HELLENIC REPUBLIC
MINISTRY OF FINANCE
GENERAL ACCOUNTING OFFICE

DRAFT BUDGETARY PLAN 2019

October 2018

CONTENTS

Introduction

Regulation (EU) 473/2013 of the European Parliament and of the Council (part of the so-called 'Two-pack') introduces a common budgetary timeline for Euro area Member States. Specifically, Draft Budgetary Plans for the forthcoming year must be submitted to the European Commission and to the Eurogroup by October 15th of each year.

The document herein is being submitted to the European Commission and the Eurogroup in accordance with the Regulation.

The format and content of the document are in line with the requirements of the Two pack Code of Conduct which *inter alia,* requires macroeconomic and budgetary forecasts for the current and forthcoming year (in this case 2018 and 2019). The macroeconomic forecasts used for this year and next were endorsed by the Hellenic Fiscal Council (HFC) as required under article 4(4) of the Regulation.

All data presented are on ESA 2010 statistical basis.

Executive summary

Fiscal policy during 2015-18 focused on correcting the structural fiscal imbalances of the Greek economy by completing the fiscal consolidation plan and on restoring credibility towards fiscal and economic policy making. As a result, in September 2017, the European Council closed the Excessive Deficit Procedure (EDP) for Greece, while in both 2016 and 2017 a general government surplus was recorded for the first time in contemporary Greek economic history. Current estimates show that a positive fiscal balance will be recorded for a third consecutive year in 2018 and will be maintained in the medium term. The success of fiscal policy over the previous three years has been the result of a mix of expenditure restraint, revenue enhancing measures, and structural reforms.

This fiscal performance has contributed significantly to the strengthening of credibility towards the country's public finances and has helped restore confidence in the medium-term outlook of the Greek economy. It has thus led to consecutive upgrades of the Republic's credit rating from international rating agencies, to significant reductions in Greek Government Bond yields and to the successful completion of the ESM economic adjustment program in August 2018. Following the conclusion of the program, Greece Is now being integrated in the EU economic governance framework i.e. the European Semester.

As the macroeconomic outlook of Greece improves, fiscal policy has to shift towards a new policy mix, aiming at enhancing households' disposable income, supporting sustainable growth and improving social protection. The rebalancing of the policy mix consists of permanent measures for the reduction of the tax burden and social security contributions of households and firms, as well as targeted actions to strengthen social protection and improve access to the labour market for young workers.

The planned fiscal impulse implied by the new policy mix is well within the limits of the available fiscal space in 2019 and therefore fully compatible with the fiscal target set in the Medium-Term Fiscal Strategy 2019-2022 (MTFS).

Macroeconomic forecasts

1. Macroeconomic developments in 2018

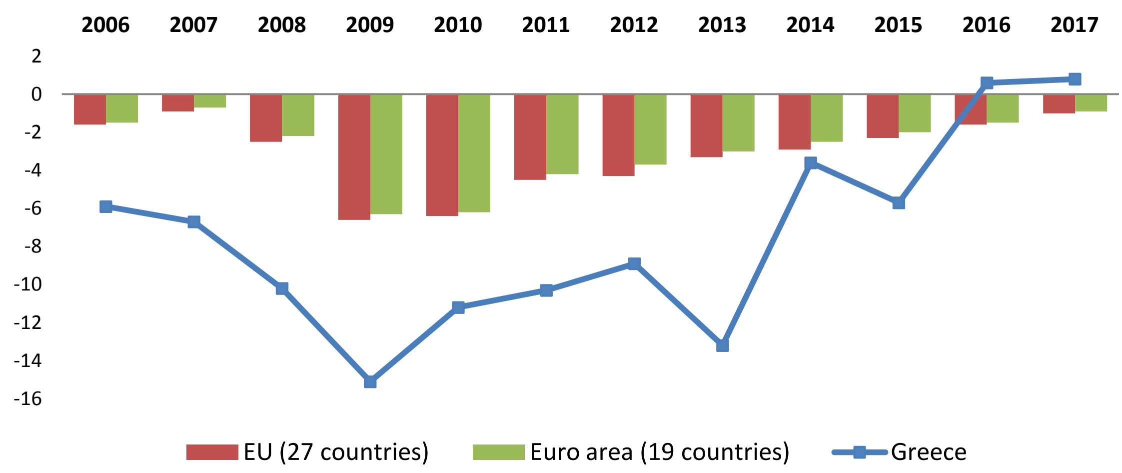
On August 20, 2018, Greece successfully completed the three-year economic adjustment program of the European Stability Mechanism (ESM) and secured a package of debt relief measures that makes public debt dynamically sustainable.

Already in September 2017, the strong fiscal outturns had allowed Greece to exit the EDP a year sooner than planned. The general government balance stood at 0.8% of GDP in 2017, recording a surplus for the second consecutive year, while the primary balance reached 4.2% of GDP[1] against the program target of 1.75% (Graph 1.1).

Real GDP growth reached 1.4%[2] in 2017, with investment growth as the main driver (at an annual rate of 9.6%).

Graph 1.1Evolution of the General Government deficit

as a percentage (%) of GDP



Source: EDP fiscal data, first notification for 2017
(Hellenic Statistical Authority, Eurostat)

Real GDP increase in 2017 implies a growth momentum for 2018 through a carry-over effect of 0.6% on an annual basis. Further positive effects will result from a stable economic environment ensuing the conclusion of the last two program reviews, the upgrade of the Republic's credit rating by international rating agencies[3] and the significant de-escalation of the Greek Government Bond yields.

In 2018, real GDP growth is expected to reach 2.1% with positive developments across GDP components . Specifically:

The further improvement in confidence and the stable creation of new jobs recorded in the first half of 2018 (1.6% on a national account basis) have supported an increase in the real

[1] According to the methodology of the Financial Assistance Facility

[2] 1st notification of AnnualNational Accounts for 2017, Hellenic Statistical Authority.

[3] Upon conclusion of the program's last review (June 2018), the creditworthiness of the Greek economy was upgraded by Standard & Poor's from Bto B+ (with an initially stable and later on positive outlook), by Fitch from B (positive) to BB- (stable), by DBRS from CCC (high) to B (high) and by R&I from CCC+ (positive) to B (stable). These upgrades followed a series of previous upgrades linked to the smooth implementation of the ESM Program, such as thoseof January-February 2018 by Standard & Poor's (from B- to B), by Fitch (from B- to B) and by Moody's (from Caa2 to B3).

wage bill by 3.0%. Consequently, real private consumption stabilized on a year-on-year basis in the first quarter of 2018, and rose significantly in the second quarter, recovering at an overall 0.5% year-on-year rate in the first semester. Given that the upward trends in employment and wages are projected to sustain throughout 2018 (at a 1.7% and a 2.9% rate, respectively, compared to 2017), real private consumption is forecast to rebound substantially in 2018 by 1.0%, making it the main component of final domestic demand growth. The recovery of real private consumption is also favored by the projected deceleration of the inflation rate in 2018 (to 0.6% based on the Harmonized Index of Consumer Prices, from 1.1% in 2017).

In the first semester of 2018, improved business expectations and a stable investment environment have supported the implementation of investment projects across all investment categories, with the exception of transport equipment. Investment increased by 6.1% in construction (7.9% in dwellings) and by 19.0% in equipment other than transport equipment. The Investment Plan for Europe is expected to contribute to these investment dynamics, as the European Commission estimates that total investment of €10.6 billion will be allocated including €2.7 billion through the European Fund for Strategic Investments (EFSI)[4]. However, the total volume of investment declined in the first semester of 2018 by 7.9% year-on-year, due to the contraction of investment in transport equipment (mainly ships[5]) by 53.4%. In the second semester of 2018, the expected partial recovery of transport equipment should support the reversal of trend in total investment, raising its annual growth rate to 0.8% in 2018 and its contribution to real GDP to 0.1%.

The decline in total investment in the first semester of 2018 was offset by a simultaneous increase in net exports, with the external sector's contribution to annual GDP growth reaching 1.3% of GDP. This contribution stemmed mostly from the balance on goods[6] (€2.1 billion in volume against the first semester of 2017), but also from the balance on services (€0.3 billion, respectively). As long as the positive trends are maintained throughout the year, the contribution of the external sector to real GDP growth is expected to reach 1.2% in 2018, against a marginally negative estimate in the MTFS. The revised forecast restores net exports as the main determinant of GDP growth.

The positive developments in the external sector signal an increase in the Greek economy's competitiveness, reflected in the improvement of the current account balance from -15.8% of GDP in 2008 to -0.9% of GDP in 2017 (Graph 1.2). Between 2008 and 2017, over two-thirds of the external deficit correction was due to the deficit decline in the balance on goods by 58.9%, of which about 26% was due to the rise in exports of goods.

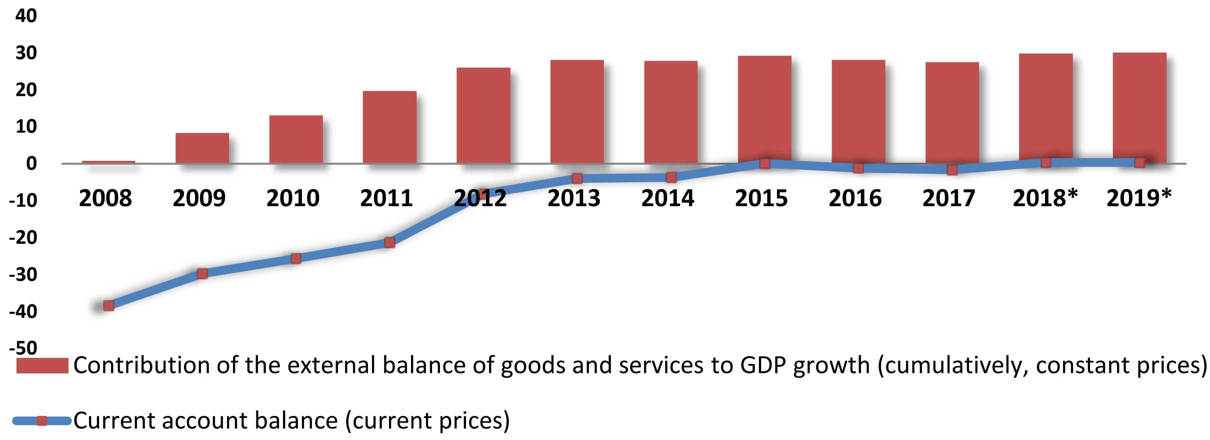
Graph1.2. Evolution of the Current Account balance

(in billion €)

[4]Factsheet «Investment Plan for Europe», European Commission, July 2018

[5]According to the commercial transactions data from the Hellenic Statistical Authority, in the first seven months of 2018 the decrease in arrivals of ships from abroad reached 57.2% compared to the corresponding period of 2017 (at current prices)

[6]The improvement of the balance on goods was supported by both the increase in exports of goods (+ 9.0% compared to the first half of 2017) and the decrease in imports of goods (-2.3%, respectively). Drivers of the decline in imports of goods were the abovementioned year-on-year decrease in ship arrivals from abroad and the high deflator in imports of goods, amid a 38.6% year-on-year increase in the international Brent oil price in the second quarter of 2018.



Source: Annual nationalaccountsfor 2017 (Hellenic Statistical Authority), Ministry of Finance
** Estimates/ Projections*

2. Macroeconomic projections for 2019

Global GDP is projected to grow at a rate of 3.9% in 2019, as in 2018, according to the recent IMF World Outlook update. In the Eurozone, an growth rate of 1.9% is projected for 2019 from 2.2% in 2018. In developing economies, output growth is expected to stand at 5.1% in 2019. World trade is expected to increase by 4.5% in 2019 from 4.8% in 2018. External demand for euro area's goods and services is projected to increase by 4.3% in 2019.

World inflation is expected to remain unchanged in 2019 in relation to 2018, at 2.2% for the advanced economies and 4.4% for the emerging markets and developing economies. The average crude oil price (UK Brent, Dubai Fateh and West Texas Intermediate) was 52.81 dollars per barrel in 2017. For 2018, the average crude oil price is estimated at 70.23 dollars/barrel, while for 2019 at 68.99 dollars/barrel.

Key indicators for the world economy
(% annual changes, constant prices)

	2017	2018*	2019*
World GDP	3.7	3.9	3.9
GDP of the European Union	2.4	2.1	2.0
GDP of the Eurozone	2.4	2.2	1.9
GDP of the USA	2.3	2.9	2.7
World trade (goods and services)	5.1	4.8	4.5
Inflation			
α. Developedeconomies	1.7	2.2	2.2
β. Emerging markets and developing economies	4.0	4.4	4.4
Oil prices (Brent, USD/barrel)	52.81	70.23	68.99

Source: IMF World EconomicOutlook, Update (July 2018), European Commission's European Economic Forecast, summer 2018 (interim)
* Estimates/ projections

Risks and uncertainties surrounding the prospects for global growth are broadly related to a possible escalation of trade tensions and a rise in protectionism, to the high public and private debt in certain large economies, and to the geopolitical tensions that fuel the refugee problem.

External Assumptions			
	2017	**2018**	**2019**
USD/€ exchange rate (annual average)	1,13	1,18	1,14
Nominal effective exchange rate	2,2	5,1	0,6
World excluding EU, GDP growth	3,9	4,2	4,1
EU GDP growth	2,4	2,1	2
Growth of relevant foreign markets	5,3	4,1	3,6
World import volumes, excluding EU	5,3	4,9	4,4
Oil prices (Brent, USD/barrel)	52,81	70,23	68,99

In Greece, real GDP is estimated to grow by 2.5% year on year, surpassing the 2.1% growth rate estimated for the current year.

This acceleration of economic activity is expected to rely on the credibility of fiscal policy and the continuous implementation of structural reforms. The following table analytically presents the macroeconomic projections for 2019:

Key indicators for the Greek economy (% annual changes, constant prices)			
	2017	2018**	2019**
Real GDP	1.4	2.1	2.5
Private consumption	0.1	1.0	1.1
Public consumption	-1.1	0.2	0.6
Gross fixed capital formation	9.6	0.8	11.9
Exports of goods and services	6.8	7.5	5.8
Imports of goods and services	7.2	3.4	5.2
GDP deflator	0.7	0.9	1.3
Harmonized Index of Consumer Prices	1.1	0.6	1.2
Employment*	2.1	1.7	1.8
Unemployment rate*	19.8	18.3	16.7
Unemployment rate (Labor Force Survey)	21.5	19.9	18.2

Source: Annual National Accounts (Hellenic Statistical Authority), estimates/ projections of the Ministry of Finance

* On a national account basis

** Estimates/ projections

Regarding the components of real growth, the main contribution is expected to come from the further recovery of private consumption and the robust investment activity compared to 2018. In fact, investment's contribution to GDP growth is expected at 1.5 percentage points (pp) of GDP in 2019, reaching its peak over the medium term.

Growth in real public consumption is expected to accelerate in 2019 by 0.6% from 0.2% in 2018 following a drop of 0.6% of real GDP in the period 2016-2017.

Real private consumption is expected to contribute to real GDP growth by 0.8 pp out of a total of 2.5 pp of growth (from 0.7 pp in 2018). Its annual growth rate is estimated at 1.1%, amid estimated increases in the nominal wage bill for the whole economy by 3.3% (2.0% in real terms)[7] and in the average wage (1.4% in 2019 versus 1.2% in 2018).

The forecast for a smaller annual increase in the average wage over the wage bill implies a continued upward trend in employment, at an estimated annual rate of 1.8% in 2019 (across

[7]The slight deceleration of real wage bill growth against 2018 is due to the estimated increase in inflation. By contrast, nominal wage bill should increase at a higher rate in 2019.

employees and self-employed). As a result, unemployment is expected to decline to 18.2% based on the Labor Force Survey definition.

The contribution of the external sector to GDP growth should be limited to marginally positive ground (at 0.1% of real GDP), as the boost in investment is expected to drive a more robust recovery in imports of goods versus exports of goods, partly offsetting the positive contribution of the balance on services by 0.6% of GDP.

Inflation is projected to increase in 2019 to 1.2% from 0.6% in 2018, as a result of the diverse effects of several factors, namely, lower excess capacity, weaker growth in global trade, upward trends in international oil prices and ECB maintaining interest rates at the current low levels at least until the summer of 2019, notwithstanding the envisaged unwinding of net asset purchases by December 2018.

Macroeconomic Prospects				
	2017 (Levels)	2017 (rate of change)	2018 (rate of change)	2019 (rate of change)
1. Real GDP	187.089	1,4	2,1	2,5
of which				
Attributable to the estimated impact of aggregated budgetary measures on economic growth	-1.300	-0,7	0,1	0,2
2. Potential GDP	202.600	-1	-0,7	-0,2
Contributions				
Potential GDP contributions:Labour		-0,1	-0,2	-0,1
Potential GDP contributions:capital		-0,4	-0,3	-0,1
Potential GDP contributions: total factor productivity		-0,5	-0,3	-0,1
3. Nominal GDP	177.735	2	3	3,8
Components Of real GDP				
4. Private consumption expenditure	127.133	1	1,1	1,2
5. Government consumption expenditure	39.947	-1,1	0,2	0,6
6. Gross fixed capital formation	23.386	9,6	0,8	11,9
7. Changes in inventories and net acquisition of valuables (% of GDP)	1.683	0,9	0,9	0,9
8. Exports of goods and services	59.759	6,8	7,5	5,8
9. Imports of goods and services	64.819	7,2	3,4	5,2
Contribution to real GDP growth				
10. Final domestic demand	1.755	0,95	0,87	2,37
11. Changes in inventories and net acquisition of valu	1.292	0,7	0	0
12. External balance of goods and services	-552	-0,3	1,23	0,14

Expenditure and revenue projections under the no policy change scenario

In 2017 the headline general government balance in ESA terms (April 2018 EDP data) recorded a surplus of 0.8% of GDP, while the primary balance reached 4.0% of GDP.
In program terms, the primary balance stood at 4.24% of GDP, considerably surpassing the program target of 1.75%.

The MTFS projected a general government balance of 0.4% of GDP in 2018 (an estimation that remains unchanged). The primary balance is now forecast at 3.9% of GDP versus the initial projection of 3.8% in the MTFS.

In program terms, the primary surplus is estimated at 3.8% of GDP, while the respective projection included in the MTFS was 3.56%.

For 2019, a headline budget balance of 1.1% of GDP is estimated under a no policy change scenario versus the MTFS forecast of 0.8%. The primary balance is revised upwards to 4.5% of GDP versus the MTFS forecast of 4.1%.

In program terms, the primary balance is estimated at 4.2% of GDP versus the MTFS forecast of 4.0% and well above the target of 3.5% set in the MTFS.

Revenue and Expenditure at unchanged policies		
(% of GDP)	**2018**	**2019**
General governement (S13)		
1. Total revenue at unchanged policies	48,7	46,7
Of which		
1.1 Taxes on production and imports	17,3	17,1
1.2 Current taxes on income, wealth, etc	10	9,5
1.3 Capital taxes	0,1	0,1
1.4 social contributions	14,1	13,1
1.5 Property income	0,4	0,4
1.6 Other	6,8	6,5
p.m.: Tax Burden (D.2+D.5+D.61+D.91-D.995)	41,5	39,8
Total expenditure at unchanged policies	48,3	45,6
Of which		
2.1 Compensation of employees	11,9	11,1
2.2 Intermediate consumption	4,9	4,8
2.3 Social payments	20,4	18,7
Of which unemployment benefits	0,6	0,5
2.4 Interest expenditure	3,5	3,4
2.5 Subsidies	1	1
2.6 Gross fixed capital formation	4	4,7
2.7 Capital transfers	0,4	0,3
2.8 Other	2,2	1,6

Expenditure and revenue targets

The tables below provide a more detailed description of the projected general government expenditure and revenue targets in 2018 and 2019.

The headline general government budget balance is estimated at 0.6% of GDP for 2019 compared to 1.1% under a no change policy scenario, while the primary balance is estimated at 3.9% of GDP compared to 4.5% under a no-policy-change scenario.

In program terms, the primary balance is estimated at 3.6% of GDP relative to the target of 3.5%. Compared with the 2019 draft budget submitted to Parliament on October 1, 2018, there are only marginal changes (https://minfin.gr/web/guest/proupologismos/-/asset_publisher/qmvb5pyzdGAQ/content/proschedio-kratikou-proupologismou-2019?inheritRedirect=false&redirect=https%3A%2F%2Fminfin.gr%2Fweb%2Fguest%2Fproupologismos%3Fp_p_id%3D101_INSTANCE_qmvb5pyzdGAQ%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1).

Revenue and Expenditure targets		
(% of GDP)	**2018**	**2019**
General governement (S13)		
1. Total revenue target	48,7	47,6
Of which		
1.1 Taxes on production and imports	17,3	17
1.2 Current taxes on income, wealth, etc	10	9,8
1.3 Capital taxes	0,1	0,1
1.4 social contributions	14,1	13,7
1.5 Property income	0,4	0,4
1.6 Other	6,8	6,6
p.m.: Tax Burden (D.2+D.5+D.61+D.91-D.995)	41,5	40,6
Total expenditure target	48,3	47
Of which		
2.1 Compensation of employees	11,9	11,7
2.2 Intermediate consumption	4,9	4,8
2.3 Social payments	20,4	19,5
Of which unemployment benefits	0,6	0,5
2.4 Interest expenditure(=9 in table 2.a)	3,5	3,4
2.5 Subsidies	1	1,1
2.6 Gross fixed capital formation	4	4,6
2.7 Capital transfers	0,4	0,3
2.8 Other	2,2	1,6

General Government Budget Balance		
(% of GDP)	**2018**	**2019**
Net lending (EDP B.9) by sub-sector		
1. Net lending/net borrowing: General government	**0,4**	**0,6**
2. Net lending/net borrowing: Central government	-0,7	-0,1
3. Net lending/net borrowing: State government	N	N
4. Net lending/net borrowing: Local government	0,1	0,1
5.Social security funds	1	0,6
6. Interest expenditure	3,5	3,4
7. Primary balance	**3,9**	**3,9**
8. One-off and other temporary measures	-0,4	0,4
8.a Of which one-offs on the revenue side: general government	0,2	0,4
8.b Of which one-offs on the expenditure side: general government	0,6	0
9.Real GDP Growth(%) (=1 in Table 1a)	2,1	2,5
10.Potential GDP Growth(%) (=2 in Table 1a)	-0,7	-0,2
Contributions		
-Labour	-0,2	-0,1
-Capital	-0,3	-0,1
-Total factor productivity	-0,3	-0,1
11. Output gap (% of potential GDP)	-5,2	-2,8
12. Cyclical budgetary Component (% of potential GDP)	-2,7	-1,5
13. Cyclically adjusted balance (1-12) (% of potential GDP)	3,1	2,1
14. Cyclically adjusted primary balance (13+6) (% of potential GDP)	6,6	5,5
15. Structural balance (13-8) (% of potential GDP)	**3,5**	**1,7**

Description of discretionary measures included in the Draft Budget

The following new fiscal interventions will be implemented from 2019 onwards and are presented in the following table in net terms[8]:

- **Help at Home Program:** The measure consists of switching the current employment status of 3,000 temporary employees to long-term contracts.

- **Special education teachers:** Hiring of 4,500 teachers and specialized staff for positions currently occupied by temporary teachers. The current spending is financed from the Public Investment Budget (PIB). The new hirings will be financed from the Ordinary Budget while maintaining the current PIB ceiling. At the same time, there will be an equal reduction on the ceiling on temporary staff in order to maintain the same total headcount in the public sector.

- **Housing allowance:** Recalibration of the housing allowance legislated in 2017 in a more targeted manner.

- **Social security contribution reductions:** Reduction of social security contributions for independent professionals, self-employed and farmers, in particular, reduction of the current rate by 1/3 and implementation of the minimum income base for supplementary pension and lump-sums. The above categories suffered a significant burden as a result of the switch from notional to actual income base introduced in the 2016 pension reform, while the increase in contributions led to a drop both in the number of self-employed and independent professionals and in their declared income. Therefore the measure aims to reverse this trend and increase tax compliance.

- **Subsidy to the social security contributions of young workers:** The measure aims at improving access of young people to the labour market and will lead to the creation of new jobs contributing to the reduction of youth unemployment, which is the highest in the EU. As a result, the measure is also expected to have a positive impact on poverty rates in these age groups. The measure will cover young people up to 24 years of age and consists of a 100% subsidy of the social security employees' contributions and a 50% subsidy of employers' contributions.

- **Property tax reduction:** Reduction of the basic property tax (ENFIA) by a weighted average rate of 10% in 2019 .

- **Corporate Income Tax reduction:** Gradual reduction of the tax rate from 29% to 25% in a 4 years period, with the resulting fiscal impact starting from 2020 onwards.

- **Reduction in dividends tax rate:** Reduction of the tax rate on distributed profits by 5 percentage points with the resulting fiscal impact starting from 2020 onwards.

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[8] The quantification of the fiscal interventions will be finalized following consultations with the European Commission.

Fiscal interventions 2019 (on net basis) (in mio €)			
		Amount	Remarks
A	Changes relative to the MTFS 2019-2022	-335	
1	Non implementation of counter-measures 2019 except from family benefits	1.730	
2	Pension interventions (provisions of law 4472/2017)	-2.065	
B	New fiscal interventions (**B**1+**B**2)	-765	
B1	REVENUES INTERVENTIONS	-440	
1	ENFIA reduction	-263	Average reduction by 10%
2	Reduction of social security contributions of independent professionals, self-employed and farmers	-177	Reduction of main insurance rate by 1/3 – Implementation of lowest entry-level salary for supplementary pension and lump sum
3	Reduction of dividends tax rate	0	The measure will start having a fiscal impact from 2020 onwards – Reduction of the tax rate from 15% to 10%
4	Gradual reduction of CIT from 29% to 25%	0	The measure will start having a fiscal impact from 2020 onwards – Reduction by 1% per year
B2	EXPENDITURE INTERVENTIONS	-325	
5	Housing allowance	-200	
6	Subsidy of young employees social security contributions	-103	
7	Special education	-22	
8	“Help at home” program	0	The fiscal impact has been depicted in the baseline scenario
	TOTAL FISCAL INTERVENTIONS (**A** + **B**)	-1.100	

In the following table the above measures for 2019 are presented in gross terms and in a more aggregate manner, according to their classification in ESA categories:

Discretionary measures							
% GDP	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Revenue							
Taxes on production and imports	0	0	-0,1	0	0	0	0
Current taxes on income, wealth, etc							
Capital taxes							
Social contributions	0	0	-0,09	0	0	0	0
Property income							
Other							
Expenditure							
Compensation of employees	0	0	-0,01	0	0	0	0
Intermediate consumption							
Social payments, of which, where applicable, unemployment benefits	0	0	-0,92	0	0	0	0
Interest expenditure							
Subsidies	0	0	-0,05	0	0	0	0
Gross fixed capital formation	0	0	0,16	0	0	0	0
Capital transfers							
Other (other than D.41)							

Debt developments

The general government debt is estimated at €335,000 million or 183.0% of GDP at the end of 2018, vs €317,404 million or 178.6% of GDP in 2017. For 2019, the general government debt is forecast at €323,500 million or 170.2% of GDP, i.e. reduced by 12.8 pp compared to 2018.

Following the implementation of the short term debt relief measures at the end of the previous year, the Eurogroup on June 22, 2018, specified the medium term relief measures, which further enhance the sustainability of the Greek public debt, in order to keep the annual gross financing needs (GFN ratio) below 15% of GDP in the medium term and below 20% in the long run. The medium term debt relief measures include (i) the abolition of the step-up interest rate margin related to the debt buy-back tranche of the second program as of 2018, (ii) the use of 2014 SMP profits from the ESM segregated account and the transfer of ANFA and SMP income equivalent amounts to Greece as of budget year 2017 and (iii) a further deferral of EFSF interest and amortization by 10 years and an extension of the maximum weighted average maturity by 10 years, respecting the program authorized amount.

In the long run and in face of extraordinary shocks regarding debt a contingency mechanism may be activated to ensure its sustainability by implementing further relief measures, such as further smoothening of the maturities of EFSF loans, as well as stabilization of their interest rates and interest payments deferral so as to comply with the imposed ceiling of the GFN ratio.

With the disbursement of the last tranche of €15,000 million from the ESM, Greece exits the program with a significant cash buffer which, along with the already healthy cash position, will cover, even under non favorable conditions, the financing needs of the Greek State up to the end of 2020. The creation of a cash buffer resulted in a temporary increase of the public debt in 2018.

At the end of August 2018 the total amount of European loans of the first, second and third program (GLF, EFSF, ESM) amounted to €243,682.3 million, while the outstanding debt to the IMF was at €10,291.58 million.

General Government Debt development		
(% of GDP)	**2018**	**2019**
Gross debt	183	170,2
Change in gross debt ratio	4,4	-12,8
Contributions to changes in gross debt		
Primary balance	3,9	3,9
Interest expenditure	-3,5	-3,4
Stock-flow adjustment	-4,8	12,3
p.m.: Implicit interest rate on debt	1,9	2
Other relevant variables		
Debt amortization (existing bonds) since the end of the previous year	1,1	4,6
Percentage of debt denominated in foreign currency	4	3
Average maturity	18,4	18,4

Distributional impact of the main revenue and expenditure measures

The aim of this section is to present the distributional effect before and after the new fiscal interventions. In order to estimate the distributional effect of the measures their impact is calculated on the equivalized disposable income of the individuals using certain inequality and poverty indices. With respect to the calculation of poverty indices results are provided using both the anchored and the floating poverty line.

Methodology

The estimation of the distributional impact has been conducted using the Euromod Tax Benefit Microsimulation model for Greece on which the budgetary measures have been simulated. The data used as input data are the 2016 Greek national SILC data (incomes 2015). The sample consists of 44,014 individuals, corresponding to 18,255 households. When weights are used, the figures sum up to 10,630,471 individuals and 4,168,785 households, corresponding to the Greek population.

It has to be underlined that the simulated policies concern personal taxes, benefits, social security contribution and that only first-round effects can be estimated. Policies that do not directly affect households, such as changes in corporate income taxation, or secondary effects of social security contribution changes (increases in employment that will increase incomes on a second round) cannot be estimated.

Results

Table 1 presents the mean annual equivalized disposable income (in euros) by decile for 2018 and the relative and absolute changes that occur in 2019 as a result of the fiscal interventions. The disposable income is the income that individuals and households finally have available for consumption or savings, thus after deducting direct taxes and social security contributions and after adding possible social transfers (pensions and benefits). Assuming that all households pool their resources and distribute them "equally" among the household members, the equivalized income is calculated using the OECD equivalent scales that give weights 1 to the first adult, 0.5 to other adults in the household and 0.3 to children under 14. The results show that the mean equivalized disposable income of individuals will increase by 0.31%.

Table 1. Mean annual equivalised disposable income (EUR), relative and absolute changes

Decile	2018	2019	
	Mean (euros)	Absolute change	Relative change (%)
1	2.501	140	5,59
2	4.183	76	1,82
3	5.349	19	0,36
4	6.307	-23	-0,37
5	7.291	-42	-0,58
6	8.360	-24	-0,28
7	9.679	-17	-0,17
8	11.387	-10	-0,08
9	13.734	8	0,06
10	22.426	152	0,68
All	**9.118**	**28**	**0,31**

** Changes are calculating with respect to 2018 mean equivalized income per decile.*

** The equivalized income is calculated using the OECD equivalent scales that give weights 1 to the first adult, 0.5 to other adults in the household and 0.3 to children under 14.*

In **Table 2** the main inequality indices are presented, calculated on the income distribution of 2018 and 2019. The Gini coefficient ranges between 0 (all incomes are equal) and 1 (one person has all the income). It is more sensitive to changes in the middle of the income distribution. The Mean Log Deviation Inequality Index (MLD) is zero when all incomes are equal, and takes larger positive values as incomes become more unequal, especially at the high end. Atkinson indices range between 0 (all incomes are equal) and 1 (one person has all the income). Atkinson 0.25 is more sensitive to changes at the top of the income distribution, while Atkinson 0.75 is more sensitive to changes at the bottom of the income distribution. All inequality indices illustrate a decrease in inequality relative to 2018.

Table 2. Inequality indices

	2018	2019	Dif 2019
Gini	0,323	0,322	-0,001
Mean Log Deviation	0,181	0,179	-0,002
Atkinson index 0.25	0,046	0,045	0,000
Atkinson index 0.75	0,129	0,127	-0,002

** Gini coefficient ranges between 0 (all incomes are equal) and 1 (only one person has all income). It is more sensible to changes in the middle of the income distribution.*

** MLD is zero when all incomes are equal, and takes larger positive values as incomes become more unequal, especially at the high end.*

** Atkinson indices range between 0 (all incomes are equal) and 1 (only one person has all income). Atkinson 0.25 is more sensible to changes at the top of the income distribution, while Atkinson 0.75 is more sensible to changes at the bottom of the income distribution.*

Tables 3 shows the main poverty indices that are used for depicting the aggregate level of poverty in an economy with respect to the number of individuals under the poverty line (headcount ratio) and the depth of poverty (poverty gap and square poverty gap). The analysis of all indices is important, since some reforms might not decrease poverty vis-à-vis the headcount ratio, but might decrease extreme poverty and improve the poverty gap.
In more detail, FGT(0) is the headcount ratio and shows the share of individuals whose income is below 60% of the median equivalized disposable income, for different concepts of income. FGT(1) is the poverty gap index and calculates the average of the differences between individual incomes and the 60% poverty line, expressed as a percentage of the poverty line, and calculated only for those below the poverty line. FGT (2) is the square of poverty gap and calculates the square of the average of the differences between individual incomes and the 60% poverty line, expressed as a percentage of the poverty line, and calculated only for those below the poverty line. The results are presented using both the anchored and the floating poverty line, always in relative terms as 60% of the median equivalized disposable income. When using the anchored poverty line **(Table 3a)** the absolute effect of the reforms is better assessed in comparison to the previous year. The floating poverty line **(Table 3b)** also takes into account the effect of changes in poverty line in the final result of the poverty level. The results indicate that when using the anchored 2018 poverty line (EUR 4,670), poverty decreases under all three indices.

Table 3a. FGT poverty indices

	2018	2019	Dif 2019
FGT(0)	18,70	18,18	-0,52
FGT(1)	5,71	5,37	-0,34
FGT(2)	2,67	2,44	-0,23

Table 3b. FGT poverty indices

	2018	2019	Dif 2019
FGT(0)	18,70	18,05	-0,65
FGT(1)	5,71	5,32	-0,39
FGT(2)	2,67	2,41	-0,25

** FGT (0) is the headcount ratio and shows % of individuals whose income is below 60% of the median equivalised disposable income.*

** FGT (1) is the poverty gap index and calculates the average of the differences between individual incomes and the 60% poverty line, expressed as a % of the poverty line, and calculated only for those below the poverty line.*

** FGT (2) is the square of poverty gap and calculates the square of the average of the differences between individual incomes and the 60% poverty line, expressed as a % of the poverty line, and calculated only for those below the poverty line.*

** Poverty line is anchored for tables A at EUR **4,670** % of the annual median equivalised disposable income of 2018 and floating for tables B (at EUR 4,604 for the baseline scenario and at EUR 4,650 for the alternative scenario).*

ANNEX

Main assumptions			
	2017 (Levels)	2018 (Levels)	2019 (Levels)
1. External environment			
a. Prices of commodities	7	3	-1
b. Spreads of german Bond	6	3	3
2. Fiscal policy			
a. General Government net lending/ net borrowing	1.454	740	1.081
b. General gross debt	317.404	335.000	323.500
3. Monetary policy / Financial sector / Interest rates assumptions			
a. interest rates			
i. Euribor	-0,3	-0,3	-0,2
ii. Deposit rates	0,3	0,3	0,3
iii. Interest rates for loans	4,7	4,6	4,4
iv. Yelds to maturity of 10 year government bonds	6,0	4,0	3,8
b. Evolution of deposits	126,3	132,8	137,4
c. Evolution of loans	184,0	185,1	190,7
d. NPL Trends	94,4	81,5	64,6
Demographic trends			
a. Evolution of working age population	6.893.800	6.835.100	6.776.500
b. Dependency ratios	34,0	34,7	35,3

Price Developments				
	2017 (Levels)	**2017 (rate of change)**	**2018 (rate of change)**	**2019 (rate of change)**
1. GDP deflator	95	0,7	0,9	1,3
2. Private consumption deflator	97	1,2	0,6	1,2
3. HICP	101,2	1,1	0,6	1,2
4. Public consumption deflator	88,8	1,8	2	0,8
5. Investment deflator	96,1	0,3	2,8	0,6
6. Export price deflator (goods and services)	98,8	4,2	3,6	0,6
7. Import price deflator (goods and services)	94	4,7	4,7	0,3

Labour market developments				
	2017 (Levels)	**2017 (rate of change)**	**2018 (rate of change)**	**2019 (rate of change)**
Employment, persons	4.170	2,1	1,7	1,8
Employment, hours worked	8.464.838	1,8	1,7	1,8
Unemployment rate (%)	1.027	21,5	19,9	18,2
Labour productivity, persons	40	-0,7	0,2	0,4
Compensation of employees	59.741	2,3	2,9	3,3
Compensation per employee	21.385	0,1	1,2	1,4

Sectoral Balances			
(% of GDP)	**2017**	**2018**	**2019**
1. Net lending/borrowing vis-a-vis the rest of the world	0	0,6	1,1
of which			
- Balance on goods and services	-1,1	-0,1	0,2
- Balance of primary incomes and transfers	0,2	0,3	0
- Capital account	0,9	0,4	0,9
2. Net lending/borrowing of the private sector	-0,8	0,2	0,5
3. Net lending/borrowing of general government	0,8	0,4	0,6

Contingent liabilities		
(% of GDP)	**2018**	**2019**
Public guarantees	6,6	3,8
Public guarantees: linked to the financial sector	3,2	0,7

Amounts to be excluded from the expenditure benchmark				
	2017 (Levels)	2017 (% of GDP)	2018 (% of GDP)	2019 (% of GDP)
1. Expenditure on EU programmes fully matched by EU funds revenue	1874	1,05	2,03	1,95
1a. Investment expenditure fully matched by EU funds revenue	1869	1,05	1,97	1,95
2. Cyclical unemployment benefit expenditure	272	0,15	0,13	0,1
3. Effect of discretionary revenue measures	2008	1,13	0,19	-0,22
4. Revenues increased mandated by law	M	M	M	M