated in foreign currency	0.6	0.0	0.0	0.0	0.0
10. Average maturity	18.7	19.0	20.0	20.0	20.0

2.3 The National Recovery and Resilience Plan

The Greek National Recovery and Resilience Plan (NRRP), “Greece 2.0”, aspires to facilitate a major shift in the Greek economic model and institutional framework. It includes many ambitious reforms and investments, steering the Greek economy towards a permanent, dynamic and resilient growth model.

“Greece 2.0” goes beyond economic recovery by introducing fundamental economic and social reforms, which will affect - apart from economic activity - also technologies, attitudes and institutions.

In particular, the plan intends to facilitate the decarbonisation of the Greek economy, modernize and digitalise public administration by improving tax administration and justice systems, with less bureaucratic digitalised state, a much reduced shadow economy with a more growth-friendly tax system and a more resilient social protection network.

Also, the reforms and investments in the plan will help Greece become more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions.

The resources included in “Greece 2.0” for the period 2021-2026 currently amount before the foreseen recalculation of the envelope to 30.5 bn €, out of which grants are estimated at 17.8 bn € and loans up to 12.7 bn €. “Greece 2.0” envisages that the total amount of investment resources which will be mobilized by the private sector will approach 59 bn €; that is double the size of the total Recovery and Resilience Fund (RRF) envelope.

This financing will support the implementation of the crucial investment and reform measures outlined in Greece's recovery and resilience plan. It will play a key role in enabling Greece to emerge stronger from the COVID-19 pandemic.

"Greece 2.0" comprises of four main pillars, involving the following budgets and resources mobilization:

- Green Transition: budgeted at 6.2 bn € (expected to mobilize a total of 11.6 bn €).
- Digital Transition: budgeted at 2.2 bn € (expected to mobilize a total of 2.4 bn €).
- Employment, Skills, Social Cohesion (Health, Education, Social Protection): budgeted at 5.2 bn € (expected to mobilize a total of 5.3 bn €).
- Private investment and transformation of the economy: budgeted at 4.8 bn € (expected to mobilize a total of 8.8 bn €).

By the end of March 2022, one hundred and ninety five (195) projects and subprojects, with a total budget of 8.1 bn €, have already been approved and included in the RRF grants programmes.

It is worth mentioning, that on April 8th, 2022 Greece received the first payment for 2022 from the Recovery and Resilience Fund amounting to 3.6 bn €, after the fulfillment of the fifteen (15) milestones.

Table 7: RRF impact on programme's projections - GRANTS

	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)	2026 (% of GDP)
Revenue from RRF grants						
1. RRF GRANTS as included in the revenue projections	0.2	1.6	1.7	1.6	1.5	1.5
2. Cash disbursements of RRF GRANTS from EU	1.3	1.7	1.6	1.6	1.5	0.7
Expenditure financed by RRF grants						
3.TOTAL CURRENT EXPENDITURE	0.1	0.2	0.4	0.3	0.3	0.0
of which:						
- Compensation of employees	0.0	0.0	0.0	0.0	0.0	0.0
- Intermediate consumption	0.0	0.0	0.1	0.0	0.0	0.0
- Social Payments	0.1	0.1	0.2	0.1	0.1	0.0
- Interest expenditure						
- Subsidies, payable	0.0	0.1	0.2	0.1	0.1	0.0
- Current transfers						
4. TOTAL CAPITAL EXPENDITURE	0.1	1.4	1.3	1.3	1.3	1.5
of which:						
- Gross fixed capital formation	0.1	0.9	0.9	1.0	0.8	1.1
- Capital transfers	0.0	0.5	0.4	0.4	0.5	0.5
Other costs financed by RRF grants						
5. Reduction in tax revenue						
6. Other costs with impact on revenue						
7. Financial transactions						

The Greek Plan envisages by using RRF loans amounting to 12.7 bn € to mobilize investment resources of 30.9 bn €, co-financing projects falling under the following 5 pillars:

- Green transition (invest in green economy and renewable energy sources).
- Digital transformation (preparing the transition to the new digital era).
- Extroversion (business beyond borders).
- Innovation, research and developments.
- Economies of scale through partnerships, joint ventures, acquisitions and mergers.

The financing of private investments from the RRF loans envelope will be implemented through three distinctive funding channels: (a) International Financial Institutions, including the EIB and the EBRD, (b) commercial banks, Greek but also international ones and (c) an equity platform instrument operated by the Hellenic Development Bank (HDB).

Table 8: RRF impact on programme's projections - LOANS

	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)	2026 (% of GDP)	2027 (% of GDP)
Cash flow from RRF loans projected in the programme							
1. Disbursements of RRF LOANS from EU	0.9	0.9	0.9	0.8	0.8	1.5	
2. Repayments of RRF LOANS to EU	0.0	0.0	0.0	0.0	0.0	0.0	
Expenditure financed by RRF loans							
3.TOTAL CURRENT EXPENDITURE							
of which:							
- Compensation of employees							
- Intermediate consumption							
- Social Payments							
- Interest expenditure							
- Subsidies, payable							
- Current transfers							
4. TOTAL CAPITAL EXPENDITURE							
of which:							
- Gross fixed capital formation							
- Capital transfers							
Other costs financed by RRF loans							
5. Reduction in tax revenue							
6. Other costs with impact on revenue							
7. Financial transactions	0.0	1.3	0.9	0.8	0.8	1.1	0.7

3. Sensitivity analysis

The baseline scenario forecasts a full recovery in 2022 with real GDP rising above pre-pandemic levels at a rate marginally higher than projected in the 2022 Budget. Output growth is projected at 3.1%, on the back of the larger than expected resurgence of demand in 2021 that is carried over to 2022, and the kick-off of the Recovery and Resilience Plan (RRP) implementation. In 2023, real GDP growth is projected to accelerate to 4.8% due to new economic policy measures that reduce the tax burden on households and alleviate labour costs. In the medium-term, growth prospects should remain high at a 3.4% average annual rate, amid further gains from the implementation of the RRP and a full recovery of the tourism sector.

Although fairly dynamic, the output growth rates of the Greek economy in the short-term are dampened by the impact of the international energy price surge that started in the second half of 2021 and escalated in 2022, after the Russian invasion in Ukraine. The baseline estimate for the impact of the price surge due to the war on real GDP is nearly -1.4% for 2022 and -0.3% for 2023, excluding any compensating measures. This reflects the assumption of an energy price hike of greater intensity and duration in 2022.

Intensity-wise, while oil prices are a key external assumption in any macroeconomic forecast, in the current conjuncture the energy price hike is expected to weigh more on real economic activity as natural gas and electricity are more heavily affected. This implies a higher impact on headline inflation through a more generalised increase in production and operational cost.

Duration-wise, the rising energy inflation in 2021 was primarily attributed to supply-demand imbalances due to pandemic-related supply chain disruptions, which were meant to be temporary. Since then, other energy transition factors that potentially drive international oil and gas prices higher on a more permanent basis have come under scrutiny. Meanwhile, the Ukraine war and the consequent sanctions against Russia have exacerbated the international oil and gas price hike and raised prices on Russian exports of basic inputs of the global supply chain (such as wheat and metals). This weighs on the macroeconomic outlook across economies, with greater downside risks for European economies due to the larger energy dependence on Russia. Moreover, potential disruptions on trade from eastern countries due to intense COVID-19 restrictions, is an additional risk that could affect inflation.

The transmission channels of the higher inflationary pressures include dampening effects on the disposable income and spending of households, as well as increased production and operational costs that limit the operating surplus of non-energy corporations and slow down labour market growth. Moreover, higher uncertainty leads to a potential postponement of investment decisions and a reassessment of saving decisions for precautionary reasons. Finally, international trade and tourism are negatively affected, through higher transport costs and weaker disposable income.

Against this backdrop, the unpredictable course of the war in Ukraine and its implications for energy and commodity prices, render inflation at the top of the list of risks for output growth, both in the short and medium term, tilting the balance of external risks well to the downside.

The sensitivity analysis attempts to examine the economic impact from changes in the headline inflation of 2022 versus the baseline, through two alternative scenarios:

1. A steeper and longer price hike in oil, gas and commodities within 2022, that results in higher inflation by 2% for the current year (Scenario A)
2. A larger and faster smoothing of the price hike in oil, gas and commodities within 2022, resulting in lower inflation by 1% for the current year (Scenario B).

Table 9: Sensitivity analysis results - macroeconomic variables (change in growth rates versus the baseline)

Scenario A: Higher inflation by 2% in the current year				
	2022	**2023**	**2024**	**2025**
Real GDP	-1.0	-0.1	0.0	0.0
Private consumption	-1.3	-0.3	0.0	0.0
Investment	-2.2	-0.8	0.0	0.0
Exports of goods and services	-1.7	-0.7	0.0	0.0
Imports of goods and services	-2.3	-1.3	0.0	0.0
Employment	-0.3	-0.1	0.0	0.0
Wage and salary earners	-0.3	-0.1	0.0	0.0
Unemployment (LFS) % labor force	0.3	0.3	0.3	0.3
Compensation of employees	-0.3	-0.1	0.0	0.0
GDP deflator	*1.4*	*0.5*	*0.1*	0.0
HICP	*2.0*	*0.3*	*0.2*	*0.1*
Scenario B: Lower inflation by 1% in the current year				
	2022	**2023**	**2024**	**2025**
Real GDP	0.5	0.1	0.0	0.0
Private consumption	0.6	0.1	0.0	0.0
Investment	1.1	0.4	0.0	0.0
Exports of goods and services	0.8	0.3	0.0	0.0
Imports of goods and services	1.1	0.6	0.0	0.0
Employment	0.1	0.0	0.0	0.0
Wage and salary earners	0.1	0.0	0.0	0.0
Unemployment (LFS) % labor force	-0.1	-0.1	-0.1	-0.1
Compensation of employees	0.1	0.0	0.0	0.0
GDP deflator	*-0.7*	*-0.1*	0.0	0.0
HICP	*-1.0*	*-0.1*	0.0	0.0

Table 9 presents the results of the sensitivity analysis for the main macroeconomic variables, showing the deviation of the annual growth rates under each alternative scenario with regard to the baseline scenario of the Stability Programme.

The fiscal implications of the alternative scenarios are presented in Table 10. The sensitivity of the headline balance was calculated by employing elasticities used in the context of the European fiscal surveillance framework. Specifically, the value of the budget balance semi-elasticity has been used, in line with the calculations presented in the 2018 Report on Public Finances in EMU. For Greece, this semi-elasticity has been calculated at 0.524 implying a rise (decline) in the budget balance by 0.5% of GDP as a result of an increase (decrease) of GDP by 1%.

It is straightforward that a further rise in inflation in the current year will have a recessionary impact on the economy, through the channels mentioned above, while a faster normalisation will allow for larger GDP growth tailwinds, on the back of the lower burden on the budgets of households and corporations and the relatively lower level of uncertainty. At the same time, the fiscal implications of the two scenarios seem to move to the opposite direction, following rather the course of nominal GDP, although this result is due to the mechanical methodology used. The effects on the key macroeconomic variables and fiscal variables per alternative scenario are further discussed below.

Table 10: Sensitivity analysis - fiscal implications of alternative scenarios

Scenario A: Higher inflation by 2% in the current year	**2021 (%)**	**2022 (%)**	**2023 (%)**	**2024 (%)**	**2025 (%)**
Headline budget balance	-7.43	-4.25	-0.99	-0.01	0.33
Difference to stability programme scenario	*0.00*	*0.19*	*0.36*	*0.43*	*0.45*
Primary balance	-4.97	-1.86	1.51	2.49	2.72
Cyclically adjusted balance	-5.60	-3.52	-1.99	-1.79	-2.02
Structural balance	-6.20	-3.12	-1.99	-1.79	-2.02
Scenario B: Lower inflation by 1% in the current year	**2021 (%)**	**2022 (%)**	**2023 (%)**	**2024 (%)**	**2025 (%)**
Headline budget balance	-7.43	-4.52	-1.47	-0.56	-0.25
Difference to stability programme scenario	*0.00*	*-0.08*	*-0.12*	*-0.13*	*-0.13*
Primary balance	-4.97	-2.13	1.03	1.94	2.14
Cyclically adjusted balance	-5.60	-3.79	-2.47	-2.34	-2.61
Structural balance	-6.20	-3.39	-2.47	-2.34	-2.61

Scenario A: Response to a further price acceleration in 2022

A further and longer rise in international energy and commodity prices is assumed in the course of 2022 (16% for oil and 40% for gas prices), resulting in higher inflation by 2.0% in the current year. The shock is limited to 2022, however the additional price surge is reflected in higher price levels in the following years versus the baseline due to higher production costs and commodity prices. This implies an average inflation rate still lower but close to the monetary policy target at the end of the forecasting period.

Relative to the baseline forecast, the shock would dampen real economic growth in Greece mainly in 2022, by 1 percentage point with respect to the baseline scenario. The impact would be transmitted primarily through the disposable income of households and consumer spending, followed by losses of real exports due to a weaker foreign demand and investment growth hampered by higher operational costs and surging uncertainty. Real compensation per employee would bear more losses by 1.8% within the current year, labour productivity per employee would deteriorate by 0.7% due to a slower-paced employment growth, and unit labour cost would rise accordingly. The trade balance would turn more negative in 2022 due to the further deterioration in the fuel balance. The unemployment rate would also tighten relative to the baseline, by 0.3% at the end of the forecasting period.

The impact of the higher inflation in 2022 on the fiscal balance is positive as the higher price level shores up nominal GDP and revenues, overcoming the negative impact of inflation on real consumption and investment spending. Moreover, the temporary nature of the shock in inflation leads to an accumulation of the positive impact on the balance, especially as consumption and investment quickly approach their baseline values from 2023 onwards. On the other hand, this analysis does not take into account potential additional fiscal measures that would be required under this scenario, to limit the effects of higher inflation on disposable income.

Scenario B: Response to a lower price acceleration in 2022

A smoother and less lengthy rise in international energy and commodity prices is assumed for 2022 (-14% for oil and -20% for gas prices) resulting in lower inflation by 1.0% in the current year. The oil price outlook is smoothened in 2023 versus the baseline so as not to surpass the level of 2022, and thenceforth converges to the baseline assumption.

Under this scenario, the milder inflationary pressures would leave room for higher output growth in 2022. Gains of 0.5 percentage point of real GDP would stem from the disposable income of households, which would be strengthened compared to the baseline, from higher exports on the back of less subdued foreign demand, and from lower uncertainty allowing for the materialisation of more investment plans. Compensation of employees would range higher by 0.1% in 2022, due to higher employment growth, while real wage losses per employee should be lower by 0.9% versus the baseline. Accordingly, gross operating surplus/mixed income would rise higher by 0.7% in 2022, amid reduced unit labour cost in the economy by 0.3%. Real imports should also grow faster in the short-term, linked to the more robust domestic demand. The trade balance would turn less negative in 2022 due to higher net exports of fuels. Unemployment would range marginally lower than in the baseline scenario at the end of the forecasting period, on the back of the sustained real GDP gains.

Similarly to the first alternative scenario, the fiscal implications are dominated by the path of nominal GDP, which is actually lower compared to the baseline in 2022 as the impact of the lower deflator is stronger than the impact of real growth. The deviation from the stability programme scenario also accumulates over the medium-term, albeit to a lesser extent, with both the headline and the primary balance being lower compared by just 0.13% by the end of the forecast.

4. Long-term sustainability of public finances

4.1 Main assumptions and background

The present chapter analyses the impact of ageing on public finances over a long-term horizon (2019-2070) based on the projection results for the evolution of expenditure of ageing related items (pensions health care, long-term care and education) of the 2021 Ageing Report (AR) (*published in May 2021*).

Specifically, the results on the cost of ageing for the period 2019–2070 are based on:

- the current pension legislation (*cut-off date July 2020*),
- the most recent EUROSTAT's demographic projections (EUROPO2019) and
- the macroeconomic assumptions endorsed by the Ageing Working Group (AWG) of EU's Economic Policy Committee (EPC) for the 2021 AR,
- the long-term projections on age-related expenditure in the areas of health care, long-term care and education that have been prepared by the EPC's AWG in the context of the 2021 AR.

4.1.1 Key elements of the pension system

As far as pension expenditure is concerned, the projections include the main and auxiliary pension provision of the public pension system, as well as means-tested benefits (uninsured elderly and social solidarity grant provision which totally phased out in 2020).

Key elements of recent pension reforms introduced by Laws 4387/2016, 4670/2020 and 4826/2021:

- All social insurance main pension funds are integrated into one single social insurance pension fund (e-EFKA) with common governance, administration and accounting framework.
- Auxiliary pension fund (former ETEAEP) is also integrated into e-EFKA as an independent financial sector. Since January 2022, a new auxiliary pension fund (TEKA), along with a Funded Defined Contribution (FDC) Scheme has been introduced for the newcomers to the labour market and those aged under 35.
- Harmonized contribution rates and pension benefit rules.
- Already accrued rights of both pensioners (except farmers) and insured (for farmers a 15-year transition period is provided) are affected by applying the unified pension benefit rules on those as well.

The key elements of the **main pension system** (as it has been formed by the provisions of laws 4336/2015, 4387/2016, and 4670/2020) are the following:

1. The full contributory period is set at 40 years.

2. Unified statutory retirement ages are set for all at 67 years. The minimum age for retirement is set initially at 62, informed by life expectancy dynamics.

3. The main pension amount consists of two components, namely the national pension and the contributory pension. The national pension is a flat-rate pension which is granted only if at least 15 years of contributions are accrued (for old age pensions). It is set at €384 per month for at least 20 years of contributions (payable 12 times a year). The national pension is reduced: by 2% for each year of contributions below 20 years, between 19 and 15 years (reduces to 345.60€ for 15 years). The cost of national pension is financed by the state.

4. The contributory pension is the amount of pension which is in proportion to the amount of insurance contributions pertaining to the years of insurance. The contributory pension amount aims at rewarding insured people who choose to prolong their working lives. Law 4387/2016 introduced marginally applied accrual rates for the contributory part of the pension that depend only on the length of the career (for all pension categories), with the same profile for all workers. Law 4670/2020 introduced new scale of accrual rates for main pensions, effective from 1.10.2019 onwards, actually increasing the accrual rates over 30 years of contributions. The new scale is applied to the new pensions, as well as the existing ones for the calculation of personal differences with effect from 1.10.2020 onwards. This amendment was adopted due to Council of State ruling.

5. For calculating the contributory component of the pension, the pensionable earnings are derived taking into account the average monthly earnings of the insured for the whole of his insurance life (starting from 2002 onwards). The maximum and minimum pensionable earnings for salaried insured with full employment are 6,500 € and 650 € respectively.

6. For the period up to 2024, pensionable earnings are valorized by the change in the average annual general consumer price index (CPI) published by Hellenic Statistical Authority (ELSTAT) while from 2025 onwards pensionable earnings are valorized by annual change in wages.

7. Under law 4387/2016, all social insurance contribution rates were gradually harmonized with those of IKA-ETAM (20%). Yet, law 4670/2020 introduced insurance classes for self-employed and farmers, effective from 2020 onwards due to Council of State ruling. For all self-employed contributions range from 155 to 500€. For farmers (ex. OGA) contributions range from 87-280€ in 2020. The insured can freely choose the class to be insured every year. Insurance classes' amounts are adjusted in 2023 and 2024 by CPI and from 2025 onwards by the annual change in wages.

8. There is a 15-years transition period for new retirees of OGA, during which a pro-rata pension is granted.

9. Pension indexation is fully linked to a uniform adjustment index which cannot exceed CPI. In particular, the index is equal to the minimum of CPI and the average of CPI and GDP growth [min (50% GDP growth +50% CPI, CPI)]. Indexation is not applied up to 2022.

10. A monthly maximum pension amount of 4,608€ (12 times the monthly national pension amount) was introduced by law 4623/2019.

11. For those with less than 15 years of contributions (elderly uninsured), and thus not eligible for pension, a flat rate means-tested benefit (360€) is provided which constitutes an important social safety net.

12. All main pensions granted up to the entry into force of the law 4387/2016 were recalibrated according to the new system's rules. Each pension consists of the following components: a) National pension, b) Contributory pension according to the new rules and c) Personal difference, as the difference between the total pension amount according to the old and new rules. Personal differences that correspond to pensions with lower pension amount according to the new rules are offset with future pension indexation starting from 2023 onwards. Personal differences that correspond to pensions with higher pension amount according to the new rules are granted in 5 installments starting from 2019 onwards.

Since January 2022, the auxiliary pension system consists of two separate schemes: the old **Notional Defined Contributions (NDC) Scheme** and a new **Funded Defined Contribution (FDC) Scheme**.

A. The key elements of the NDC Scheme are the following:

1. The auxiliary pension provision works in parallel to the main pension provision and is mandatory for most people. Auxiliary pension is financed separately from the main pension from both employer and employee, without any state contribution. It is awarded under the prerequisite of receiving a main pension.

2. By law 4052/2012, a pay-as-you-go (PAYG) notional defined contribution system (NDC) was introduced, replacing the old defined benefit system, with the following elements:

(i) The notional rate of return, which is the annual growth in pensionable earnings (contributory earnings) of all insured with the Fund, applied for the accumulation of contributions.
(ii) The life expectancy at retirement, applied for the calculation of the amount of pension.
(iii) A balancing mechanism applied to guarantee the system's financial stability (no pension indexation in case of deficit).

3. The amount of pension paid is entirely linked to the pensioner's age. In order to calculate the amount of old-age pension, a whole life annuity is used, taking into account the transfer of pension rights to assignees (survivors). Disability pensions are calculated using the proper age annuity for each case. Whole life annuities are recalculated every three years to take into account changes in life expectancy.

4. For those insured before 1.1.2014, the new system is implemented pro rata starting on 1.1.2015 and they are awarded a pension which consists of two components:

(i) The first component is using the arrangements of the defined benefit system (accrual rate 0.45% and pensionable earnings calculated according to the method of the main pension) for as many years as the insured worked before 1.1.2015.

(ii) The second component is using the NDC arrangements for as many years as the insured worked after 1.1.2015.

5. All auxiliary pensions granted up to 31.12.2014 are recalibrated according to the new system's rules. Each pension consists of the following components:

(i) Contributory pension according to the new rules.

(ii) Personal difference, as the difference between the pension amount according to the old and new rules, only for the cases the new pension amount is lower than the old one. Initially, when the new legislation was applied, personal differences were completely eliminated starting from the 2nd half of 2016 in case the sum of pension amounts (main and auxiliary) was higher than €1,300. Law 4670/2020 restored the eliminated personal difference (for those with sum of pension amounts higher than €1,300) with effect from 1.10.2019. This amendment was adopted due to the Council of State ruling. This provision affects only a closed group of pensioners who had applied for a supplementary pension up to 31.12.2014.

6. The formula for auxiliary pensions benefit indexation, which can also take negative values is:

$$\gamma_t = \min\left([1 + g_{t-2} - r] - 1, \mathrm{CPI}_{t\text{-}1}\right)$$

where

g_{t-2} : notional rate of return

r : discount rate=1.3% (used in annuities calculation)

$\mathrm{CPI}_{t\text{-}1}$: Consumer Price Indexation.

7. According to article 59 of law 4826/2021, the State covers from the State Budget the impairment of the resources of the old auxiliary NDC from insurance contributions, due to the introduction of the FDC Scheme. In order to maintain the pensions of the insured and the pensioners of the old system at the levels of NDC system, the parameters of the system such as the notional rate of return are calibrated with values as if the NDC system remained open to newcomers.

B. The key elements of the **new** auxiliary **Funded Defined Contribution (FDC) Scheme** are the following:

1. Participation is mandatory for new wage and salary earners, as well as self-employed, for whom the current auxiliary pension system is mandatory. Participation is optional for: i) wage and salary earners, up to a specific age (below 35), who wish to be transferred from the existing to the new auxiliary pension system, ii) self-employed, up to 35, for whom the existing auxiliary pension system is mandatory and wish to be transferred

from the existing to the new auxiliary pension system, iii) self-employed, up to 35, for whom the existing auxiliary pension system is not mandatory. Contributions will remain at the same level with the ones of the existing auxiliary pension plan, namely 6% of reference earnings for wage and salary earners (3% by employees and 3% by employers) and fixed amount (existing classes) for self-employed.

2. The auxiliary pension to be provided on a lifelong annuity monthly basis will be actuarily neutral, based on the financial value of lifetime contributions and the returns of the investments credited to the individual account of the participant. Survivors' and disability pensions (up to a specific level in case of insufficient contributions) are also provided.

3. The new auxiliary FDC pension plan offers to its participants the ability to allocate their accumulated capital in different risk levels and investment profiles.

4. The State guarantees a minimum amount of the monthly auxiliary pension, which corresponds to the actuarial equivalent of the sum of the contributions paid by the insured individual in real terms.

4.1.2 Main demographic, labour force and macroeconomic assumptions

The main demographic, labour force and macroeconomic assumptions are the ones used in the context of the 2021 Ageing Report and are reproduced in Table 11. The demographic assumptions are based on EUROSTAT's population projections (EUROP2019). The labour force projections are based on a Cohort Simulation Model (CSM) developed by DG-ECFIN that calculates entry and exit rates in the labour market by gender and cohort. Finally, the Output Gap Working Group (OGWG) methodology is used for projecting potential growth and its components over the medium term, namely up to 2029, while the long-run projection is based on the central assumption of convergence towards the same value of labour productivity by the end of the projection horizon. The long-term projections, and T+10 are based on the Commission spring 2020 forecast.

The evolution of main demographic variables is given in the first partition of Table 11. Eurostat's demographic projections point to a slow rise in the fertility rate, which reaches a value of 1.5 in 2070 from 1.3 in 2021. However, the fact that the fertility rate remains below the level required for maintaining a non-decreasing total population (2.1 for the developed countries), along with the marginal projected effect of net migration, leads to a declining population that is projected to fall below ten million by 2040 and decline further to 8.6 million by the end of the projection horizon.

Furthermore, the old-age dependency ratio increases from 39.2 in 2021 up to 68.2 in 2050 and then decreases to 65.2 in 2070. Life expectancy at birth increases from 79.3 in 2021 to 86.4 in 2070 for men and from 84.5 in 2021 to 90.3 in 2070 for women. Life expectancy at 65 rises from 19.0 in 2021 to 23.9 at the end of the projection period for men and from 22.0 to 26.7 for women.

Overall, labor force participation is projected to increase as illustrated in the second partition of table 11 for workers aged 20-64 (from 74.5% in 2021 to 82.2% in 2070) as well as for workers aged 20-74 (from 63.8% in 2021 to 71.4% at the end of the projection). The employment rate also increases for workers aged 20-64 (from 62.1% in 2021 to 76.5% in 2070, but it also increases significantly from the first decade) and for workers aged 20-74 (from 53.3 in 2021 to 66.5 in 2070), which affects the projection results.

In the third partition of Table 11, the basic macroeconomic assumptions point to a slowly increasing growth rate of potential GDP that will reach a peak of 1.7% in 2040 and then drop gradually to 1.3% by 2070, while labour productivity growth is projected to follow an increasing path until 2040, reaching a peak of 2.2% and then gradually drop to 1.5% in 2070. Its underlying determinants, namely labour augmenting total factor productivity and capital stock per worker (also referred to as capital deepening) follow a similar path.

Finally, it should be stated that the projections are made under a “no policy change” assumption. They are not forecasts and they are subject to considerable uncertainty. They aim to illustrate what the future could hold if current policies remain unchanged.

Table 11: Demographic projections and macroeconomic assumptions

	2021	2030	2040	2050	2060	2070
Demographic projections						
Total population (million)	10.6	10.3	9.9	9.5	9.0	8.6
Fertility rate	1.3	1.4	1.4	1.5	1.5	1.5
Net migration as % of population	0.1	0.1	0.2	0.2	0.3	0.3
Old age dependency ratio (65+/20-64)	39.2	46.1	57.8	68.2	67.3	65.2
Life expectancy at birth (males)	79.3	80.8	82.4	83.8	85.2	86.4
Life expectancy at birth (females)	84.5	85.7	86.9	88.1	89.3	90.3
Life expectancy at 65 years old (males)	19.0	20.0	21.1	22.1	23.0	23.9
Life expectancy at 65 years old (females)	22.0	22.9	23.9	24.9	25.8	26.7
Population aged 65+ over total population	22.8	26.0	30.6	33.8	33.5	32.8
Labour force participation						
Participation rate (20-64)	74.5	77.4	79.5	81.8	82.1	82.2
Participation rate (20-74)	63.8	65.1	65.8	67.5	70.6	71.4
Participation rate (20-64) - males	82.6	83.1	83.6	85.3	85.3	85.5
Participation rate (20-64) - females	66.6	71.6	75.2	78.1	78.5	78.7
Employment rate (20-64)	62.1	68.0	71.9	76.0	76.4	76.5
Employment rate (20-74)	53.3	57.3	59.6	62.9	65.9	66.5
Unemployment rate (20-64)	16.6	12.1	9.6	7.1	6.9	6.9
Unemployment rate (20-74)	16.5	12.0	9.4	6.9	6.8	6.7
Macroeconomic assumptions						
Real GDP growth rate	7.9	0.7	1.7	1.6	1.5	1.3
Potential real GDP growth	-0.2	0.7	1.7	1.6	1.5	1.3
Growth rate of labour productivity	0.0	0.9	2.2	2.0	1.8	1.5
Total Factor Productivity	0.3	0.7	1.4	1.3	1.2	1.0
Capital deepening	-0.3	0.2	0.8	0.7	0.6	0.5

Source: 2021 Ageing Report

Notes:

Please note that these figures are based on the 2021 Ageing Report, are not updated on basis of more recent figures and do not reflect government policies and projections. For example, according to the latest figures 2021 unemployment rate is lower and equal to 14.7%.

For more information related to the key elements of the pension system as well as the macroeconomic assumptions, please see "National Actuarial Authority (2021), Greek Pension System Fiche, prepared for the 2021 Ageing Report, Ageing Working Group, Economic Policy Committee, European Commission.

https://ec.europa.eu/info/sites/default/files/economy-finance/el_-_ar_2021_final_pension_fiche_0.pdf

For more information on underlying assumptions and projection methodologies used in AR 2021 for all the ageing related items projected see: https://ec.europa.eu/info/publications/2021-ageing-report-underlying-assumptions-and-projection-methodologies_en

For more information on the population projections see: https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data

Since the GDP projection of the 2021 AR are used in this section, as prepared by the European Commission and endorsed by the Ageing Working Group, some figures (e.g. total revenues/expenses as % of GDP) may slightly vary compared to other sections of the stability program that use national estimates prepared from the Ministry of Finance.

It should be noted that the long-term macroeconomic projections used in this section do not take into account the growth benefits that will occur through the savings and investment of the new auxiliary FDC scheme. For an analysis of the potential growth benefits of the new scheme under different scenarios please see: https://teka.gov.gr/meleti-makrooikonomikon-epiptoseon-iobe.

4.2 Projections for pension expenditure and other expenditure related to ageing

4.2.1 Projection results

The main results of the analysis are presented in Table 12 and show a decline of 4.3 percentage points of GDP in age-related expenditure between 2021 and 2070, stemming from the declining path of pension expenditure which declines early in the projection period. In more detail, total age-related expenditure amounts to 23.8% of GDP in 2021 of which 15.9% is pension expenditure. The pension expenditure drops already in the first decade from 15.9% in 2021 to 13.8% in 2030 and amounts to 11.6% of GDP at the end of the projection horizon. A small amount of this decline (0.3% in 2070)[2] is due to the fact that a part of the auxiliary pensions' expenditure is diverted at the new FDC auxiliary pension scheme, which is classified outside the General Government. The results of the analysis show that the reforms that have taken place over the previous years in the pension system can ensure long-term sustainability even in a context of unfavourable demographic developments as described in the previous section.

With respect to non-pension age-related expenditure, the 2021 Ageing Report projections show a relative stable expenditure over GDP starting at 8.0%, then ranging from 7.8% to 8.1% and stabilizing again at 8.0% at the end of the projection period. In Table 10 in the Annex, the items are displayed in detail. In particular, the expenditure on health care increases from 4.6% to 5.2% of GDP at the end of the projection period, while the long-term care expenditure remains stable at 0.2%. The declining trend is the result of educational costs, which decline from 3.2% in 2021 to 2.6% in 2070 depicting the decrease of population in younger cohorts.

Pension contributions (the sum of employers' and employees' contributions) as a share to GDP decline from 8.3% in 2021 to 6.8% in 2070. This decline is mostly explained by the share of contributions diverted to the new FDC Scheme, amounting to 1.4% of GDP at the end of the projection period.

Finally, as far as the projections for total revenue and expenditure over GDP are concerned, they are mechanistically projected under the assumption that changes in these ratios after the horizon of the Stability Program are due only to the projected changes in age-related expenditure and revenues from pensions contributions, therefore they should not be understood as forecasts, but as a long-term sustainability analysis.

[2] For more information on the auxiliary FDC Scheme please see the report of the Hellenic Actuarial Authority: https://www.eaa.gr/images/attachments/analogistiki-meleti-eaa-total-5-4-2021.pdf.

Table 12: Results of long-term sustainability analysis

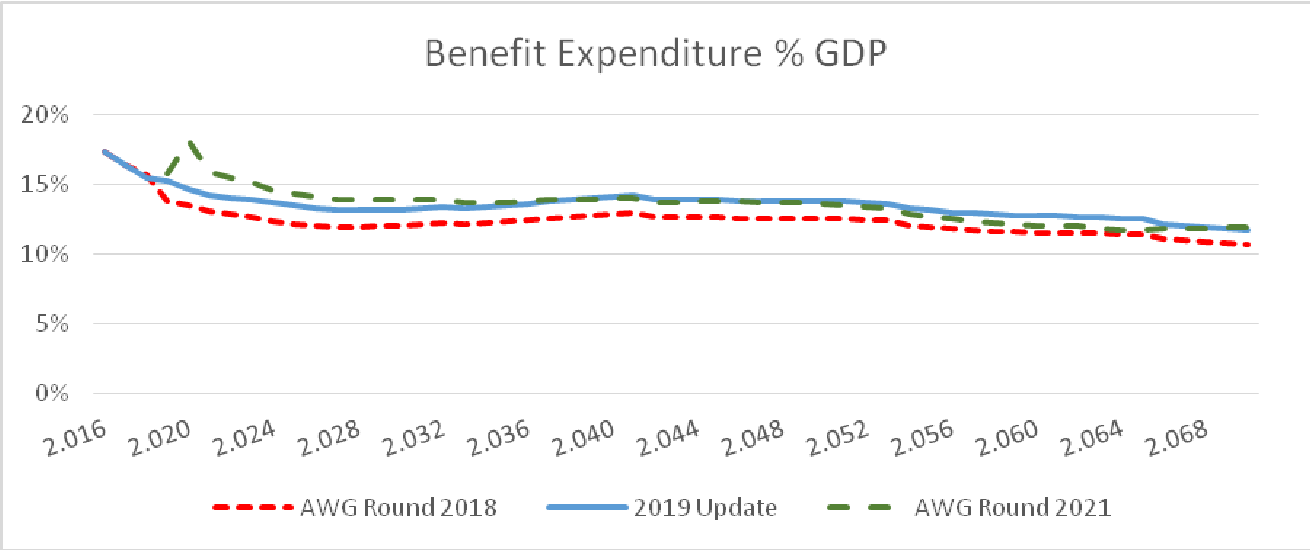
	2021	2030	2040	2050	2060	2070
Total expenditure	**56.7%**	**48.7%**	**48.9%**	**48.8%**	**47.2%**	**46.7%**
of which age-related expenditure	*23.8%*	*21.6%*	*21.8%*	*21.7%*	*20.1%*	*19.6%*
of which pension expenditure	*15.9%*	*13.8%*	*14.0%*	*13.6%*	*12.0%*	*11.6%*
of which other age-related items	*8.0%*	*7.8%*	*7.8%*	*8.1%*	*8.1%*	*8.0%*
Total revenues	**49.3%**	**49.0%**	**48.7%**	**48.3%**	**48.0%**	**47.8%**
of which pensions contributions	*8.3%*	*8.0%*	*7.7%*	*7.3%*	*7.0%*	*6.8%*

Source: National Actuarial Authority, Ministry of Finance.

4.2.2 Comparing with previous long-term projections (AR2018 and updated 2019 projections)

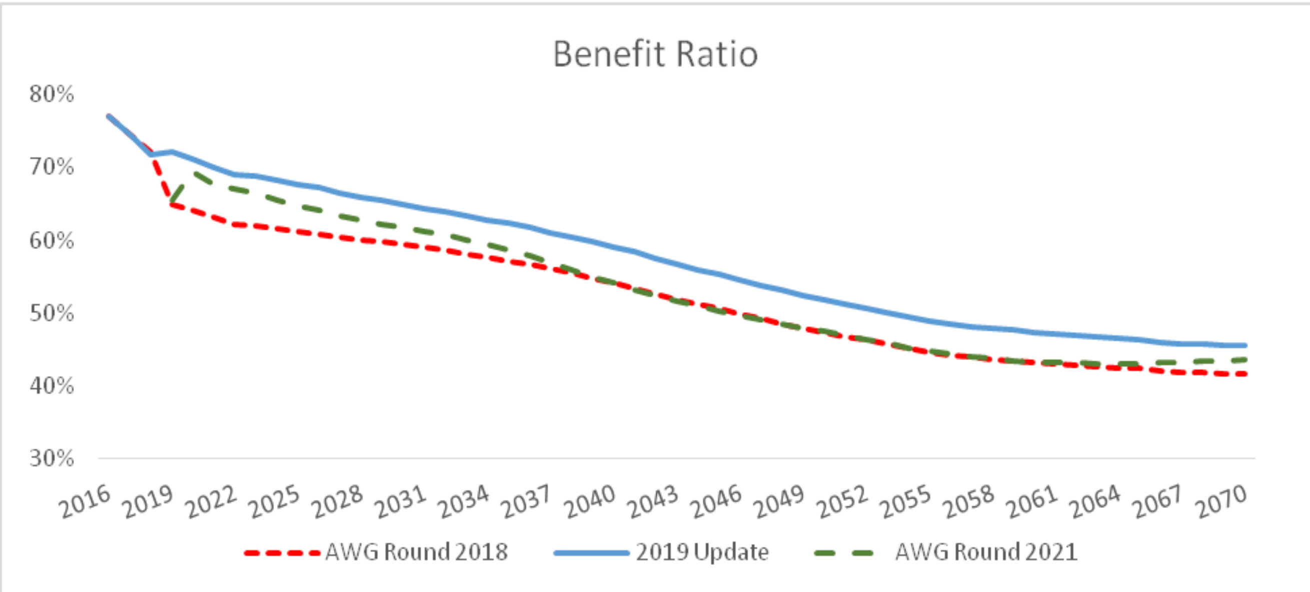
Figure 2 shows the evolution of benefit expenditure as a share of GDP between AR2018, updated projections of 2019 and AR2021. In relation to the AR2018 projections, the update 2019 projection as well as the 2021 results lead to marginally higher pension expenditure that dissipates in the long-run. In particular, the difference between 2018 round and the updated pension projections (2019 update) is due to the new legislation amendments, while the difference between 2019 update and the new pension projections (round 2021) is due to the change in macro-assumptions as well as the new legislation amendments. The effect of the new macroeconomic assumptions for AR2021, which in the first part of the projection period are less favorable compared to the AR2018 projections, lead to a higher level of pension expenditure as % of GDP compared to the updated 2019 projections. The macroeconomic assumptions for the second half of the projection period (after 2040) have an opposite effect since they are more favorable compared to the AR2018 projections, thus, the expenditure as % GDP in this period reaches a lower level compared to the updated 2019 projections. Figure 3 illustrates the evolution of the ratio of average pension to average wage over time (benefit ratio).

Figure 2: Evolution of pension expenditure in the 2021 Ageing Report projections compared to previous projections



Source: National Actuarial Authority

Figure 3: Evolution of benefit ratio in the 2021 Ageing Report projections compared to previous projections



Source: National Actuarial Authority

Notes:

For more results and comparisons across the different rounds of the Ageing Report, please see “National Actuarial Authority (2021), *Greek Pension System Fiche*, prepared for the 2021 Ageing Report, Ageing Working Group, Economic Policy Committee, European Commission.

https://ec.europa.eu/info/sites/default/files/economy-finance/el_-_ar_2021_final_pension_fiche_0.pdf

The introduction of the new FDC Scheme has not been incorporated into the results of the Ageing Report (2021), as the scheme was voted in August 2021 after the publication of the report in May 2021.

5. Quality of public finances

Arrears clearance

In the context of the Enhanced Surveillance, the Government of Greece has committed to minimize the existing stock of (net) arrears and avoid the accumulation of new arrears. An updated action plan was adopted in April 2021 to address the delays in implementation that occurred due to the COVID-19 pandemic. According to the latest available data, total net arrears of the General Government amounted to € 0.6 bn in February 2022, compared to € 1.0 bn in February 2021 and € 1.35 bn in February 2020.

Several actions that had been initiated in previous periods to reduce non-pension arrears were completed in the first quarter of 2022, while implementation of the clearance plan for pending pension claims has continued. At the same time, GAO in cooperation with competent authorities continues the constant monitoring of arrears. It is worth noting that pension arrears have been reduced by 45% compared to January 2021 and it is observed a significant reduction of €30-€40 million per month, currently standing at 217 million at the end of February 2022.

Management and clearance of called state guarantees

GAO has created an action plan for the management of called state guarantees, in collaboration with commercial banks since 2020, with the purpose to clear the remaining stock of state guarantees claims by 2023.

After the operation of the e-file repository and the recruitment of thirty (30) employees for a period of three years through a procedure administered by the Supreme Council for Civil Personnel Selection (ASEP), GAO is in the final process of hiring thirty-five (35) additional permanent employees. The improvement in the clearance pace is evident, noting that 32,404 claims were cleared in the first quarter of 2022, compared to 3,934 cleared the first quarter of 2021. That is, the clearance pace has increased more than eight times over the last year and is expected to more than double the following period so as to reach the clearance targets.

Spending reviews

Spending reviews consist an important Public Financial Management tool for Greece and a permanent mechanism is established for organizing, conducting and monitoring their implementation.

Spending reviews currently focus on areas related to structural interventions that can generate fiscal space, while at the same time improve cost-effectiveness and quality of public expenditure. Spending review areas include both horizontal- for all line ministries- and sectoral actions, such as the green spending review aiming at improving the control of energy consumption (horizontal) and the targeted review of the effectiveness of the national welfare benefits and healthcare system.

Performance Budgeting

Greece completed during 2021 the first phase of the performance budgeting reform, with the introduction of the presentational performance budgeting approach. 2022 central administration budget was presented classified by Policy Sector (1st level) and Program (2nd level). The budget also presented information about general government expenditure at the Program level. Each Program is supported by a series of performance information, including human resources assigned per Program, goals, main actions, main output(s) and expected outcome(s) as well as relative indicators.

As of 2022, the second phase of the reform is launched aiming to support gradual transition to the new system covering all phases of the budget process.

Functional classification

The Greek authorities acknowledge the strong links between the performance budgeting reform and the one that concerns the introduction of the functional classification. GAO has worked on presenting the functional classification for both the ordinary and the public investment budget. The first level of the functional classification was presented in the budget introductory report for 2022 budget. The development of the second level of the functional classification will be presented together with the upcoming MTFS.

Green Budgeting

Greece proceeds with the integration of the green dimension of the budget. 2022 Performance Budgeting report includes presentation, per Program, of the main actions having an environmental impact. During the period 2022-2025, GAO will focus on the development and gradual implementation of the methodology for green tagging.

Annex: Stability Programme tables

Table 1: Macroeconomic prospects

	2021 (Levels)	2021 (rate of change)	2022 (rate of change)	2023 (rate of change)	2024 (rate of change)	2025 (rate of change)
1. Real GDP	181,005	8.3	3.1	4.8	3.5	3.3
2. Nominal GDP	182,830	10.6	7.8	6.5	5.3	5.1
Components Of real GDP						
3. Private consumption expenditure	126,238	7.8	2.4	2.9	2.3	2.0
4. Government consumption expenditure	37,604	3.7	-1.9	-0.8	0.3	0.7
5. Gross fixed capital formation	23,256	19.6	9.8	21.5	9.2	8.6
6. Changes in inventories and net acquisition of valuables (% of GDP)	3,460	1.9	1.6	1.4	1.4	1.3
7. Exports of goods and services	67,040	21.9	5.6	6.2	5.6	4.9
8. Imports of goods and services	76,593	16.1	2.9	5.3	4.0	3.7
Contribution to real GDP growth						
9. Final domestic demand	14,291	8.6	2.5	4.8	3.1	2.9
10. Changes in inventories and net acquisition of valu	-1,822	-1.1	-0.3	-0.1	0.0	0.0
11. External balance of goods and services	1,459	0.9	0.9	0.1	0.5	0.4

Table 2: Price developments

	2021 (Levels)	2021 (rate of change)	2022 (rate of change)	2023 (rate of change)	2024 (rate of change)	2025 (rate of change)
1. GDP deflator	101	2.1	4.5	1.6	1.7	1.8
2. Private consumption deflator	100	1.0	5.9	1.6	1.7	1.8
3. HICP	101.8	0.6	5.6	1.6	1.7	1.7
4. Public consumption deflator	104	-0.3	1.3	1.3	1.4	1.6
5. Investment deflator	101	2.3	4.1	1.4	1.5	1.8
6. Export price deflator (goods and services)	111	15.2	8.9	-1.6	-0.2	1.8
7. Import price deflator (goods and services)	116	16.8	8.4	-1.7	-0.4	1.6

Table 3: Labour market developments

	2021 (Levels)	2021 (rate of change)	2022 (rate of change)	2023 (rate of change)	2024 (rate of change)	2025 (rate of change)
1. Employment, persons	4,654	0.5	2.0	1.8	1.0	1.0
2. Employment, hours worked	9,077,452	8.1	3.1	3.8	1.0	1.0
3. Unemployment rate (%)	14.7	-9.8	-5.4	-12.2	-8.2	-8.9
4. Labour productivity, persons	38.9	7.8	1.1	3.0	2.4	2.2
5. Labour productivity, hours worked	0.02	0.2	0.1	1.0	2.4	2.2
6. Compensation of employees	66,898	1.7	4.1	3.2	3.5	3.7
7. Compensation per employee	19,774	1.4	1.8	1.4	2.3	2.5

Note that the compensation of employees is expressed in gross terms, including social security contributions.

Table 4: Sectoral balances

	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)
1. Net lending/borrowing vis-a-vis the rest of the world	-4.8	-3.3	-2.9	-2.0	-1.5
of which					
- Balance on goods and services	-7.9	-6.9	-6.3	-5.5	-4.9
- Balance of primary incomes and transfers	0.9	1.0	1.6	1.5	1.3
- Capital account	2.2	2.6	1.8	2.0	2.0
2. Net lending/borrowing of the private sector	1.7	0.2	-2.3	-2.3	-2.9
3. Net lending/borrowing of general government	-7.4	-4.4	-1.4	-0.4	-0.1
4. Statistical discrepancy	-0.9	-0.9	-0.8	-0.7	-1.5

Table 5: Total government revenue and expenditure at unchanged policies

	2021 (Levels)	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)
1. Total revenue at unchanged policies	90,389	49.4	48.5	47.5	46.6	45.4
2. Total expenditure at unchanged policies	103,978	56.9	53.0	48.3	46.5	45.0

Table 6: Expenditure to be excluded from the expenditure benchmark

	2021 (Levels)	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)
1. Expenditure on EU programmes fully matched by EU funds revenue	5,072	2.8	3.9	3.7	3.7	3.4
1.a Of which investment expenditure fully matched by EU funds revenue	2,744	1.5	2.8	2.6	2.8	2.4
2. Cyclical unemployment benefit expenditure	199	0.1	0.1	0.0	0.0	-0.1
3. Effect of discretionary revenue measures	-344	-0.2	-0.8	0.5	-0.1	0.0
4. Revenues increased mandated by law	-	-	-	-	-	-

Table 7: Cyclical developments

	2021 (% of GDP)	2022 (% of GDP)	2023 (% of GDP)	2024 (% of GDP)	2025 (% of GDP)
1. Real GDP Growth	8.3	3.1	4.8	3.5	3.3
2. Net Lending of general government	-7.4	-4.4	-1.4	-0.4	-0.1
3. Interest expenditure	2.5	2.4	2.5	2.5	2.4
4. One-off and other temporary measures	0.6	-0.4	0.0	0.0	0.0
4.a Of which one-offs on the revenue side: general government	0.8	-0.4	0.0	0.0	0.0
4.b Of which one-offs on the expenditure side: general government	0.2	0.0	0.0	0.0	0.0
5. Potential GDP growth (%)	0.2	1.0	1.3	2.0	2.0
contributions:					
- labour	-0.4	-0.2	0.0	0.1	0.0
- capital	-0.2	0.0	0.1	0.1	0.2
- total factor productivity	0.9	1.2	1.2	1.2	1.1
6. Output gap	-3.5	-1.4	1.9	3.4	4.5
7. Cyclical budgetary component	-1.8	-0.7	1.0	1.8	2.4
8. Cyclically-adjusted balance (2 - 7)	-5.6	-3.7	-2.4	-2.2	-2.5
9. Cyclically-adjusted primary balance (8 + 3)	-3.1	-1.3	0.1	0.3	-0.1
10. Structural balance (8 - 4)	-6.2	-3.3	-2.4	-2.2	-2.5

Table 8: Divergence from previous update

	2021	2022	2023	2024	2025
Real GDP growth (%)					
Previous update (SP - April 2021)	3.6	6.2	4.1	4.4	-
Current update	8.3	3.1	4.8	3.5	3.3
Difference	4.7	-3.1	0.7	-0.9	-
General government net lending (% of GDP)					
Previous update (SP - April 2021)	-9.9	-2.9	-0.4	0.6	-
Current update	-7.4	-4.4	-1.4	-0.4	-0.1
Difference	2.5	-1.5	-1.0	-1.0	-
General government gross debt (% of GDP)					
Previous update (SP - April 2021)	204.8	189.5	176.7	166.1	-
Current update	193.3	180.2	168.6	155.2	146.5
Difference	-11.5	-9.3	-8.1	-10.9	-

Table 9: Contingent liabilities

	2021 (% of GDP)	2022 (% of GDP)
Public guarantees	15.4	14.0
Of which: linked to the financial sector	10.2	9.4

Table 10: Long-term sustainability of public finances

	2007 (% of GDP)	2010 (% of GDP)	2020 (% of GDP)	2030 (% of GDP)	2040 (% of GDP)	2050 (% of GDP)	2060 (% of GDP)
Total expenditure	47.1	52.5	59.3	48.7	48.9	48.8	47.2
Of which: age-related expenditures	22.8	27.6	26.4	21.6	21.8	21.7	20.1
Pension expenditure	13.0	16.0	18.0	13.8	14.0	13.6	12.0
Social security pension	13.0	16.0	18.0	13.8	14.0	13.6	12.0
Old-age and early pensions	9.7	12.0	12.7	10.2	10.5	10.5	9.1
Other pensions (disability, survivors)	3.3	4.0	5.3	3.6	3.4	3.1	2.8
Occupational pensions (if in general government)			0.0				
Health care	5.8	6.8	5.0	4.7	5.0	5.2	5.3
Long-term care (this was earlier included in the health care)	0.0	0.0	0.2	0.2	0.2	0.2	0.2
Education expenditure	3.6	4.1	3.2	2.9	2.6	2.7	2.7
Other age-related expenditures	0.4	0.7					
Interest expenditure							
Total revenue	40.4	41.3	49.8	49.0	48.7	48.3	48.0
Of which: property income							
Of which: from pensions contributions (or social contributions if appropriate)	8.5	6.3	8.4	8.0	7.7	7.3	7.0
Pension reserve fund assets							
Of which: consolidated public pension fund assets (assets other than government liabilities)							
Systemic pension reforms							
Social contributions diverted to mandatory private scheme				0.2	0.5	0.9	1.2
Pension expenditure paid by mandatory private scheme				0.0	0.0	0.0	0.1
Assumptions							
Labour productivity growth			0.2	0.9	2.2	2.0	1.8
Real GDP growth			-9.7	0.7	1.7	1.6	1.5
Participation rate males (aged 20-64)			82.5	83.1	83.6	85.3	85.3
Participation rates females (aged 20-64)			65.4	71.6	75.2	78.1	78.5
Total participation rates (aged 20-64)			73.8	77.4	79.5	81.8	82.1
Unemployment rate			17.5	12.1	9.6	7.1	6.9
Population aged 65+ over total population			22.2	26.0	30.6	33.8	33.5

Note that the assumptions are based on the 2021 Ageing Report hypotheses, are not updated on basis of more recent figures and do not reflect government projections.

Table 11: Basic assumptions

	2021	2022	2023	2024	2025
Short-term interest rate (annual average)	-0.5	-0.4	0.3	0.7	0.8
Long-term interest rate (annual average)	0.1	0.8	1.0	1.1	1.5
USD/EUR exchange rate (annual average)	1.18	1.12	1.12	1.12	1.12
Nominal effective exchange rate	1.64	-1.07	-0.09	0.00	0.00
(for countries not in euro area or ERM II) exchange rate vis-à-vis the € (annual average)					
World excluding EU, GDP growth	5.7	4.2	3.8	3.6	3.5
EU GDP growth	5.3	4.0	2.8	1.6	1.6
Growth of relevant foreign markets	9.9	4.0	3.2	3.6	3.6
World import volumes, excluding EU	9.3	5.5	4.6	4.5	4.4
Oil prices (Brent, USD/barrel)	71.1	100.0	90.0	80.0	80.0

Table 12: Stock of guarantees adopted/announced at Feb-2022 according to the Programme

	Measures (Description)	Date of adoption	Maximum amount of contingent liabilities (% of GDP)	Estimated take-up (% of GDP)
In response to COVID-19	Sure programme	2020	0.17	0.17
	Paneuropean Guarantees' Fund	2020	0.18	0.18
	Covid-19 Fund (HDB-ex. ETEAN)	May 2020	0.90	0.90
	Subtotal		1.25	1.25
Others	State Guarantees to non General Government Entities	2000	2.73	2.73
	Enterpreneurship loans (EIB loans to greek banks)	2000	0.82	0.82
	Hercules NPL reduction scheme	2020	9.39	9.39
	HDB/ex.ETEAN & Enterpreneurship Fund (excl. COVID 19 Fund)	2003	0.03	0.03
	Subtotal		12.97	12.97
Total			**14.22**	**14.22**