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**Country Report Greece 2019
Including an In-Depth Review on the prevention and correction of macroeconomic
imbalances**

Accompanying the document

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN
CENTRAL BANK AND THE EUROGROUP**

**2019 European Semester: Assessment of progress on structural reforms, prevention and
correction of macroeconomic imbalances, and results of in-depth reviews under
Regulation (EU) No 1176/2011**

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CONTENTS

Executive summary	3
1. Economic situation and outlook	7
2. Overall findings regarding imbalances, risks and adjustment issues	14
3. Reform priorities	19
3.1. Public finances and taxation*	19
3.2. Financial sector	24
3.3. Labour market, education and social policies	29
3.4. Competitiveness reforms and investment	43
Annex A: Overview Table	61
Annex B: Commission Debt Sustainability Analysis and fiscal risks	62
Annex C: Standard Tables	63
Annex D: Investment Guidance on Cohesion Policy Funding 2021-2027 for Greece	69
References	75

LIST OF TABLES

Table 1.1:	Key economic and financial indicators - Greece	13
Table 2.1:	MIP assessment matrix - Greece 2019	17
Table 3.2.1:	Financial stability indicators	25
Table C.1:	Financial market indicators	63
Table C.2:	Key Social Scoreboard indicators	64
Table C.3:	Labour market and education indicators	65
Table C.4:	Social inclusion and health indicators	66
Table C.5:	Product market performance and policy indicators	67
Table C.6:	Green growth	68

LIST OF GRAPHS

Graph 1.1:	Real GDP growth	7
Graph 1.2:	Growth contributions and share of tradable sectors within the economy	7
Graph 1.3:	Employment and GDP levels compared to 2009	8

Graph 1.4:	Trend in competitiveness (left) and unit labour cost in Greece, grouped by components and benchmarked against the euro area (right)	9
Graph 1.5:	Current account, government lending (left); net international investment position by economic agents (right)	10
Graph 1.6:	Non-performing loan ratio in the EU (left) and savings and investments by economic agents in Greece	11
Graph 1.7:	Regional convergence within Greece and with respect to the rest of the EU	12
Graph 3.1.1:	Underspending from the public investment budget*, 2012-2017	20
Graph 3.1.2:	Drivers of changes in general government balance, 2019-2022	20
Graph 3.1.3:	"Old debt" collection and "new debt" added	21
Graph 3.3.1:	Total population change	29
Graph 3.3.2:	Activity rate of women in Greece and the EU by age group, 2017	30
Graph 3.3.3:	Education and labour market for youth	30
Graph 3.3.4:	Europe 2020 poverty indicators for Greece	33
Graph 3.4.1:	Investments in Greece by type (left); building permits and residential investments in Greece (right)	43
Graph 3.4.2:	Net foreign direct investments in Greece by economic sector	44
Graph 3.4.3:	Structural and demographic business statistics Employment and productivity according to company size	48
Graph 3.4.4:	Ease of doing business 2018	49
Graph 3.4.5:	Components of the "Ease of doing business 2018" for Greece	49
Graph 3.4.6:	Wage costs in public administration	55

LIST OF BOXES

Box 3.3.1:	Social welfare reforms in Greece	32
Box 3.3.2:	Technical support by the Structural Reform Support Service	41
Box 3.3.3:	Monitoring performance in light of the European Pillar of Social Rights	42
Box 3.4.1:	Investment challenges and reforms in Greece	47
Box 3.4.2:	EU funds and programmes contribute to addressing structural challenges and to fostering growth and competitiveness in Greece.	60

EXECUTIVE SUMMARY

Greece successfully exited the European Stability Mechanism stability support programme on 21 August 2018, marking the beginning of a new era for the country. It is now included in the European Semester for economic policy coordination, while being subject to the enhanced surveillance procedure ⁽¹⁾. Greece has substantially improved its budget balance and current account balance in recent years. However, potential growth has suffered, and large accumulated imbalances remain as a legacy of the economic crisis. These concern the high public debt, the negative net international investment position, the high non-performing loans on banks' balance sheets and the still high unemployment rate. In addition, deep institutional and structural reforms initiated in recent years to modernise the economy and the State, require many years of sustained implementation for their impact to fully unfold.

Potential growth remains low, burdened by the loss of physical and human capital due to the low investment rate and the emigration of skilled workers in the past decade. Unfavourable demographic trends are expected to continue affecting Greece's growth potential. Structural reforms are starting to bear fruit, and their continuation and completion will be essential for unlocking growth potential.

The Greek economy has continued to recover in 2018, in terms of both growth and employment. Real GDP growth is projected to gather pace in 2019 and 2020. Investment is set to become the biggest contributor to GDP growth while the contribution of net exports is expected to stall as domestic demand strongly relies on imports.

⁽¹⁾ This report assesses Greece's economy in light of the European Commission's Annual Growth Survey published on 21 November 2018. In the survey, the Commission calls on EU Member States to implement reforms to make the European economy more productive, resilient and inclusive. In so doing, Member States should focus their efforts on the three elements of the virtuous triangle of economic policy — delivering high-quality investment, focusing reforms efforts on productivity growth, inclusiveness and institutional quality and ensuring macroeconomic stability and sound public finance. At the same time, the Commission published the Alert Mechanism Report (AMR) that initiated the eighth round of the macroeconomic imbalance procedure. The AMR found that Greece warranted an in-depth review, which is presented in this report.

Labour market conditions are expected to continue to gradually improve, though from a very weak base. Following substantial improvements in cost competitiveness over the past decade, wage rises are expected to remain moderate and aligned with productivity growth.

Investment as a share of GDP bottomed out in 2015 and is slowly increasing; but at less than 13% in 2018, it is still the lowest in the EU. Both private and public investment fell significantly during the crisis and foreign direct investment is the lowest in the EU. There have been substantial reforms to improve the business climate and to unlock private investment. While reforms are expected to bear fruit, they need to continue for a long-lasting improvement of the investment environment.

Greece has successfully restored its budget balance and is expected to maintain it over the next years. The headline balance has been in surplus since 2016 and the primary balance (i.e. the overall balance excluding interest payments) target was exceeded for the fourth consecutive year in 2018. The 2019 budget is projected to ensure that the primary surplus target of 3.5 % of GDP in 2019 is met. In the coming years, any fiscal space emerging above the target should provide an opportunity to adopt reforms to make public finances more growth friendly, such as measures already legislated for 2020 to widen tax bases while lowering tax rates on companies and labour.

While the crisis strongly affected all of Greece's regions, disparities between them significantly widened in the past decade. The gap between peripheral regions and Athens has not been bridged and the average Greek region has only 60 % of the capital's GDP per capita. Employment, poverty and social exclusion also have large regional variations.

Several years of underinvestment have led to major investment gaps in Greece. Strengthening investment will be instrumental in underpinning longer-term growth. Priority areas for public and private sector investment include transport and logistics; the sustainable regeneration of urban areas and the most disadvantaged and deprived areas; energy efficiency and infrastructures; environmental protection; digital technologies;

employment, skills, education and training, social inclusion and integration, health and research and development, mainly through the development of smart specialisation strategies in sectors such as agro-food and tourism. Annex D identifies key priorities for support by the European Regional Development Fund, the European Social Fund Plus and the Cohesion Fund for 2021-2027 in Greece, building on the analysis of investment needs and challenges outlined in this report.

Although Greece did not receive country-specific recommendations in 2018, it committed to continue and complete all key reforms adopted under the European Stability Mechanism programme, and it made well-specified commitments to European partners in June 2018. Commitments concern the areas of (i) fiscal and fiscal structural reforms; (ii) social welfare reforms; (iii) financial stability; (iv) labour and product market reforms; (v) State asset management and privatisation; and (vi) reforms of the public administration and justice. The Commission is monitoring these commitments under its ‘enhanced surveillance’ framework. The second quarterly report is being published in parallel to this country report. Greece’s broader reform agenda is set out in the growth strategy of July 2018 and covers similar areas.

On the national targets under the Europe 2020 strategy, Greece is performing well on reducing the rate of early school leavers, increasing tertiary education attainment and reducing greenhouse emissions. It is on track to reach its targets on research and development, the use of renewable energy resources and energy efficiency. By contrast, the employment rate and the poverty reduction fall short of the target.

Greece faces challenges for most indicators of the Social Scoreboard supporting the European Pillar of Social Rights. The rate of unemployment is among the highest in the EU, although there are signs of improvement. The effectiveness and adequacy of social transfers remains a concern, but recent reforms in the social welfare system are expected to improve the situation. Measures have been adopted in recent years to improve the quality of social dialogue, but there is still a need to ensure that social partners are properly involved in national policymaking.

The main findings of the in-depth review contained in this report and the related policy challenges are as follows:

Reducing accumulated imbalances will require many years of sustained implementation of deep institutional and structural reforms initiated in recent years to modernise the economy and the State, as well as many years of sustained growth. This should also reduce Greece’s vulnerability to international developments and increase market confidence. Although significant measures were adopted at the Eurogroup of June 2018 to ensure debt sustainability, interest rate spreads have remained high. This reflects market concerns about the commitment of policy makers in Greece to stick to sound economic and budgetary policies over the medium and long term. High interest rate spreads impede bank lending to non-financial businesses, which would be critical to support an investment-led recovery.

The stock of government debt remains exceptionally high, but the debt measures adopted in 2017 and agreed in June 2018 ensure that the annual debt burden remains at a manageable level. The debt stock stood at over 180 % of GDP at the end of 2018, the highest in the EU. Given the highly concessional terms of the debt, gross financing needs are projected to remain below 15 % of GDP until the mid-2030s thus limiting the risks to debt servicing. Positive assessments of reform implementation under the enhanced surveillance framework will serve as a basis for Greece’s European partners to agree on the implementation of additional debt measures worth about 0.7 % of GDP per year. Private debt stocks (i.e. the liabilities held by non-financial corporations and households) remain contained, although the fundamentals of the economy suggest that the debt capacity of both households and non-financial companies in Greece is particularly low.

Ensuring the sustainability of government debt in the medium and long term will require maintaining fiscal discipline and continuing and completing the fiscal structural reforms initiated in recent years. It will involve full implementation of the 2016 pension reform and completion of the health care reforms. Furthermore, it will include modernisation of the property tax system and usage of emerging fiscal space to shift towards a more growth-friendly tax

structure, and further improving tax collection, by enhanced operational independence of the tax authority. Finally, it will address arrears, further improvement of public financial management, and continuation of improving the management of State assets.

Greece's net international investment position remains highly negative. In spite of the substantial improvement in the current account balance during the crisis and strong growth in exports of goods and services in the past two years, part of the improvement is expected to be reversed as the economy picks up and domestic demand increases. Further reallocation of productive resources to tradable sectors and a reduction of import dependence will be necessary.

Wide-ranging policy measures to ensure financial stability and strengthen the viability of the banking system have helped to stabilise the financial sector. Capital buffers have increased, deposits have stabilised and reliance on central bank funding has decreased. Yet, banks' profitability remains low. Banks' balance sheets remain burdened by very high share of non-performing loans and tackling those remains the most important challenge facing the financial sector in the near and medium term. Ensuring the smooth functioning of the relevant legal framework and toolkit will be critical for banks to continue meeting revised and ambitious targets. The governance of the banking system has improved following an overhaul of the boards of banks.

Reforms of wage negotiations and of other labour market institutions have helped Greece to regain cost competitiveness, and maintaining these gains will be critical to help increase employment and reduce unemployment. The government has increased the minimum wage by 10.9 % as from 1 February 2019. In parallel, the sub-minimum wage for people under 25 years old has been eliminated, leading to a 27 % increase in the minimum wage for this age group. This increase in the minimum wage leads in the medium term to higher risk of negative employment effects, especially on low-skilled, young workers and workers with a long **tenure**. Looking ahead, social partners will play a critical role, in the context of collective bargaining, in ensuring that wage formation takes due account of

the need to protect competitiveness gains and has adequate scope to cater for the specific situation of firms, many of which remain in a distressed financial situation. Other key structural issues analysed in this report, which point to particular challenges for Greece's economy, are the following:

Despite recent improvements, youth unemployment and long-term unemployment are still a serious concern. Women's labour market participation also lags far behind the EU average. To address these issues, the government has started to implement policies to improve employability and promoting labour market participation. In parallel, the government is continuing its fight against undeclared work. Putting in place a comprehensive strategy to improve the efficiency of the education and training system will be critical for reducing skill mismatches and increasing employability, especially that of younger people.

Although still difficult, the social situation is expected to continue to improve in the coming years, thanks to the combined effect of the economic recovery and the social welfare reform. Major steps have been taken to improve the efficiency, effectiveness and adequacy of the social welfare system: the introduction of a guaranteed minimum income scheme, the reform of family benefits and an upcoming new means-tested housing benefit. The completion of the reform of the disability benefit system and the review of the system of subsidies for local public transport could further improve the efficiency of the welfare system.

The significant under-execution of the public investment budget has been a problem for several years. This is due to structural shortcomings in developing projects of investment grade as well as suboptimal budgeting practices. An independent review of the investment budgeting framework will recommend measures to tackle the shortcomings.

Following years of pronounced contraction, bank lending to the private sector continues to be very subdued, though there are slight signs of improvement for large companies. Access to finance remains extremely limited, affecting not only small and medium-size enterprises but also

start-ups and scale-ups, causing liquidity problems and constraining investments.

Continuing the structural reforms in the product markets will be essential for improving the business climate and attracting investment.

Despite broad-based reforms to reduce the administrative burden, increase competition, simplify investment licensing procedures, alleviate disproportionate restrictions to regulated professions, set up a cadastre and improve spatial planning, Greece continues to lag behind EU and global best practices. The authorities are putting in place the remaining steps of the investment licensing reform and setting up the comprehensive property and land register. Full and smooth implementation of the privatisation plan is expected to attract investors.

Reforms of network industries such as energy and transport should reduce costs for customers and lead to improvements in infrastructure.

The energy market remains characterised by a concentrated structure, relatively high wholesale prices and a reliance on fossil fuels. The transport system is largely road-based, dependent on oil-based transport and is characterised by low productivity. The digital transformation of the economy and society remains challenging, with low access to high-speed broadband networks and digital skills well below the EU average.

Weak coordination and low administrative capacity in the public administration remain important bottlenecks, which also hamper business and investment.

The national strategy for administrative reform aims to increase the administration's efficiency through improved processes for managerial appointments and modern human resource practices. The reforms need to be fully implemented and any shortcomings on the appointments of senior managers properly addressed. Greece has updated its national anti-corruption action plan. Thanks to recent reforms, and with the exception of a slight decrease in 2018, Greece has steadily improved its scoring in the Corruption Perception Index over the past years. Nevertheless, the score remains relatively low and issues remain, particularly as regards a weak coordination mechanism of corruption cases, complex immunity and generous statute of limitation regimes, as well as legislative gaps regarding whistle-blower protection.

The Greek judicial system still faces inefficiencies and reforms in this area are critical to the smooth functioning of the financial system and to unlocking investment potential.

Despite recent improvements, the time to reach a decision is often too long and backlogs will require further targeted action. Ongoing reforms aim at reducing the backlog of household insolvency cases and implementing a three-year action plan, which features the creation of an electronic justice system.

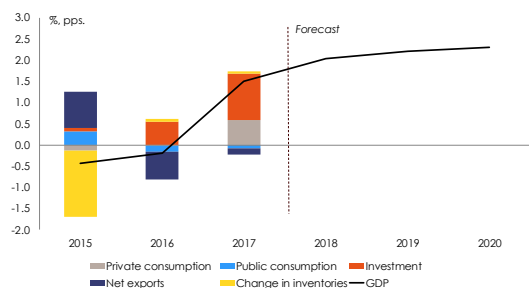
1. ECONOMIC SITUATION AND OUTLOOK

GDP growth

After almost a decade of contraction and stagnation, Greece's economy started to grow again in 2017 and expected to have accelerated in 2018. Following a domestic-demand-led real GDP growth of 1.5% in 2017, growth is forecast to have reached 2% in 2018. Growth is projected to exceed 2% in 2019 and 2020. Investment is expected to drive growth in the next years thanks to reforms and structural adjustments undertaken under the support programme, while growth in private consumption should also provide a steady support.

Private consumption was a major driver of growth in 2018. Private consumption started to recover already in 2017 and is expected to have accelerated further in 2018. Although this improvement is supported by an increase in employment, though with real wage growth remaining subdued, households are still financing part of their spending by drawing on their savings. Despite an improvement since mid-2017, the saving rate of households remained negative — at around -4% in mid-2018.

Graph 1.1: Real GDP growth

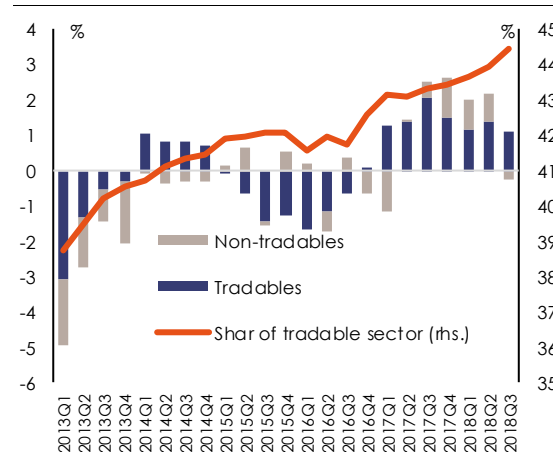


Source: European Commission

The household sector's gross assets are depleting. While private debt stocks are below the EU average and below the threshold envisaged in the scoreboard underpinning the macroeconomic imbalance procedure of 133 % of GDP, the negative savings rate coupled with negative retail credit flows suggest that households are using their assets to finance some of their spending. Moreover, the fundamental aspects of the economy, including high unemployment, low expected income growth, high public debt and the projected increase in the age-dependency ratio,

point to a low debt-servicing capacity of the private sector.

Graph 1.2: Growth contributions and share of tradable sectors within the economy



Tradable sectors: agriculture, industry, trade, tourism, transportation.

Growth contributions refer to the annual growth of gross value added.

Source: Commission departments

Exports provided a major contribution to growth in 2018 too. The tourism industry recorded a very good year and the country's exports of goods increased rapidly as well. However, import growth was moderated because of the subdued domestic investment demand. The tradable sectors have steadily increased their shares in the economy and generated most of the growth since 2017. The expansion of Greece's export capacities is expected to ease the pressure on the current account balance as demand for imports increases with the economic recovery.

The investment-to-GDP ratio is still very low in particular due to a weak investment appetite in the private sector. Investment used to account for more than 25 % of GDP in the pre-crisis years while in 2018 it accounts for below 15 % of GDP, mostly due to the fall in housing investments. Investment in the construction sector is increasing but investment in equipment decreased significantly in 2018 compared to 2017. Both residential and non-residential construction activity increased in 2018, albeit from a very low base (see Section 3.4.1), meaning that their growth contribution is limited. Public investment is also lagging behind the pre-crisis levels. The investment-gap indicates that there is ample room

for recovery if the business climate improves. Investment recovery is expected to be supported by the reform of the investment-licensing framework and by numerous other reforms that were adopted to improve the business environment. It will also hinge on the banking sector's ability to provide companies with credit over the coming years. New investments through the privatisation programme and new foreign direct investment could support the economic recovery. The additional income and productive capacity associated with these investments could lead to higher levels of employment, income and private spending.

Potential growth

Implementing the reforms may help mitigate future challenges. Unfavourable demographic trends are expected to weigh on Greece's growth potential. In the past years, the country faced a loss of physical and human capital due to a low investment rate and emigration of skilled workers. However, recent labour and product market reforms and the commitment of the Greek authorities to continue with the reforms initiated under the European Stability Mechanism programme – which are also reflected in their National Growth Strategy – have the potential to raise future productivity by improving the business and regulatory environment, reducing prices through increased competition, and strengthening governance and the justice system. The resulting increase in domestic and foreign investments, embedding state-of-the-art technologies and best practices, could thus start a virtuous circle of development attracting talents back into the country and providing opportunities for productive and rewarding jobs.

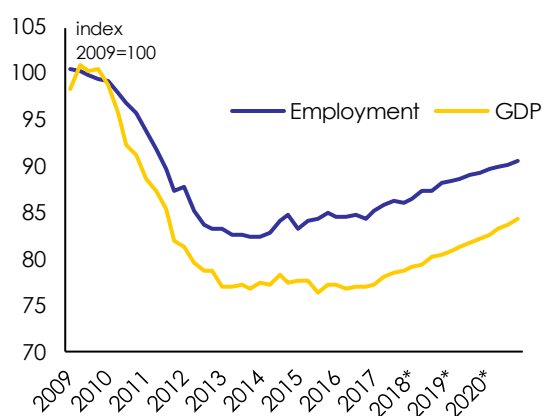
However, the measurement and assessment of potential growth based on recent trends is particularly uncertain in an economy that is undergoing such a deep structural change as that of Greece.

Inflation

Inflation decreased in 2018. Inflation, measured in terms of the harmonised index of consumer prices (HICP), reached 1.1 % in 2017 and was positively affected by increases in indirect taxes. In 2018, the effect of the tax changes dissipated and

headline inflation decreased to 0.8 %. Net of the tax effects, inflation rose moderately in 2018, reaching 0.7 %, up from 0.3 % in 2017. This increase is mainly due to an increase in energy prices, as core inflation in 2018 reached only 0.5 % thereby remaining under its 2017 value of 0.6 %. Inflation is expected to remain subdued in 2019, as the decline in energy prices are to compensate the effect of rising core inflation. From 2020, inflation is expected to increase as energy prices stabilise and core inflation rises in tandem with the economic recovery. Inflation is set to increase further in subsequent years and reach nearly 2 % by 2023.

Graph 1.3: **Employment and GDP levels compared to 2009**



Source: Commission departments

Labour market

Labour market conditions are set to continue to gradually improving though from a very weak base. The recovery of employment levels started in 2014, ahead of the recovery in the country's economic growth. This suggests that labour market reforms have had a positive impact. The unemployment rate has also been decreasing steadily, from its peak of 27.9 % in September 2013, down to 18.5 % (November 2018). These positive developments are expected to continue steadily in line with the sustained economic recovery. Employment growth is expected to reach 1.8 % in 2019 and 1.4 % in 2020, and the unemployment rate is projected to fall to around 16 % by the end of 2020. Despite the substantial improvement, Greece continues to have one of the highest unemployment rates in the EU, which

exceeds the pre-crisis level by about 10 percentage points. Particularly worrying is the very high share of long-term and very-long term unemployed (73 % have been unemployed for more than 1 year and half of them have been out of work for more than 4 years). The employment rate (59.3 %) is very low and significantly below the EU average (73.2%) but the activity rate, which remained rather stable during the crisis, is now about 2 percentage points higher than in 2008.

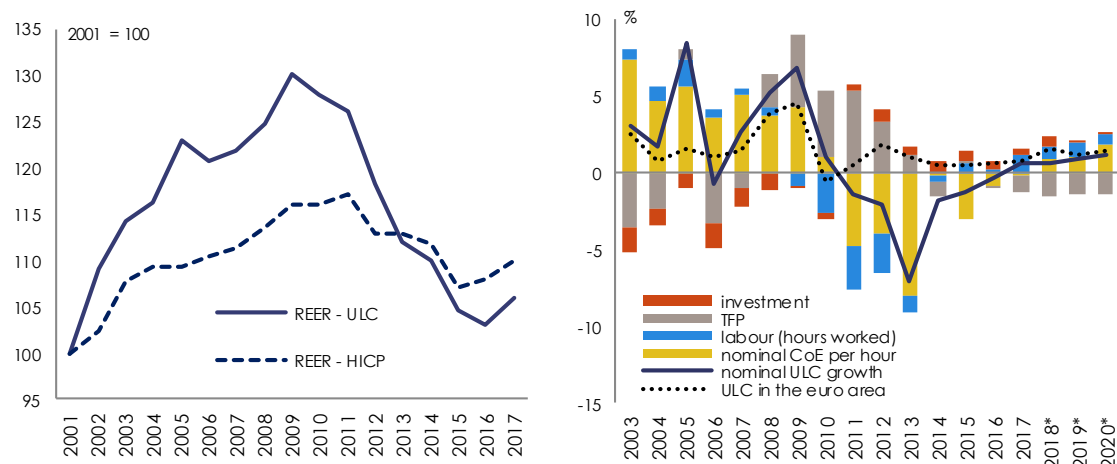
Social development

Despite recent improvements, the social consequences of the crisis are still visible in all social indicators. The strong increase in unemployment and the limited capacity of the Greek welfare system to protect against poverty had led to a strong reduction in households' disposable incomes and to a sharp increase in poverty. In particular, in 2016 severe material deprivation had reached a peak of 22.4 %, up from 11 % in 2009, amongst the highest rates in the EU and about 3 times the EU average. However, the social situation 2017 improved in 2017 with the indicator of deprivation dropping to 21.1%. The reduction in incomes was broadly proportional across the income distribution. Therefore, over the same period income inequality, which was amongst the highest in the EU already before the crisis, did not evolve substantially. The social

situation started to improve from 2017, thanks to the gradual labour market recovery and in light of the reforms, which strengthened the Greek social welfare system (with flash estimates for 2018 pointing to a further decline in the risk of poverty).

Wage growth is expected to be positive but moderate, as the still very high unemployment is gradually reabsorbed. Following a strong wage adjustment during the crisis to regain competitiveness, with compensation per employee decreasing by 19.4 % in nominal terms since 2009, the wage adjustments came to a halt in 2017. Growth in nominal compensation per employee (which stood at 0.5 % in 2017) is forecast to have remained just below 1 % in 2018, and to rise only very gradually afterwards due to the considerable slack in the labour market, with still very high unemployment and modest labour demand. At the same time, wage developments will depend on the outcome of renewed collective bargaining negotiations (with sectoral agreements being once again the predominant level of bargaining). Further upward pressures may arise from policy decisions on the increase of the minimum wage, and in particular with the abolition of the sub-minimum wage for youth under 25 years of age.

Graph 1.4: **Trend in competitiveness (left) and unit labour cost in Greece, grouped by components and benchmarked against the euro area (right)**



The real effective exchange rate (REER) is the weighted average of a country's competitiveness level in relation to an index. Among other methodologies, it can be measured in terms of unit labour costs ('REER — ULC') or price levels ('REER — HICP'). 'TFP' is total factor productivity, estimated empirically for the purposes of this table as the difference of the output increase that can be attributed to simple factor accumulation and the observed increase in output. 'CoE per hour' is the compensation of employees per hour worked.

Source: Commission services

Competitiveness

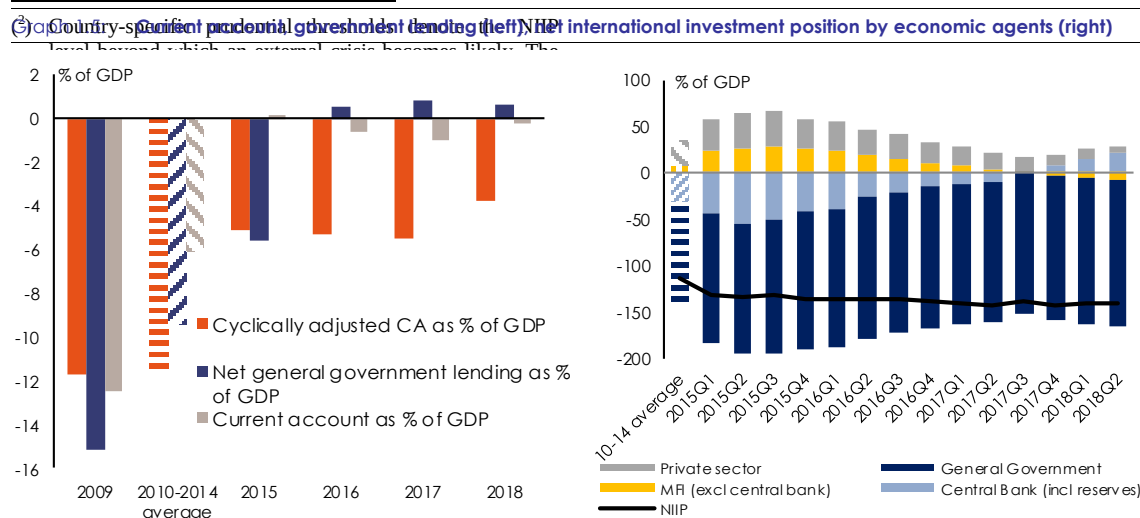
Following a substantial adjustment in unit labour costs (ULC) since the beginning of the crisis, they have broadly stabilised since 2016. A moderate increase is expected in 2018 as hourly wage is expected to start to rise. Given the persistently low investment rate, capital depletion is expected to continue to negatively affect the unit labour cost in 2018. The modest overall increase in 2017 and 2018 is still below the euro area's (EA-19) growth rate. This increase should not erode the competitiveness gains of the past years. Increases in total factor productivity and in the investment rate are predicted to be high enough to offset the emerging trends of nominal hourly wage increases and reductions in working hours and to maintain the recent gains in competitiveness by keeping any raises in unit labour costs in line with euro area developments.

External position

There has been a major adjustment in Greece's external position since the beginning of the crisis, as its current account balance swung from deficits above 15 % of GDP in 2008/2009 to small surpluses in 2015/2016. The legacy of these large past deficits is currently reflected in the very negative net international investment position (NIIP), which hovers around 140 % of GDP in the second quarter of 2018 and is still significantly higher than the prudential thresholds ⁽³⁾ and the

level that would be in line with the fundamentals of the economy ⁽³⁾. While the composition of the net international investment position stock is generally favourable in terms of short-term sustainability, as most liabilities are in the form of public debt obtained at concessionary terms during the assistance programmes, further adjustment efforts would be needed to ensure sustainability in the medium and long term. Taking into account that demand for imports is muted due to the relatively low levels of investment and consumption at present, the cyclically adjusted current account would still show a significant deficit of 5 % of GDP. This implies that future increases in investment and living standards will necessitate comparatively larger increases in exports to keep the current account balance in check. To ensure that the economy is resilient to future shocks, the net international investment position should converge towards the prudential level compatible with the characteristics of the Greek economy.

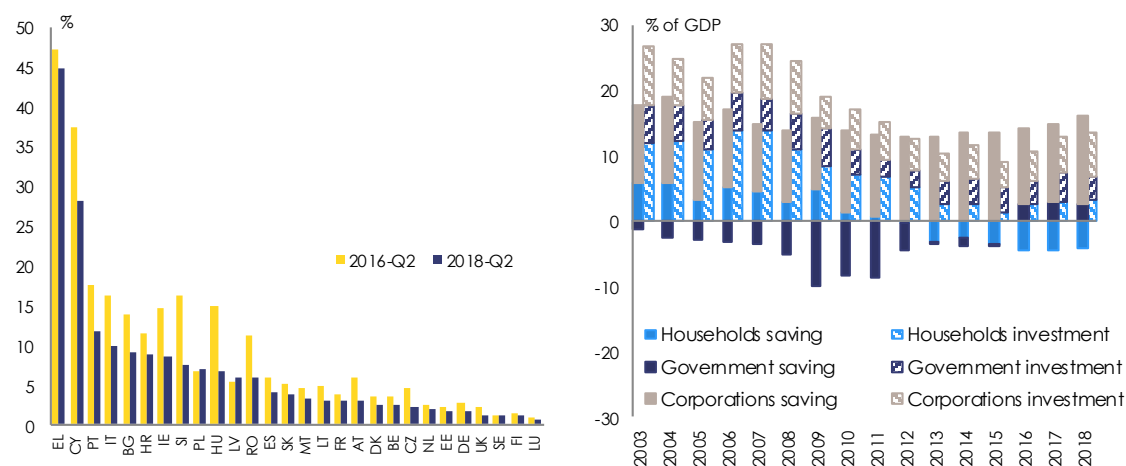
⁽³⁾ The current account 'norm' benchmark for Greece is 48% and it is derived from regressions capturing the main fundamental determinants of the saving-investment balance (e.g. demographics, resources), as well as policy factors and global financial conditions. For details regarding the estimation of current accounts based on fundamentals, see Coutinho et al. (2018).



CA = current account; MFI = monetary financial institutions which are resident credit and financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs. "NIIP" stands for "net international investment position", which is a nation's stock of foreign assets minus its foreign liabilities.

Source: Commission services

Graph 1.6: Non-performing loan ratio in the EU (left) and savings and investments by economic agents in Greece



Source: European Central Bank and Commission services

Such convergence could be achieved in full with an annual current account surplus of 6.4 % for 10 years. Half of the gap could be filled in 10 years with annual current account surplus of 1.8 %.

Public finances

Greece is expected to meet its fiscal targets in 2018 and 2019. Taking into account the package of measures incorporated into the 2019 budget, the headline balance is forecast to reach a surplus of 0.6 % of GDP in 2018 and 0.2 % of GDP in 2019. In terms of the primary surplus monitored under the enhanced surveillance framework, this corresponds to a primary surplus of 3.7 % of GDP in 2018 and 3.5 % of GDP in 2019⁽⁴⁾. Public debt is forecast to have peaked in 2018 and is expected to decrease swiftly in the near future supported by economic recovery and the projected surpluses in the general government balance.

Financial sector

The Greek financial sector still suffers from the highest ratio of non-performing loans (NPLs) on total exposures in the European Union. Even though the ratio has begun slowly decreasing since its peak in 2016 Q4, sustained efforts are needed to speed up its reduction. High non-performing loans ratios weigh considerably on bank performance and tie up significant amounts human and financial resources, thus reducing lending capacity and the

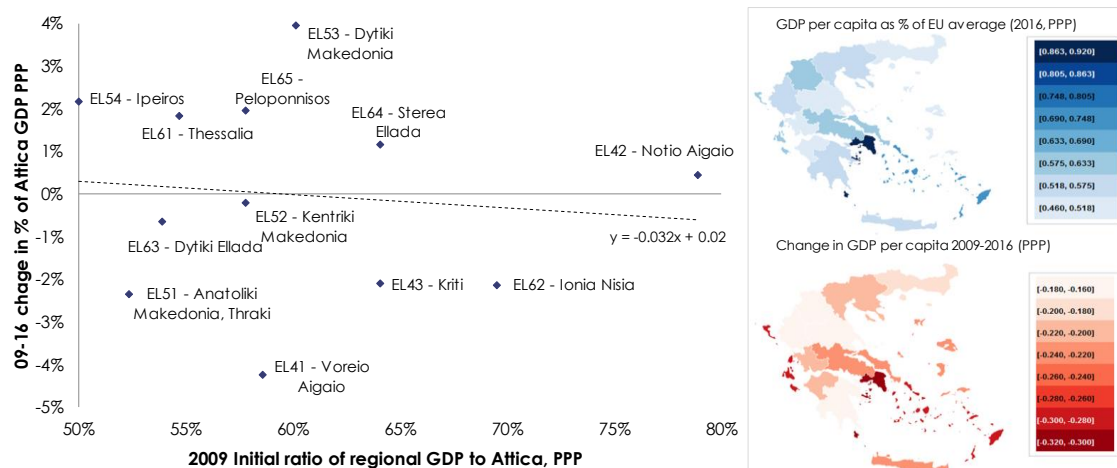
capacity of businesses to invest. A number of initiatives has also been introduced to tackle this issue, as discussed in Section 3.4.2. The need for a healthy and liquid banking sector is even greater considering that households are increasingly drawing on their savings to consume, which reduces the amount of domestic resources to finance investments. This factor is only partly offset by higher corporate and public savings.

Regional disparities

Insufficient convergence is observed between peripheral regions and Athens, with the average Greek region having on average only 60 % of the capital's GDP per capita. The average annual improvement in the gap is negligible, at just 0.2 % of GDP, implying that at this pace it would take more than 200 years for the average Greek region to reach the income level of the capital region. The crisis hit all parts of Greece to a similar extent and did not contribute to reduce territorial disparities within the country. In fact, while the GDP per capita in the greater Athens area fell from 124 % of the EU average in 2009 to 92 % in 2016, following the adjustment in sectors such as construction, financial services and public administration, the other regions in Greece also contracted, to a lesser extent but starting from a lower base.

⁽⁴⁾ See Commission Opinion on the Draft Budgetary Plan of Greece, C (2018)8016.

Graph 1.7: Regional convergence within Greece and with respect to the rest of the EU



See the left pane for convergence in PPP GDP per capita of Greek regions with Athens in the period 2009-2016. The horizontal axis reports the NUTS2 regional income as a share of per capita income in Attica in 2009. The vertical axis shows the change between 2009 and 2016. The dashed line is the interpolation of the data points, showing the unconditional beta convergence parameter over the seven-year period as its slope (see Monfort, 2009; Persyn and Algoed, 2011, for a discussion of the concept of beta convergence). "PPP GDP" is the Purchasing Power Parity Gross Domestic Product, correcting the region's income level by the local price level. NUTS2 is the second level of disaggregation of the "Nomenclature of Territorial Units for Statistics". It generally covers the 273 basic regions of the EU identified for the application of regional policies.

Source: NUTS2 regional data are retrieved from Eurostat, data code 'nama_10r_2gdp', variable 'PPS_HAB_EU - Purchasing power standard (PPS) per inhabitant in percentage of the EU average'. The maps are drawn using a software application developed by the Regional Modelling team of European Commission's Joint Research Centre, Territorial Development unit.

Table 1.1: Key economic and financial indicators - Greece

	2004-07	2008-12	2013-15	2016	2017	forecast		
						2018	2019	2020
Real GDP (y-o-y)	3.6	-5.4	-1.0	-0.2	1.5	2.0	2.2	2.3
Potential growth (y-o-y)	2.8	-1.1	-2.3	-1.5	-1.0	-0.8	-0.3	0.0
Private consumption (y-o-y)	3.4	-4.6	-0.7	0.0	0.9	.	.	.
Public consumption (y-o-y)	5.1	-3.6	-2.1	-0.7	-0.4	.	.	.
Gross fixed capital formation (y-o-y)	5.8	-17.1	-4.2	4.7	9.1	.	.	.
Exports of goods and services (y-o-y)	9.3	-2.2	4.1	-1.8	6.8	.	.	.
Imports of goods and services (y-o-y)	8.3	-8.5	1.8	0.3	7.1	.	.	.
Contribution to GDP growth:								
Domestic demand (y-o-y)	4.6	-7.3	-1.5	0.4	1.6	.	.	.
Inventories (y-o-y)	-0.3	-0.4	-0.2	0.1	0.0	.	.	.
Net exports (y-o-y)	-0.8	2.3	0.6	-0.7	-0.1	.	.	.
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	0.5	-0.1	-0.4	-0.3	-0.1	-0.2	-0.1	-0.1
Capital accumulation (y-o-y)	1.0	0.1	-0.5	-0.4	-0.3	-0.3	-0.1	0.0
Total factor productivity (y-o-y)	1.4	-1.2	-1.4	-0.7	-0.5	-0.3	-0.1	0.1
Output gap	3.5	-5.5	-13.7	-10.8	-8.6	-6.0	-3.8	-1.9
Unemployment rate	9.5	14.5	26.3	23.6	21.5	19.6	18.2	16.9
GDP deflator (y-o-y)	3.1	1.6	-1.5	-0.2	0.6	0.5	1.1	1.2
Harmonised index of consumer prices (HICP, y-o-y)	3.2	2.9	-1.1	0.0	1.1	0.8	0.7	1.3
Nominal compensation per employee (y-o-y)	5.1	-0.5	-4.0	-0.9	0.5	0.9	1.3	2.0
Labour productivity (real, person employed, y-o-y)	2.0	-2.4	-0.7	-0.7	0.0	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	3.1	2.0	-3.4	-0.3	0.6	0.6	0.9	1.2
Real unit labour costs (y-o-y)	0.0	0.4	-1.9	0.0	0.0	0.1	-0.2	-0.1
Real effective exchange rate (ULC, y-o-y)	1.6	-0.6	-4.0	-1.2	1.5	1.0	-1.8	-1.5
Real effective exchange rate (HICP, y-o-y)	0.2	-0.2	-1.9	1.2	0.7	2.0	-1.8	-1.7
Savings rate of households (net saving as percentage of net disposable income)	-0.7	-6.3	-15.2	-17.0	-16.9	.	.	.
Private credit flow, consolidated (% of GDP)	14.5	1.6	-3.5	-2.1	-0.8	.	.	.
Private sector debt, consolidated (% of GDP)	88.3	123.9	128.8	124.0	116.4	.	.	.
of which household debt, consolidated (% of GDP)	37.7	58.2	63.4	60.0	56.2	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	50.7	65.7	65.4	64.0	60.2	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	.	.	.	.	.	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	5.1	7.5	12.9	6.5	6.1	7.8	6.8	6.4
Corporations, gross operating surplus (% of GDP)	19.0	18.5	19.4	18.2	18.4	18.5	18.6	18.8
Households, net lending (+) or net borrowing (-) (% of GDP)	-7.9	-5.5	-4.8	-6.7	-6.9	-7.4	-6.4	-5.5
Deflated house price index (y-o-y)	4.6	-7.0	-5.9	-1.7	-1.6	.	.	.
Residential investment (% of GDP)	9.9	5.5	1.3	0.6	0.6	.	.	.
Current account balance (% of GDP), balance of payments	-10.8	-10.5	-1.5	-1.7	-1.8	-0.2	-0.2	0.3
Trade balance (% of GDP), balance of payments	-9.1	-7.8	-1.7	-0.7	-0.5	.	.	.
Terms of trade of goods and services (y-o-y)	-0.1	-0.7	2.7	-0.4	-0.4	-0.6	-0.3	0.2
Capital account balance (% of GDP)	1.4	1.2	1.4	0.6	0.5	.	.	.
Net international investment position (% of GDP)	-79.7	-93.4	-132.6	-137.8	-140.5	.	.	.
NIIP excluding non-defaultable instruments (% of GDP) (1)	.	-95.3	-128.7	-127.2	-126.4	.	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (1)	.	188.2	242.5	244.6	223.5	.	.	.
Export performance vs. advanced countries (% change over 5 years)	13.6	-3.6	-15.9	-21.2	-5.7	.	.	.
Export market share, goods and services (y-o-y)	.	.	-3.8	-4.5	5.6	.	.	.
Net FDI flows (% of GDP)	0.1	-0.1	-0.4	-2.3	-1.5	.	.	.
General government balance (% of GDP)	-6.9	-11.1	-7.4	0.5	0.8	0.6	0.6	0.6
Structural budget balance (% of GDP)	.	.	3.4	5.5	5.0	4.3	2.5	1.6
General government gross debt (% of GDP)	104.2	142.8	177.4	178.5	176.1	182.5	174.9	167.4
Tax-to-GDP ratio (%) (3)	32.9	35.1	39.0	41.8	41.8	41.2	39.9	39.4
Tax rate for a single person earning the average wage (%)	18.0	21.2	24.9	25.4	.	.	.	.
Tax rate for a single person earning 50% of the average wage (%)	16.0	17.0	16.0	15.8	.	.	.	.

(1) NIIP excluding direct investment and portfolio equity shares

(2) Domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.

(3) The tax-to-GDP indicator includes imputed social contributions and hence differs from the tax-to-GDP indicator used in the section on taxation.

Source: Eurostat and ECB as of 31-1-2019, where available; European Commission for forecast figures (Winter forecast 2019 for real GDP and HICP, Autumn forecast 2018 otherwise)

2. OVERALL FINDINGS REGARDING IMBALANCES, RISKS AND ADJUSTMENT ISSUES

Introduction

The 2019 Alert Mechanism Report concluded that a new in-depth review (IDR) should be undertaken for Greece to examine the possible existence of imbalances (European Commission, 2019d). An IDR was not prepared for Greece in 2018 ⁽⁵⁾. This chapter summarises the findings of the analyses in the context of the macroeconomic imbalance procedure (MIP) in-depth review that is contained in various sections in this report ⁽⁶⁾.

Imbalances and their gravity

Greece currently has large debt stocks, which are slowly unwinding. High levels of public and external debt, combined with high non-performing loans (NPLs) in the banking system, expose the country to adverse shocks with potentially harmful implications for the real economy. Subdued nominal growth in recent years also reduced the scope for passive deleveraging.

Greece has the highest gross public debt in the EU. Public debt stood at 176.1 % of GDP at the end of 2017 and it is expected to have further increased in 2018, due to the large disbursement at the end of the European Stability Mechanism programme. Despite the high stock of debt, refinancing or debt servicing risks in the coming years are limited, as most of this debt was attributed at highly concessional terms and with a delayed repayment schedule.

Greece also has a very large stock of external liabilities, which is primarily driven by foreign sovereign indebtedness. Greece's net investment position (NIIP) stood at -140.5 % of GDP in 2017, the second highest in the EU. This stock is mainly composed of debt instruments, primarily related to

public debt (see Section 1). Such vast liabilities expose Greece to adverse external shocks and sentiment shifts.

The external flow balances have substantially improved but the external position remains weak, rendering the economy vulnerable to shocks. Although the current account balance in 2017 recorded a mere 1 % deficit, the cyclically adjusted current account shows a deficit of 5.5 %, which is higher than what is required to keep the net international investment position at least stable in the next 10 years.

The banking sector is burdened by a high stock of non-performing loans, which affects the profitability of banks. Although private debt stocks are contained, the fundamentals of the economy, including currently high unemployment, public debt, and the projected increase in the age-dependency ratio, imply that the debt capacity of both households and non-financial corporations in Greece is particularly low (see Section 3.2.1).

Potential growth has been significantly limited by the ageing population, migration and the depletion of capital stock. The protracted crisis has weighed heavily on Greece's growth potential, which is also reflected in decreasing labour productivity. Structural reforms implemented over the past years are expected to impact positively on productivity in the years to come (see Section 3.4.2). Low potential growth may represent a strong constraint on the deleveraging process.

The labour market has been performing better than expected, but there is still a large gap compared with the pre-crisis situation and with the rest of the EU. Greece continues to have the highest unemployment rate and the lowest employment rate in the EU. Youth unemployment and long-term unemployment still need attention. In addition, due to its geographic position, Greece is highly affected by migration flows. However, Greece is no longer a pure transit country but has also become a settlement country as shown by the rising proportion of non-EU-born people in its population (8.4 %). This development brings a number of challenges, particularly in the area of employment and social policies (see Section 3.3).

⁽⁵⁾ Greece was not in MIP and European Semester until 2018 in light of the presence of a macroeconomic adjustment programme linked to financial assistance, Regulation (EU) 472/2013.

⁽⁶⁾ Relevant analyses can be found in the following sections: Public finances and taxation are covered in Section 3.1; financial sector: banking sector, access to finance, indebtedness, non-performing loans in Section 3.2; labour productivity in Section 3.3; and investment: external competitiveness, private and public investment, business environment are covered in Section 3.4.

Evolution and prospects

The current account deficit has improved during the crisis. Before and during the first years of the crisis, Greece's current account deficits were in double digits (more than 15 % of GDP in 2007 and 2008). By 2017, the current account balance adjusted to reach a deficit of 1 % of GDP ⁽⁷⁾.

Even though part of the adjustment is due to a cyclical contraction in domestic demand, past improvements in external competitiveness are starting to bear fruit. In addition to significant price adjustments in terms of real effective exchange rates (see Section 1), a number of reforms have been put in place under the European Stability Mechanism programme to open up the Greek economy and improve the efficiency of product and labour markets. The new framework is expected to: (i) ease the administrative burden; (ii) increase competition in key sectors; (iii) simplify investment licencing procedures; (iv) alleviate disproportionate restrictions to regulated professions; (v) open up the energy market, (vi) set up a cadastre and improve spatial planning; and (vii) ensure a better functioning labour market in the context of a modern social safety net.

Greece's goods exports recovered significantly in 2017-2018, reaching historically high levels in 2018. Tourism also recorded double-digit growth for two years in a row (2017 and 2018). Yet, this favourable development indicates that, barring massive investment, there may be limited potential left for growth in this sector. Nevertheless, in 2018 Greece managed to reverse its decade-long trend of falling world export shares and is currently enjoying a broad-based expansion, in terms of destination markets and economic sectors. Greece is also receiving a historically high level of foreign direct investments, albeit from a very low base (see Section 3.4.1). Given the limited fiscal space and reduced capacity of the private sector to leverage further, attracting foreign direct investments could be crucial to the adjustment process.

⁽⁷⁾ This figure does not yet take into consideration the November 2018 revision of the Balance of Payments data, which will be officially incorporated by ELSTAT in the September 2019 scheduled benchmark revision. As a result of the revision, the current account deficit would be somewhat larger.

The economy is undergoing both a structural change and a strengthening recovery, and both affect the prospects of the current account development. The recovery may generate increased import demand for investments and final consumption, thereby increasing the current account deficit. However, the increasing share of the tradeable sector in the Greek economy may improve the balance. In addition, the debt measures agreed at the Eurogroup in June 2018 that resulted in moderate foreign debt servicing costs, help Greece keep a lower current account deficit.

Public debt is expected to decline gradually over the coming years and the pace of this decline will depend on compliance with fiscal targets. Given the composition of the debt stock, vulnerability to higher financing costs will only increase in the long term, while gross financing needs are projected to remain below 12 % until 2033 ⁽⁸⁾. Greece's sovereign long-term credit ratings have improved, but are still below investment grade for all major rating agencies. Maintaining the downward adjustment in public debt through fiscal prudence is also crucial to improve external sustainability, given the large share of public debt in total foreign liabilities.

The high stock of non-performing loans remains a key weakness in the financial system. After peaking in 2016 and 2017 for corporations and households, the ratio of non-performing loans to total credit is slowly decreasing, but is still one of the highest in the EU (as described in Section 3.2.1). Restructuring plans are being implemented by the four systemic banks to tackle the problem faster. These restructuring plans are supported by Greece's implementation in recent years of wide-ranging policy measures to safeguard financial stability and strengthen the viability of the banking system.

Potential growth and productivity are expected to increase in the medium term if reforms are implemented and the economic environment remains favourable. The ageing and shrinking of capital stock due to low investment is expected to

⁽⁸⁾ Note that the debt measures granted in June 2018 ensure medium term sustainability, and the Eurogroup committed to the possibility further debt measures to be assessed in 2032, when current deferrals end.

be reversed thanks to improvements in the business environment and the increase in foreign direct investments. The outflow of skilled and unskilled workers due to decreasing nominal wages and high unemployment rates is also expected to go down as wages and labour productivity increase, unemployment decreases and employment rates rise. In addition, the reduced administrative burden to set up a company and the product and labour market reforms are also expected to stimulate competition and business innovation, bringing new competitors to the market. As a result of these factors, potential growth and productivity are expected to increase accordingly in the future.

Employment growth turned positive already in 2014 and gained further traction in 2017-2018, but the level of employment is still considerably below the pre-crisis levels. The unemployment rate has steadily decreased since the end of 2014, reaching 18.6 % in September 2018 from the peak of 27.5 % in 2013.

Wages have started to rise only recently. The nominal wage growth resumed in 2017 and has so far developed in line with productivity, inflation and unemployment. Compensation of employees per hour worked is significantly below the EU average, reflecting relatively low productivity levels. Wage-setting and employment protection arrangements were fundamentally reformed during the crisis years to facilitate adjustment by firms, better align wages and productivity and thus restore competitiveness. Following the end of the European Stability Mechanism programme, sectors are expected to become again the main level of bargaining with the reintroduction of the possibility of extensions and the favourability principle, and a new procedure for setting the minimum wage will be applied for the first time. These developments merit close attention, as strong wage increases could hamper job creation for the most vulnerable groups.

Overall assessment

Greece faces several sources of macroeconomic imbalances and adjustment is ongoing. Progress has been achieved in a number of areas, including the current account, labour market and external competitiveness. Deleveraging in the private sector is progressing and banks are reducing their non-

performing loans. Public debt is expected to decrease steadily in the next years, benefiting from favourable economic conditions and the projected developments in the fiscal balance. Two areas that are the slowest to adjust are the net external position, where the pace of improvement has been weak, and productivity, which is yet to pick up.

Stock imbalances are still high despite positive flows. Although all the main indicators point to stocks of imbalances moving in the right direction, they still fall significantly short of the relevant benchmarks. The main vulnerabilities relate to the high stock of public debt and external liabilities. The recent reduction in non-performing loans and unemployment are slowly helping reduce the balance of risks. The main challenges are now concentrated on the implementation of reforms legislated during the programme years in order to enhance investment and boost productivity in a sustainable way.

Effectively implementing and deepening the policy measures in place is essential to further reduce the imbalances. Notable progress has been made in some areas of business environment and administrative burden, such as the smooth implementation of electronic one-stop shops for business registration and the reform of licensing and inspection procedures. However, some issues such as the overlapping of multiple nuisance classifications for business establishment still hinder entrepreneurship and discourage investments. Product and labour market reforms were put in place during the programme years and their implementation is being monitored as part of the post-programme enhanced surveillance. Compliance with fiscal targets is expected to foster the sustainability of public debt in the medium-to-long term, while wide-ranging measures have been taken to support the stability and efficiency of the financial sector.

Table 2.1: MIP assessment matrix - Greece 2019

	Gravity of the challenge	Evolution and prospects	Policy response
Imbalances (unsustainable trends, vulnerabilities and associated risks)			
External sustainability and competitiveness	Greece has a high stock of net external liabilities (-141% of GDP in 2017), mainly composed of debt instruments. In spite of the high proportion of public debt, this exposes Greece to adverse shocks or shifts in market sentiment. The current account balance stood in 2017 at -0.9% of GDP, which in cyclically adjusted terms represents a balance of -4.8%. This cyclically adjusted balance is only about what is required to stabilize the NIIP at its current level.	The current account balance has improved significantly since its trough of -15.8% in 2008, but has never reached a positive balance. In cyclically adjusted terms the current account balance remains below what can be explained by fundamentals and below what is required to halve the gap between Greece's NIIP and its prudential threshold. Net export growth has been subdued due to a high import content of exports and investment. The growth rate of exports has been below world export growth, implying declining market shares in 2015 and 2016, but the trend has been reversed in 2017. There have been important gains in cost competitiveness since 2011 but nominal unit labour cost growth was again positive in 2017 at 0.9%, mostly due to negative labour productivity growth and inflation. Corporations (financial and non-financial) contributed most to support net savings, while household savings remain low. (see Section 1)	Measures have been taken during the ESM programme to restore competitiveness, including sweeping business environment and administrative burden reforms. In addition, product and labour market reforms have been enacted during the ESM programme to support cost competitiveness gains while favouring entrepreneurship and productivity gains looking forward.
Public debt	Greece has a high level of public debt, amounting to 178.6% in 2017. According to the Commission Spring Forecast it is projected to drop to 177.8% and 170.3% of GDP in 2018 and 2019, respectively (see Section 3.1). A large stock of public debt is a burden on the economy and makes Greece vulnerable to changes in financial or economic conditions and increasing financing costs in the long run. However, given the unique composition of Greece's public debt and the debt measures agreed at the Eurogroup, Greece's gross financing needs are expected to remain below 12% of GDP until 2033 (see Section 3.1).	The public debt ratio declined in 2017 from its peak of 180.8%, as a result of the budget surpluses achieved in 2016 and 2017. Standard debt sustainability analysis indicates that without further consolidation measures, debt would still be above 125% in 2027 (see Box 3.1.2).	Greece has committed to achieving primary surplus targets of 3.5% of GDP until 2022, which together with the debt relief measures agreed by the June 2018 Eurogroup, will be instrumental to setting the debt-to-GDP ratio on a declining path.

(Continued on the next page)

Table (continued)

Financial sector	The banking sector is burdened by a high stock of NPLs (53.9% for NFCs loans and 46.3% for household loans in 2016) and provisions weigh on the profitability of banks, which is still negative in 2018. Bank average capitalisation is slightly below 16% as of 2018Q2, although the quality of the capital remains weak. Private debt stocks are below the scoreboard threshold of 133%, but the fundamentals of the economy imply that the debt repayment capacity of both households and NFCs in Greece is particularly low. Household debt in particular is above both prudential and fundamentals-based benchmarks (see Section 1). NFCs have overall undertaken sufficient deleveraging, however, the high stock of NFCs NPLs indicates that some reallocation of resources within the sector needs to take place.	The NPL ratio for NFCs has peaked in 2016 Q4 and has since started to slowly decline. For household loans the NPL ratio peaked in 2017 Q3. Both ratios remain high and are declining at a relatively slow pace. Households continue to actively deleverage, with nominal growth providing only a very limited support to the deleveraging process. Deleveraging needs of the household sector are assessed to be still relatively high, in view of the country's specific characteristics, including high unemployment, high government debt and low potential growth (see Section 3.2.3). The reduction of non-performing loans continue to be hampered by poor contract enforcement, inefficiencies in the judicial system, bottlenecks in the implementation of the foreclosure and insolvency legislation and lack of reliable information on borrowers.	Wide-ranging measures were taken under the programme to enhance the framework for NPL resolution (see Section 3.2), including quantitative targets for reductions. In addition, the process will be facilitated by recent reforms of the judicial system, foreclosure and insolvency legislation and improvements in the collection and analysis of information on borrowers. These measures should have a positive impact on NPLs, as well as access to finance.
Potential growth and productivity	Ageing population and dismal labour productivity indicate low potential growth, in the absence of strong effects from structural reforms. Nominal growth, that would help to mechanically reduce debt-to-GDP ratios, is also not favoured by the still low inflation rate, which is expected to moderately increase from 0.7% in 2017 to 1.3% in 2019 (GDP deflator growth). Potential growth is set to increase to around 1% in the long term, contingent on sustained implementation of sound policies.	Investment has increased in 2017 by 9.6% but from a very low level. Investment growth is forecast to increase further in 2018 and 2019 to 10.3% and 12.1%, respectively. Productivity growth has been negative since 2008, in a context of depleting human and physical capital due to skilled migration and lack of investments. However, in 2017 and 2018 productivity turned positive again (see Section 1) and investments and human capital will benefit from the economic stabilisation.	In addition to measures to enhance sustainability and competitiveness, an increase of competition in product markets due to recent reforms is expected to improve the productivity prospects for the future (see Section 3.4). To this end, strong commitment to sustain reform is indicated in the National Growth Strategy. Furthermore, the on-going simplification of procedures to set up enterprises, such as one-stop-shops for business registration, should support the entry of new competitors.
Adjustment issues			
Labour market and unemployment	Unemployment in 2017 was 21.5%, the highest in the EU, with a long-term component of 72.6%. Youth unemployment is also the highest in the EU (43.6%) and the activity rate is relatively low (68.3%). High unemployment and subdued wage growth curb consumption growth, impair the deleveraging process, and limit the room for human capital investment.	Unemployment is declining at a healthy rate, but remains very high, especially for the youth and long-term unemployed. The recovery of cost competitiveness and reduction of unit labour costs during the programme should ensure that strong job creation will continue in the years to come. Employment growth is expected to reach 1.6% in 2019 and 1.2% in 2020. (See also section 3.3)	Significant measures have been taken during the programme period to improve the efficiency of labour and product markets and to regain external competitiveness. Future deviations from such policies would risk hindering the recovery process.
Conclusions from IDR analysis			
- Greece faces important challenges in the form of a weak financial sector, combined with high unemployment, large stocks of external debt and an unfavourable net international investment position. The high ratio of non-performing loans in the domestic banking system constrains deleveraging and banks' profitability, reducing the amount of credit that can be channelled to the economy, which suffers from underinvestment and slow productivity growth. - While unemployment and public debt are expected to decrease in coming years, the net international investment position appears to be on a less sustainable path due to the reliance of the current account adjustment on the compression of demand. As domestic consumption and investments will pick up, corresponding increases in productivity and exports will be needed to ensure that the current account and NIIP do not worsen again. To that end, further reforming efforts are needed in the areas of business environment, investment licensing, trade facilitation, labour and product markets. In addition, investments are recovering slowly because the private sector is deleveraging and the reduction of non-performing loans continue to be hampered by poor contract enforcement, inefficiencies in the judicial system, bottlenecks in the implementation of the foreclosure and insolvency legislation and lack of reliable information on borrowers. - Wide-ranging measures have been taken during the ESM programme to improve the business environment, the foreclosure and insolvency legislation, the credit and companies' registries, prop the efficiency of the judiciary, and allow for the sale of non-performing loans. For the post-programme phase, a series of action plans have been agreed to ensure continuity and deepening of the reforms in these areas. Combined with the improvements in cost competitiveness, the effective implementation of reforms has the potential to jumpstart the economy, spurring the creation of productive, rewarding and sustainable jobs			

Source: European Commission

3. REFORM PRIORITIES

3.1. PUBLIC FINANCES AND TAXATION* (¶)

This section looks at fiscal policy and fiscal frameworks, taxation, tax administration and compliance and public financial management and public procurement. The long-term sustainability of public finances is discussed in the Fiscal Sustainability Report 2018 (European Commission, 2019b) and in the second enhanced surveillance report published in parallel to this country report (European Commission, 2019a).

Fiscal policy and fiscal frameworks

In recent years, Greece has consistently exceeded its fiscal targets. Greece's fiscal policy framework is anchored by the nominal primary surplus target of 3.5 % of GDP and requirements of the preventive arm of the Stability and Growth Pact (Council Implementing Decision (EU) 2017/1226 of 30 June 2017, OJ L 174, 7.7.2017, p. 22). The primary surplus targets were exceeded in all years of the European Stability Mechanism programme, in some years by a substantial margin.

The main driver of the recurrent over-performance was underspending as compared with the initial budget ceilings, in particular on investment. On average, only 83 % of the public investment budget ceilings allocated to ministries was actually spent in 2012-2017. This is problematic for two reasons. Firstly, although public investment has partly recovered from the downturn during the crisis, the country's investment needs are still large and investment in sectors such as health care remains deeply below the euro area average (Greece: 0.05 % of GDP, euro area: 0.18 % of GDP in 2016). Secondly, the unspent resources could have been re-directed to other useful purposes, had the underspending been detected early enough in the year.

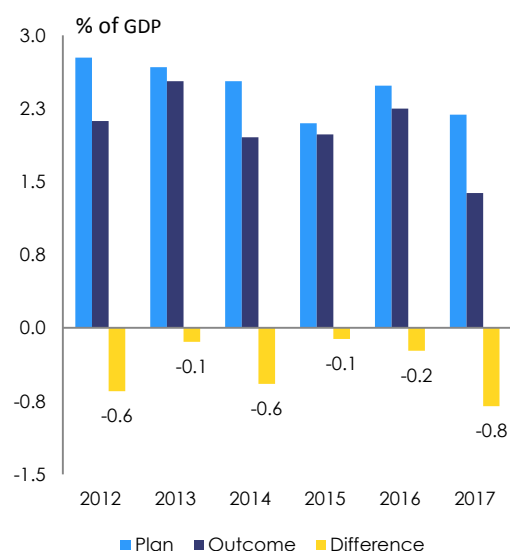
The budgeting framework for the public investment budget is undergoing an independent review with a view to addressing the recurrent underspending. The Ministry of Finance exercises only limited surveillance over the public investment budget, which is instead

prepared and implemented by the Ministry of Economy. This means that the optimal allocation of limited resources is established separately for the ordinary and investment budgets, whereas a reallocation between the two could represent a better outcome with respect to reaching the authorities' policy objectives. Greater involvement of fiscal experts in the investment budgeting process would be useful. It could help structure the discussion over the draft budget, reveal weak points among competing proposals and potentially expand the options for finding the optimum outcome. The authorities committed to improving their public investment budgeting practices and to implementing these improvements in early 2019.

The achievement of fiscal targets is underpinned by yields of the already legislated fiscal consolidation measures and the ongoing economic recovery which translates into higher revenue. Greece is predicted to meet the primary surplus target in the medium term (see European Commission, 2019a). Notably the pension system reforms implemented under the economic adjustment programmes should continue to lower the proportion of social expenditure in GDP, with a positive impact on the general government balance. As shown in Graph 3.1.2, the achievement of the targets is likely to be further supported by a solid growth in households' income and spending, which augurs well for the dynamics of taxes in coming years, and policy commitments that limit expenditure growth, in particular in public employment and in health care.

(¶) An asterisk indicates that the analysis in the section contributes to the in-depth review under the MIP (see Section 2 for an overall summary of main findings).

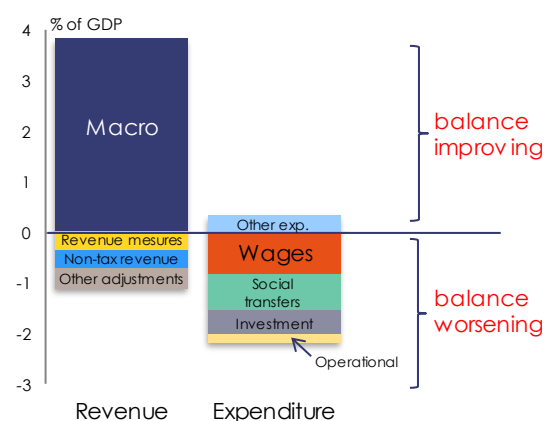
Graph 3.1.1: Underspending from the public investment budget*, 2012-2017



* Planned and actual expenditure from the public investment component of the state budget net of grants to general government.

Source: European Commission

Graph 3.1.2: Drivers of changes in general government balance, 2019-2022



Source: European Commission

Greece has established a rule-based comprehensive fiscal governance framework, in line with the relevant European legislation (Budgetary Frameworks Directive, Two-pack, and Fiscal Compact). The country introduced a medium-term fiscal strategy and strengthened expenditure procedures and fiscal reporting to safeguard fiscal accountability. A structural budget balance rule was laid down coupled with an automatic correction mechanism and specific

sectoral corrective mechanisms (i.e. local government, health care, extra-budgetary funds and State-owned businesses). The Hellenic Fiscal Council has made major progress in rolling out its activities since it became operational in late 2015. It has also published its mandatory semi-annual reports on the annual and medium-term fiscal plans and on compliance with domestic numerical rules.

Taxation

In the context of the financial assistance programmes, Greece implemented major reforms of the tax system. This included in earlier adjustment programmes the introduction of new income tax and tax accounting codes that modernised the personal income tax and corporate income tax, the introduction of the unified property tax (ENFIA) and a major reform of the criminal justice system for tax evasion and fraud.

Under the European Stability Mechanism stability support programme, a major value added tax (VAT) reform was implemented and the personal income tax (PIT) system was further simplified. Concerning VAT, Greece had the second (29.2 %) highest VAT gap ⁽¹⁰⁾ in the EU in 2016, significantly above the EU average of 12.3 %. Greece's VAT gap has remained relatively stable over the past few years (0.4 pp reduction since 2012). The VAT reform adopted in 2015-16 therefore considerably broadened the VAT base through limiting the scope of reduced rates and exemptions, reduced market distortions, and has stabilised compliance rates. The special VAT regime for five Aegean islands has been extended and its elimination made contingent on the reduction of migration flows. The PIT reform of 2016 broadened the tax base, integrated the former solidarity surcharge into the income tax system, and reduced the scope for tax avoidance.

A major reform of property tax zonal values has been initiated to update and align tax values with market prices by 2020. This will improve the efficiency and fairness of the unified property tax. Other pending reforms include inter alia the

⁽¹⁰⁾ The VAT gap is the difference between the amount actually collected and the theoretical net total VAT liability for the economy under its current VAT system.

simplification of the VAT code, the reform of Stamp duty, and the reform of the tonnage tax regime including the extension of the "voluntary tonnage tax" regime.

The tax-to-GDP ratio in Greece has significantly increased during the crisis and has converged with the average 41.2 % ratio of the euro area. The share of taxes and social contributions in GDP in Greece stood at 41.6 % in 2017, a substantial increase from the pre-crisis ratio of 32.8 % in 2009. Partly reflecting this increase in taxation, investment surveys show tax instability as a negative factor for investment. Indirect taxes, environmental taxes, and property taxes have relatively high shares compared to other EU Member States.

Corporate and personal tax rates and the implicit tax rate on labour (including social security contributions) remain high in Greece compared to other EU member states. The corporate tax rate of 29 % and the top personal tax rate of 55 % are above most other Member States. The pre-legislated reduction in the personal income tax credit in January 2020 is projected to raise some 1 % of GDP in additional revenue through broadening the PIT tax base and will facilitate personal and corporate tax rate reductions. Moreover, Greece continues to have a very high debt bias in corporate taxation (3rd highest in the EU in 2017) (European Commission, 2018h) that could limit investments by young, innovative and high-risk companies that rely on equity financing.

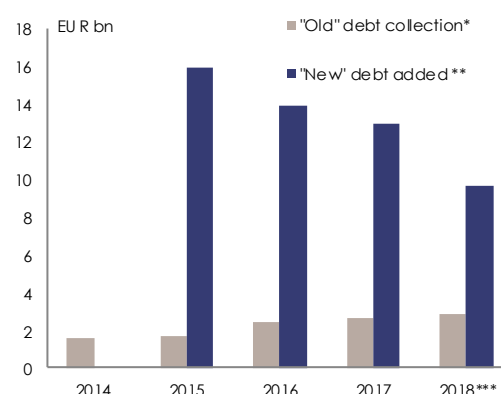
Tax administration and compliance

Greece has undertaken major reforms in recent years to remedy its longstanding weakness in tax collection and compliance. Reforms implemented under subsequent financial assistance programmes, covered the collection of taxes, custom duties and social security contributions. Major institutional reforms aimed to increase the transparency, accountability and efficiency of the system. The establishment of an Independent Authority of Public Revenue (IAPR) as from 1 January 2017 has consolidated the various reforms up to that point. More importantly, it has provided a coherent institutional framework for improving revenue collection. As part of improving the revenue administration, measures to strengthen

customs efficiency and reinforce the fight against smuggling have been taken. As part of the 2016 pension reform, a single social security fund (EFKA) was established. This fund is responsible for collecting of social security contributions of all insured individuals. A single centre for the collection of social security debt (KEAO) has also been set up and has become part of the single social security fund.

Key performance indicators measuring IAPR's performance have been largely met. This shows that the measures introduced to increase tax collection are proving to be both relevant and useful. As the graph below shows (Graph 3.1.4), whereas the collection of "old debts" continues to increase, less "new debt" is being added to the books. Notwithstanding in 2018, the decreasing trend on new debt has decelerated for certain groups (in particular self-employed), which may be related to the increased tax burden having affected their ability to pay on time. As concerns the social security contributions, although the debt collection continues to overall exceed the set targets, there is still an upward trend as concerns the overall debt accrued mainly relating to the surcharges (incl. interest) added.

Graph 3.1.3: "Old debt" collection and "new debt" added



* Old debt is defined as debt accrued before the end of November of the previous year (deducting collections and write-offs).

** New debt is defined as overdue balance standing this current year (without deductions of collections and write-offs).

*** Figures up until to November 2018.

Source: IAPR

Notwithstanding the positive developments both in terms of reinforcing the institutional set-up and in providing new collection tools and

resources, much remains to be done in these areas. The IAPR still needs to be fully staffed and the development of an integrated IT system still needs to be developed. In this context, the adoption of the IAPR Reform Action Plan ("Blueprint") for 2019-2021, a key strategic document, has been delayed. The "Blueprint" sets out specific measures and investments, including the development of the IT system and tools that will be required to continue transforming IAPR into a modern, flexible and effective organisation. Similarly, the adoption of the IAPR's human resources reform, which will introduce tailored job descriptions, grading, remuneration and performance assessment has also been delayed. The reform is vital for improving IAPR's prospects to attract and keep highly-qualified staff.

Specific reforms to improve tax compliance and combat tax evasion include measures to increase electronic payments and timely submission of tax returns. A number of further measures are in the pipeline that should facilitate and enhance revenue collection. These include (i) automating VAT declarations and simplifying administrative procedures for declaring uncollectible taxes; (ii) improving data sharing/management between IAPR and other government services; and (iii) reinforcing liability provisions for revenue administration officials to enable modern and effective working/collection methods to be widely implemented.

Public financial management and public procurement

Various reforms since the beginning of the crisis aim to improve Greece's public financial management system. The reform efforts focused particularly on: i) modernising the planning, execution and control of the budget, also by introducing a new budget classification, ii) ensuring prompt arrear payments and iii) improving liquidity management.

The authorities made substantial efforts towards the full clearance of the outstanding arrears by the public administration. The European Stability Mechanism programme provided for significant financing to clear arrears, which resulted in a large reduction in the stock of net arrears. However, remaining structural bottlenecks have slowed down the clearance of

arrears; the goal of full clearance has not been achieved.

In order to address the structural weaknesses of the public administration in dealing with arrears clearance, the authorities have recently adopted detailed action plans. The action plans build on the recommendations issued by the Hellenic Court of Auditors. Moreover, the Ministry of Finance has altered the information recorded in the commitment registers and collected via the e-portal by the central and general government entities. Tackling the structural issues that lead to the accumulation of arrears should also ease Greece's compliance with the Late Payment Directive, which remains problematic, particularly in the health sector.

To improve fiscal reporting and cash management functions and to move towards more result-based policies, the government is in the process of implementing a new government budget classification structure and Chart of Accounts (referred together as CoA). The authorities have updated their information technology system and have adopted the new economic and administrative classifications in the 2019 State budget. The authorities are working on the remaining segments also to advance towards a new performance budgeting framework. The adoption of the new CoA prepares also the grounds for supporting the new cash management functions as designed in the new Treasury Accounts System (see below). The fund and functional classifications for the central government are expected to be implemented as from 2021 State budget. In parallel, the general government entities are expected to adopt the new classifications in their budgeting and accounting as of 1 January 2023.

Further progress is being made in improving the fragmented cash management system, ensuring transfers of cash reserves to the treasury accounts system in the Bank of Greece. A new legal framework for the cash management system was adopted in June 2018. It requires that all central administration entities mandatorily maintain their accounts within the Treasury Single Account in the Bank of Greece. The other central government entities and the entities belonging to the general government must participate in the Treasury Accounts System by transferring their

surplus cash reserves daily to the Bank of Greece. The concentration of surplus reserves is deemed to make government's liquidity management more efficient while strengthening the debt management.

The legal framework for State guarantees has been modernised and the administrative procedures governing the process streamlined.

The authorities have made progress in implementing the recently designed action plan to improve the management of State guarantees issued to individuals and enterprises for proven damages as a result of natural disasters or to private enterprises operating at geographical areas characterized by exceptionally low economic activity. The action plan aims to streamline the bureaucratic burden of processing claims by: i) creating an electronic repository of borrowers, ii) agreeing on settlement schemes and iii) improving interoperability with local tax offices. The legislative framework was also modernised.

Reforms have been carried out to further enhance the efficiency of public procurement.

Over the last years, Greece has carried out significant reforms in the area of public procurement: consolidated and simplified legislation, a new prejudicial remedies system, use of electronic procurement, new centralised procurement scheme and adoption of the National Strategy on Public procurement including a set of actions to improve administrative capacity. These reforms are expected to address persistent deficiencies of the Greek public procurement market such as a high number of single bid procedures (34% in 2018, as opposed to 23% on average at EU level); lengthy award procedures (236 days, compared with a European average of 83 days); a high number of contracts awarded exclusively based on the lowest price (90 % in 2018, compared with 63 % at European level) often with excessively high discounts, and contrary to the best practice favouring the use of more quality-based criteria.

Further improvements in administrative capacity and the full implementation of the new centralised procurement scheme is needed to achieve economies of scale and rationalise public expenditure. In the short term, priority needs to be given to measures such as streamlining electronic procurement facilities, systematically checking on excessively low bids,

professionalising procurement staff and promoting central purchasing. In the long term, the country's public procurement framework will need to be rendered more efficient, which, in turn, will contribute to more sustainable and efficient use of public resources. Regarding the public investment budget, applying the rules of the EU co-financed components to the purely national component would be advisable.

3.2. FINANCIAL SECTOR

3.2.1 Financial sector overview and financial stability assessment* ⁽¹¹⁾

While not at the origin of financial stress, the domestic banking sector was adversely affected during the protracted crisis in Greece. In the run-up to the crisis, rising concerns about the creditworthiness of the Greek sovereign adversely affected the banking sector and led to deposit withdrawals. Between 2010 and 2012, capital and liquidity deteriorated further, bank deposits fell sharply and banks' access to capital and money markets was lost. The banking sector was recapitalised in 2013 and at the beginning of 2014 as part of the second financial assistance programme. The sector also received substantial emergency liquidity assistance from the European Central Bank. The subsequent nascent recovery in the Greek banking sector was halted by the confidence crisis in 2015. Large amounts of deposits were withdrawn from the banking sector, which led to the imposition of capital controls. Non-performing exposures increased further on the back of the protracted recession and deteriorated payment culture. In December 2015, the European Stability Mechanism disbursed EUR 5.4 billion for the recapitalisation of Piraeus Bank and the National Bank of Greece.

Over the past several years, Greece has introduced wide-ranging policy measures to safeguard financial stability and strengthen the viability of its banking system. These focused on: (i) gradually normalising liquidity and payment conditions and strengthening capital; (ii) addressing the high level of non-performing exposures (NPEs) on banks' balance sheets; and (iii) improving the governance of both banks and the Hellenic Financial Stability Fund (HFSF).⁽¹²⁾ Progress has been made in these financial sector policy areas, but strong efforts are still needed, as the gap with EU peers has widened in respect of asset quality (NPE ratio), capital (fully-loaded

common equity tier 1 (CET1) ratios) and quality of capital. Profitability is still negative and while emergency liquidity assistance and Eurosystem funding have decreased significantly, liquidity regulatory gaps are still in place (e.g. with respect to the liquidity coverage ratio).

Banks have built up capital buffers and private sector deposits are stable. Banks' average CET 1 ratio was slightly below 16 % during the second quarter of 2018, thus ensuring that banks are above capital requirements (see Table 3.2.1). Profitability remained negative, as provisioning and write-offs of NPEs continued. The cost-cutting efforts to reduce the number of bank staff and branches could offer some further relief in the future. The provisioning coverage ratio has increased as compared to the previous year, reaching 49 % in the second quarter of 2018. Private sector deposits have remained stable since the end of the European Stability Mechanism programme in August 2018.

Most recently, banks' reliance on central bank funding has further decreased and capital controls have been gradually eased. Greek banks managed to significantly reduce their reliance on Eurosystem funding. Two of the systemic banks have repaid emergency liquidity assistance entirely and the other two are expected to follow in 2019. The emergency liquidity assistance ceiling was reduced from EUR 90.4 billion in August 2015 to EUR 4.9 billion in early November 2018. An improved liquidity situation of Greek banks and greater confidence of depositors allowed capital controls to be further loosened from 1 October 2018. This enabled unlimited cash withdrawals from credit institutions in Greece and increased the limits on cash withdrawals and transfer of cash abroad. Cross-border business activities — particularly investment — should be further supported by these recent provisions that increased the limit to the amount of funds that can be transferred abroad and provided the possibility to repatriate capital gains and dividends up to 100 % of the invested funds in Greece per year.

⁽¹¹⁾ An asterisk indicates that the analysis in the section contributes to the in-depth review under the MIP (see Section 3 for an overall summary of main findings).

⁽¹²⁾ The HFSF is a body fully owned by the Greek state, through which the four Greek systemic banks have been recapitalized in the past years and it currently has a 2.4 – 40.4 % ownership stake in these banks. As per its mission, the HFSF contributes to the stability of the Greek banking system for the sake of public interest. In June 2018, the HFSF's mandate was extended until the end of 2022.

Non-performing exposures (NPE) resolution remains a key challenge for the banking sector in Greece. Greece still faces the major task of cleaning up banks' balance sheets. This will require major efforts in the post-programme period. As of June 2018, banks are reducing the NPE stock in line with supervisory targets. While these targets are going to become more ambitious over time, there is no simple solution to accelerate the pace of reduction. According to the targets agreed, the NPE ratio will be 35 % at end-2019 and banks have indicated that they expect to reduce the ratio to around 20 % by end-2021. These efforts are supported by several major reforms related to the out-of-court debt workout mechanism, the insolvency framework for households and corporations, the enforceability of collateral through electronic online auctions, as well as the activation of a secondary market for NPEs.

While banks meet the capital requirements, the quality of the capital remains weak. In this context, it is important to note the high level of deferred tax assets (DTAs) that are eligible to be converted into deferred tax credits (DTCs), which banks do not have to deduct from their regulatory capital⁽¹³⁾. According to the latest data available, the amount of the eligible DTAs to be converted into DTCs by the four systemic Greek banks is EUR 15.9 billion as of June 2018, which is equivalent to around 59 % of their Common Equity Tier 1 Capital.

Reforms have been adopted to improve banks' governance, in particular through the reconstitution of bank boards, in line with the provisions in the Hellenic Financial Stability Fund (HFSF) law. The four systemic banks have been working on implementing the HFSF's recommendations resulting from the 2017 governance review. Acknowledging significant improvements, the review identified that additional actions are needed in the areas of risk culture, compliance and internal control framework and substantial time and effort is needed to implement the recommendations in full and especially until they become organic parts of the respective corporate cultures. A part of these recommendations has already been addressed, while work on others is still in progress.

Three of the four systemic banks have implemented their restructuring plans by the end of 2018. This is likely to entail certain changes in their operational framework with the HFSF, starting most likely from January early 2019, as a substantial part of the HFSF's special rights is linked to the monitoring of the restructuring plans.

The HFSF will work on selling its stakes in the systemic banks in the coming years, in line with its divestment strategy that the HFSF adopted in November 2018.

⁽¹³⁾ However the DTC amortises over 20 years.

Table 3.2.1: **Financial stability indicators**

	2014Q4	2015Q4	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2
Non-performing loans	39,7	46,8	47,2	47,4	46,3	46,6	46,9	46,7	45,0	45,4	44,9
o/w NFC & HH sectors	41,8	49,5	50,1	50,3	50,4	50,3	50,6	50,4	49,4	49,2	48,4
o/w NFC sector	44,7	52,5	53,2	53,9	53,9	53,4	53,3	52,6	51,4	51,1	49,4
o/w HH sector	38,5	45,9	46,5	46,2	46,3	46,8	47,5	47,9	47,1	47,0	47,3
Coverage ratio	43,5	48,5	48,1	48,2	48,2	48,1	47,4	47,2	46,7	49,5	49,0
Return on equity(1)	-10,6	-24,2	-15,8	-9,9	-7,5	1,3	-0,4	-0,3	-1,3	0,7	-2,4
Return on assets(1)	-1,0	-2,8	-1,9	-1,2	-0,9	0,1	-0,1	0,0	-0,2	0,1	-0,3
Total capital ratio	14,1	16,5	18,0	18,2	17,0	16,8	17,2	17,2	17,1	16,4	16,4
CET 1 ratio	13,8	16,3	17,8	18,1	16,9	16,7	17,1	17,2	17,0	15,8	15,8
Tier 1 ratio	13,8	16,3	17,8	18,1	16,9	16,7	17,1	17,2	17,0	15,8	15,8
Loan to deposit ratio	79,1	72,3	74,5	75,5	75,9	77,2	78,2	81,8	83,5	78,8	78,4

(1) Annualised data

Source: ECB - CBD2 - Consolidate Banking data, Commission services

Asset quality in the banking sector

Non-performing exposures⁽¹⁴⁾ (NPEs) have been gradually decreasing, but remain high, amounting to EUR 88.6 billion at the end of June 2018, just below 48 % of total exposures, compared with the peak of EUR 107.2 billion of March 2016. The reduction of NPEs through sales accelerated over the past quarters while e-auctions appear to have produced some first results. Write-offs remain an important driver of the reduction followed by liquidations and collections. In terms of flows, in the second quarter the default rate exceeded the cure rate again. The default rate is driven by re-defaults on previously cured NPEs, implying that banks are still struggling to put in place viable long-term restructuring solutions. Looking at types of loans, small and medium-size enterprises (SMEs) and corporate portfolios perform better. The NPEs in the mortgage book recorded a very slight annual reduction. The percentage of NPEs under the legal protection of the Household Insolvency law is still significant (14.4 % of NPEs and 30 % of non-performing mortgage loans at the end of June 2018).

The strategy adopted under the European Stability Mechanism programme for tackling NPEs has included regulatory, judicial, supervisory and other measures. These included: (i) creating an active NPE servicing and sales market; (ii) applying the Code of Conduct adopted by the Bank of Greece; (iii) revising the Household Insolvency law; (iv) reforming the corporate insolvency law; (v) creating an out-of-court workout mechanism; and (vi) undertaking an extended reform of the Greek Code of Civil Procedure which included adopting an electronic auctions system to liquidate assets following executory enforcement. Greece also committed to strengthening the capacity of its courts to increase their efficiency in managing and accelerating the processing of their considerable backlogs of NPE-related cases and in swiftly resolving new ones. While the progress in implementing these strategies and/or measures by the end of 2018 has

not been uniformly satisfactory, there are encouraging signs in the areas of sales and securitisations. However, sustainable restructuring solutions, either directly by the bank or by the servicer/acquirer of NPEs are not yet evident.

In the NPE secondary market, the two first NPE sales by Greek banks occurred in the second half of 2017 and the first quarter of 2018, involving highly provisioned unsecured loan portfolios, with a focus on consumer loans. Several additional NPE transactions have been closed in the second and third quarter of 2018 or are currently under way. Completion of already conducted and currently planned transactions would bring the total face value of loans transferred by the country's four systemic banks to around EUR 20 billion.

Regarding corporate insolvency, despite a recent major reform of the Corporate Insolvency Code and the introduction of the new profession of Insolvency Administrator, there was no observable increase in the number of stakeholders making use of the new framework up to the end of 2018. For instance, only 35 new cases were reported as having been filed with the relevant division of the Athens first instance court in the first half of 2018. However, there is scope for an accelerated uptake as the impact of the numerous improvements and procedural streamlining becomes clear, enabling bona fide individual debtors to obtain discharge 3 years after the declaration of bankruptcy and further simplifying and accelerating insolvency proceedings for small and medium enterprises.

Regarding the performance of the regulatory framework for household insolvency and its application by the courts, accelerated progress in processing backlogs is expected following the latest reform. Notably, the reform introduced measures for filtering out strategic defaulters, in particular by requiring applicants to consent to the lifting of their banking secrecy, and for expediting proceedings. A comprehensive action plan aims to eliminate the backlog of cases, including the processing of pending applications, by the end of 2021. The authorities have started to implement the plan but the pace of reduction needs to increase to attain that objective by the end of 2021. In addition, financial training is being provided to judges throughout Greece to facilitate the processing of household insolvency and non-

⁽¹⁴⁾ Non-performing exposures (NPEs) have a broader definition of non-performing loans. They include loans more than 90 days past due and loans whose debtor is assessed as unlikely to pay its credit obligations in full without realization of collateral, regardless of the existence of any past due amount or of the number of days past due.

performing exposures-related cases. Action is also being taken to address specific problems experienced by Magistrate's courts. The authorities report that they are in the process of elaborating secondary legislation to improve the application of the Household Insolvency law, including the State subsidies to protect vulnerable households. The codification of the legislative and normative framework on household insolvency, implemented at the end of 2018, is expected to facilitate its interpretation and implementation. More generally, to further increase the case-processing capacity of courts, the Greek authorities are progressing with the gradual appointment of successful candidates to the public competition conducted in 2017 to hire courthouse support staff.

The protection of primary residences was extended by two months and is expected to be adjusted after that. The protection on primary residences under the Household Insolvency law was set to expire on 31 December 2018. On 31 December 2018, the government issued a Cabinet Act extending the protection of primary residences under the Household Insolvency law until 28 February 2019⁽¹⁵⁾. The Greek authorities have indicated that they intend to proceed with the adjustment of the protection on primary residences, in consultation with the Hellenic Banking Association.

The Out-of-Court Workout mechanism got off to a slow start in August 2017 when the electronic platform for submitting and processing applications became operational. While volume and turnover remain modest, regulatory and technical measures are being taken to improve the system's performance. On the technical aspect, the electronic platform was upgraded during the last quarter of 2018, to enable the collection of data relevant to key performance indicators and the monitoring of statistics relevant to public and private creditors. The platform should be updated regularly to address any future stakeholders' needs.

The electronic platform for carrying out e-auctions that was first put into use in November 2017 to provide an alternative for and eventually replace the highly problematic and

contested conduct of physical auctions, has been a success in terms of its performance. It has allowed for the resuming of liquidations of collateral, after a long moratorium followed by a de facto blockage of physical auctions by activists throughout Greece. By 31 December 2018, 17,223 properties were auctioned. Future prospects look positive. One point of concern is that four out of five successful auctions conducted since the platform was activated led to the purchase of the collateral by the bank. The owner and operator of the platform is therefore investigating how to make the platform more user-friendly so that it encourages participation by non-specialist prospective purchasers.

Finally, in its efforts to increase the value of its participations, the HFSF closely monitors the banks' progress on NPE resolution and supports the banks in their efforts to reduce NPEs, including, among others, challenging the banks with respect to their NPE strategies and taking part as an observer in the interbank NPE Coordination Committee. Over the past months, as an addition to the NPE resolution toolkit, the HFSF has also been exploring the possibility of an Asset Protection Scheme and is currently working with the Greek authorities on setting up a workable structure. In order to assess the scope of both proposals for creating a workable structure, several elements still need to be elaborated and consulted with relevant stakeholders.

Private sector access to finance

Following years of pronounced contraction, bank lending remains very subdued, with slight signs of improvement for companies. Since 2016, the annual growth rate of loans extended to non-financial corporations has hovered around zero. The growth rate for loans to households has been progressively becoming less negative since July 2016. Factors that supported new credit to the private sector include the recent modest recovery in economic activity and a slight reduction in lending rates. On the downside, the burden of a NPE stock has been inhibiting new lending by banks. On average, in January-July 2018 new gross loans to households remained broadly stable as compared to the previous year, while higher volumes of new loans to non-financial corporations were recorded. In 2018, for the first

⁽¹⁵⁾ Published in the OJ A-221/31.12.2018.

time in many years banks reported some easing in credit standards for all types of new loans.

recent positive trend in banks' regarding the willingness to lend to SMEs.

Lending rates to non-financial corporations are decreasing, while interest rates on mortgage and consumer loans are increasing. The gradual decline in lending rates to non-financial corporations has continued during 2018, driven by lower credit risk and the favourable effect of the financing instruments available to SME (e.g. by the Hellenic Fund for Entrepreneurship and Development, the European Bank for Reconstruction and Development and the European Investment Bank Group). By contrast, lending rates to households have been following an upward trend for the past 4 years, mainly reflecting credit risk developments, as the NPE ratio for consumer loans is particularly high and the NPE ratio for mortgage loans has been deteriorating recently as compared to other loan categories.

At the sectoral level, non-financial corporations are taking advantage of financing from alternative sources other than domestic banks, but important broader financial sector elements are still underdeveloped. The combined stock from the foreign intercompany and bank sources of funds (excluding corporate bond issues abroad) in 2018 represented around 13 % of outstanding bank credit to non-financial corporations. Leasing/hire purchase and factoring transactions currently stands at around 7 % of outstanding bank credit to non-financial corporations. Survey data point to the significance of trade credit from suppliers as a relevant alternative source for financing for Greek SMEs. Greek capital markets are still affected by the deep and prolonged crisis and dominated by trade in banks' securities, thus limiting the meaningful funding alternatives to non-financial corporations, except for some large corporations. Overall, raising capital from bond markets was and remains a difficult task for the average Greek non-financial corporation, due to country risk, low profitability and a shallow domestic investor base.

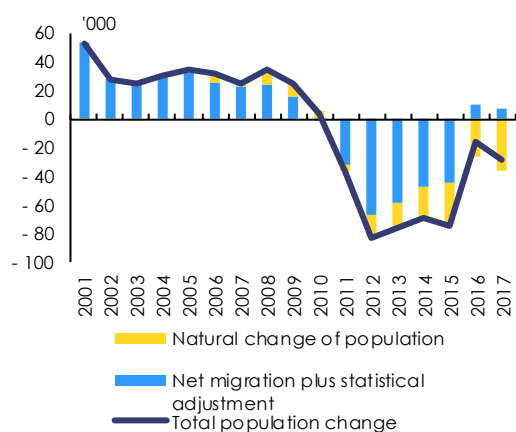
SMEs in Greece continue to be disproportionately affected by the lack of access to finance. On average, 17 % of SMEs mention access to finance as their most important problem, well above euro area averages. The demand for external financing in Greece continued to be the strongest in the euro area. However, there is a

3.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

3.3.1. LABOUR MARKET* ⁽¹⁶⁾

Although the Greek labour market still feels the effects of the crisis, major improvements have taken place. During the crisis, employment in Greece dropped by a sharp 19 %. Employment levels stabilised in 2014 and started rising more markedly from 2017, while the unemployment rate has been steadily decreasing from its peak of 27.9 % in July 2013 to 18.5 % by November 2018. The current level of 3.7 million people in employment (age group 20-64) still falls short of the 2008 level (4.5 million in employment) and almost 900 000 individuals are looking for a job (19 % of the active population). Of these, almost three out of four have been without a job for more than 1 year, and more than one third for more than 4 years. The overall population has been in decline since 2010 as a result of the combined effect of out-migration (with net migration turning positive only in 2016, mostly due to the large inflow of refugees) and a negative and deteriorating demographic balance.

Graph 3.3.1: Total population change



Source: Eurostat

The more pronounced recovery in employment that has been taking place since the end of 2016 has been broad-based. There has been job creation in all sectors of the economy, with larger absolute gains in the tradable services sector (which accounts for one third of the Greek

economy), but a relatively stronger growth in industry and construction, i.e. the sectors which had registered the largest job losses throughout the crisis. Most of the jobs created have been permanent ones, with the share of temporary employment remaining stable at around 11.3 % of total employment in 2017 (below the EU average of 13.4 %). Although the proportion of part-time employment has increased (from around 5 % before the crisis to close to 10 % in 2017), it is still very low when compared with other EU Member States and the EU average of 19 %. Yet, 70 % of part-time workers (one of the highest percentage in the EU) would prefer to work more, but have been unable to find a full-time job. At the same time, the social security system does not cover all people in employment; sub-groups of the self-employed do not have formal coverage to sickness benefits.

Women's participation in the labour market is extremely low. At 48 %, the employment rate of women in Greece is 19.7 percentage points lower than that of men and is one of the lowest in the EU. This already very wide gap between men and women (among the largest in the EU) has been widening in recent years, as the employment rate of women has been rising at a slower pace than that of men. This is matched by a very low level of labour participation among women in younger (15-24) and older (50-64) age groups (see Graph 3.3.2). With respect to work-life balance, caring responsibilities are less cited as a reason for women's inactivity in Greece than the EU average, and parenthood does not currently seem to have a significant impact on the employment rate of women. At the same time, flexible working arrangements are very limited, parental leave arrangements are unequal between the public and private sector, and childcare enrolment rates are among the lowest in the EU and have been decreasing in recent years, raising concerns with respect to the Social Pillar principle on childcare and support to children. The proportion of children under three in formal childcare is 8.9 % (against the EU average of 32.9 %), and the proportion of children aged between three and mandatory school age is 55.6 % (EU average: 86.3 %). Mandatory enrolment of four year-olds in kindergarten is being gradually implemented and should apply in all municipalities by 2021. A considerable demand-supply gap remains, leading also to obstacles in the system of subsidies to low-income families. This calls for further investment, as it

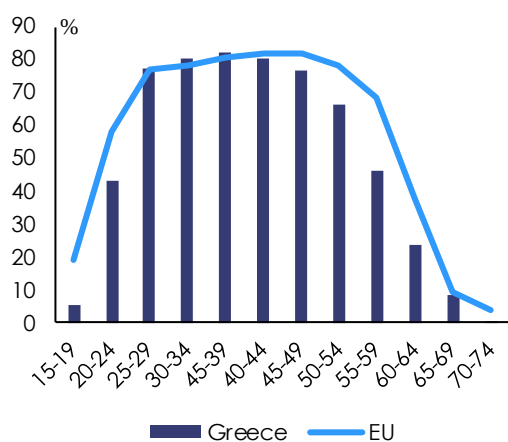
⁽¹⁶⁾ An asterisk indicates that the analysis in the section contributes to the in-depth review under the MIP (see Section 3 for an overall summary of main findings).

could become an impediment to a possible increase in female employment as the economy continues to recover.

Although still very difficult, the labour market situation for young people has been improving.

Youth unemployment has fallen considerably from its peak of almost 60 % in mid-2013 although, at 39.1 % in November 2018, it continues to be one of the highest in the EU. As reported in the Social Scoreboard, the proportion of young people (aged 15-24) not in employment, education or training (NEET) remains particularly high (15.3 % in 2017, compared to an EU average of 10.9 %). While the share of young unemployed (NEETs) has declined in line with the reduction in youth unemployment, the number of inactive youth (i.e. NEETs not seeking employment) has remained stable. Meanwhile, the reduction in youth unemployment has not been driven so much by an increase in youth employment, but rather by an increased participation in education (see Graph 3.3.3). The EU has been supporting the fight against youth unemployment through the Youth Employment Initiative. Over EUR 250 million have been allocated to Greece since 2014, reaching over 57 000 unemployed youth (NEETs 18-29 years old) but further investment is needed.

Graph 3.3.2: Activity rate of women in Greece and the EU by age group, 2017



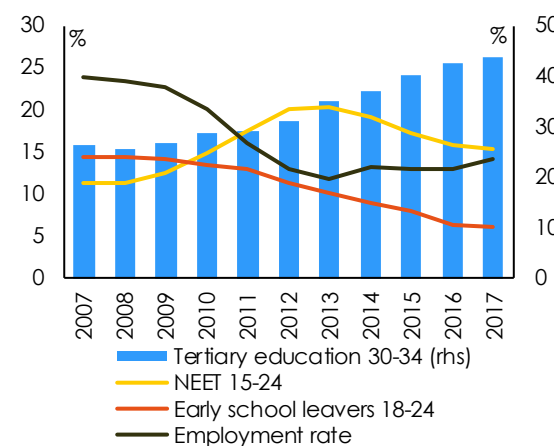
Source: Eurostat

The labour market integration of people with a migrant background is also a challenge.

Non-EU nationals legally residing in Greece represented 5.6 % of the population in 2017 (above the EU average of 4.2 %), and their employment

rate is structurally lower than that of Greek nationals. This gap is mainly due to the low employment levels of non-EU born women (42.4 %, compared to 48.5 % for Greek women). In addition, people born in Greece with foreign-born parents have worse employment outcomes than natives with Greek parents ⁽¹⁷⁾. The large migration experienced by Greece since 2015 has not yet modified the size of the non-EU born population, as only a relatively small proportion of the people who entered through Greece in 2015-2016 settled in the country. Nevertheless, considering the backlog of the asylum system, the integration of people benefiting from international protection into Greek society and the labour market will continue to be a major challenge for Greece in the coming years.

Graph 3.3.3: Education and labour market for youth



Source: Eurostat

Ensuring that the long-term unemployed are not left behind in the recovery, is the main challenge for Greece and one that will need further investment.

This can be achieved by ensuring: (i) that the overall framework conditions continue to be conducive to sustainable growth and job creation; and (ii) that policies aimed directly at improving employability prospects and promoting labour market participation are commensurate to the challenge. Greece is in the process of modernising its public employment service, with new tools and structures being put in place to improve the level of services provided to both

⁽¹⁷⁾ In 2017, the employment rate of 15-34 years old natives with two native parents was 54.6 %, while this rate was only 38.8 % for natives with two foreign-born parents.

jobseekers and employers, offering a more individualised approach and facilitating job matching. In addition to the reorganisation of the public employment service (which has also been reinforced with the hiring of additional qualified staff), the Greek authorities are reshaping the broader system of active labour market policies (ALMPs). This entails a shift to an open-framework delivery model, where a menu of labour market policies (ALMPs) would be available on a continuous basis to the unemployed, and the setting up of a continuous monitoring and evaluation system to inform on its future design.

Steps have been taken to reduce the extent of undeclared work. Undeclared work has always been a significant feature of the Greek economy, characterised by a relatively high level of self-employment and a large share of micro- and small businesses. Addressing undeclared work is a complex task, particularly for a country in a difficult socioeconomic situation marked by high unemployment, a poor business environment and a high tax burden. In October 2016, a roadmap for fighting undeclared work was produced in consultation with the social partners, outlining a comprehensive strategy to address the phenomenon and promote a transition to the formal economy. To carry out this strategy, the Greek authorities adopted a detailed three-year action plan, which is now in its final year of implementation.

Greece experienced a strong wage adjustment during the crisis, which helped rebalance the economy, but at a high cost for workers. In the public sector, salaries were cut to achieve the necessary fiscal savings. In the private sector, which was suffering from an unprecedented collapse of economic activity and a dramatic surge in unemployment, a number of measures were adopted to increase the margins of flexibility and allow firms to adapt to the new economic reality. In particular, firm-level negotiations were made the predominant level of wage bargaining, by suspending the ‘favourability principle’ (where firm-level agreements can only improve upon the terms set in higher-level agreements), setting a time limit to the validity of sectoral agreements, and no longer allowing them to be extended to the entire sector. In addition, the minimum wage (which used to be set autonomously by social partners) was made statutory, its level lowered (by

22 %) by a government decision, seniority top-ups were frozen and a sub-minimum wage rate for people under 25 was introduced.

Wages are expected to recover, following a sizable increase in the minimum wage and with collective bargaining once again playing a stronger role in wage formation. Following the end of the European Stability Mechanism programme and a gradual economic recovery, the sectoral level has returned to be the main level of collective bargaining negotiations. Representative sectoral agreements can again be extended, and the ‘favourability principle’ has been re-instated. Since September 2018, ten sectoral agreements have been extended, resulting in the same minimum standards of employment being applied in the respective sectors throughout the country. This could imply some wage increases for workers not previously covered by the collective agreements, and the possible impact on competitiveness and employment is being monitored by the authorities. Furthermore, the government increased the minimum wage by 10.9 % on 1 February 2019, eliminating also the sub-minimum wage for workers under 25 years of age.¹⁸ This increase in the minimum wage leads in the medium term to higher risk of negative employment effects, especially on low-skilled, young workers and workers with a long tenure. With regard to overall wage developments, it will be for the social partners to ensure that the still very high unemployment and fragile financial situation of many Greek companies are properly taken into account when negotiating new collective agreements.

Proper involvement of social partners in national policymaking needs to be ensured. During the crisis, social dialogue was characterised by very tense relations, with the government and social partners being unable to reach consensual solutions on how to help the country weather the recession. An attempt was made to improve the quality of social dialogue under the European Stability Mechanism programme between 2015 and 2018. In particular, the government was encouraged to actively involve social partners in

¹⁸ A more in depth discussion of the possible impact of the minimum wage increase can be found in the second enhanced surveillance report for Greece, published in parallel to this Country Report.

the design and implementation of labour market policies. A welcome step was the revamping of the Supreme Labour Council's role. The Supreme Labour Council is a tripartite body established to deal specifically with labour market policies. In 2017, it was confirmed as the main body responsible for monitoring collective dismissals under the new procedure, and for overseeing the action plan to tackle undeclared work. Currently, it is also responsible for verifying whether collective agreements fulfil the representativeness requirement for extension. However, there seems to be ample room to improve the social dialogue climate. For instance, social partners have complained that they are given insufficient time to provide reasoned opinions, while the Trade Union Confederation recently refused to take part in the consultation process for the revision of the minimum wage.

3.3.2. SOCIAL POLICIES

Though still difficult, the social situation should continue to improve in the coming years, thanks to the combined effect of the economic recovery and the full rollout of the social welfare reform.

Incomes and living conditions deteriorated considerably with the crisis. The median equivalised disposable income ⁽¹⁹⁾ dropped by 35 % between 2009 and 2016 (from EUR 11 500 to EUR 7 500 per year), causing a sharp increase in absolute poverty, with the proportion of severe material deprivation ⁽²⁰⁾ doubling from 11 % to 22 % of the Greek population, compared to the EU average of 6.9 % (European Commission 2018g). This was caused by the increase in long-term unemployment and the fall in wages, as unemployed people did not receive any form of income support after their unemployment benefits (which last 12 months) expired ⁽²¹⁾, and by the

limited capacity of the Greek welfare system to provide adequate protection against poverty ⁽²²⁾, with the exception of old-age poverty. In particular, in 2016, social transfers (other than pensions) were able to reduce the 'at risk of poverty' level by about four percentage points, while the average EU poverty reduction effect was double.

Major steps have been taken in recent years to improve the efficiency, effectiveness and adequacy of the Greek social welfare system

[see Box 3.3.1]. In particular: (i) a new guaranteed minimum income scheme was introduced in 2017; (ii) the system of family benefits was deeply reformed in 2018 to better address child poverty; and (iii) a new means-tested housing benefit is expected to be introduced in the course of 2019. The first signs of improvement became visible in 2017: (i) the decline in median disposable income finally came to a halt; (ii) severe material deprivation decreased; and (iii) at risk of poverty or social exclusion started to decline. The completion of the already initiated disability benefit reform and the review of the system of subsidies for local public transport are expected to further improve the efficiency of the social welfare system.

to other EU Member States. See the benchmarking exercise in the area of unemployment benefits and active labour market policies conducted within the Employment Committee and presented in the Draft Joint Employment Report 2019, European Commission, 2018.

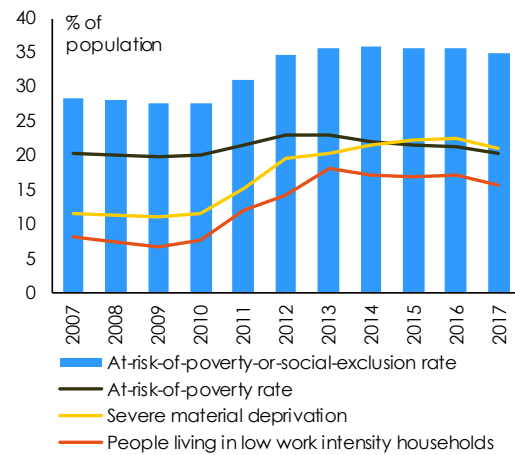
⁽²²⁾ According to the benchmarking exercise in the area of minimum income schemes conducted within the Social Protection Committee. See the draft Joint Employment Report 2019, European Commission, 2018 for details.

⁽¹⁹⁾ The equivalised disposable income is the total income of a household, after tax and other deductions, that is available for spending or saving, divided by the number of household members converted into equalised adults; household members are equalised or made equivalent by weighting each according to their age, using the modified OECD equivalence scale.

⁽²⁰⁾ Severe material deprivation is an EU-SILC indicator defined as the enforced inability to pay for some items considered by most people to be desirable or even necessary to lead an adequate life.

⁽²¹⁾ In Greece, unemployment insurance benefits last up to 12 months, which is a relatively high duration when compared

Graph 3.3.4: Europe 2020 poverty indicators for Greece



Source: Eurostat

Greece is facing high income inequality, mainly due to the low redistributive power of the tax and benefit system. Income inequality has long been relatively high in Greece, and it remained stable during the crisis as the fall in incomes broadly affected the entire population. In 2017 % the disposable income of 20 % of the population with the highest income (top quintile) was 6.1 times that of the bottom 20 % of the population (bottom quintile), much above the EU average of 5.1. This is linked to a weak effect of taxes and benefits in reducing income inequality. In 2017, benefits reduced income inequality by only 20 %, as against an EU average of 40 %, while taxes had no inequality reducing effect. However, this should improve following the latest welfare reforms.

Greece has taken major steps to improve the provision of social services, but major challenges remain. A network of ‘community centres’ — one-stop-shops where social assistance beneficiaries are offered access to various social services — has been set up at the local level (with the support of the European Social Fund), with the central administration ensuring proper coordination and monitoring. Such an integrated model of providing social services is considered in international literature to be highly effective. However, more investment would be needed to improve the level and quality of the services provided. De-institutionalisation also remains a key challenge. Significant shortcomings have been found with respect to residential care for children with disabilities, the lack of policies for alternative care settings, and the lack of suitable care for

children and teenagers with mental health and behavioural problems. The procedures and criteria to determine the degree of disability are being reformed to reduce bureaucracy and align them more closely to the actual conditions of individuals with disabilities. However, a broader assessment is needed of the effectiveness of disability benefit policies in keeping individuals with disabilities out of poverty and ensuring that the required services — including facilitating access to the labour market — are available and accessible.

The social inclusion of migrants continues to be a challenge. Social indicators show huge gaps between Greek born and non-EU born. 43.1 % of non-EU born were at risk of poverty in 2017 against 17.4 % for Greek natives, a figure well above the EU average for non-EU born (30.8 %). A similar picture emerges when looking at severe material deprivation or in-work poverty. Unaccompanied minors form a large proportion of beneficiaries of international protection. There were more than 3 000 unaccompanied minors in Greece on 30 September 2018; 2 000 applied for asylum in 2016 and 2 500 in 2017. The Greek government is making efforts to address the needs of these children. For example, several ministerial decisions were adopted to increase educational support and harmonise the age assessment procedure in reception and identification and asylum procedures. A new law on guardianship intended to provide a legal guardian to every unaccompanied minor, has been adopted but is not yet operational. Adequate housing remains a major challenge and it is estimated that there are twice as many unaccompanied minors awaiting a place in a shelter as places currently available.

In July 2018, the Greek government adopted a national integration strategy. The strategy focuses on the integration of those people benefiting from international protection and requesting such protection who are staying temporarily in the country and/or will remain after the recognition of protection status. It also aims to facilitate the return to legality of migrants who, due to the economic crisis are unable to maintain their legal status. The role of local authorities at regional and municipal level should also be strengthened. To put the integration strategy in motion, most of the measures will need EU funding, notably from the Asylum, Migration and Integration Fund and the Structural Funds.

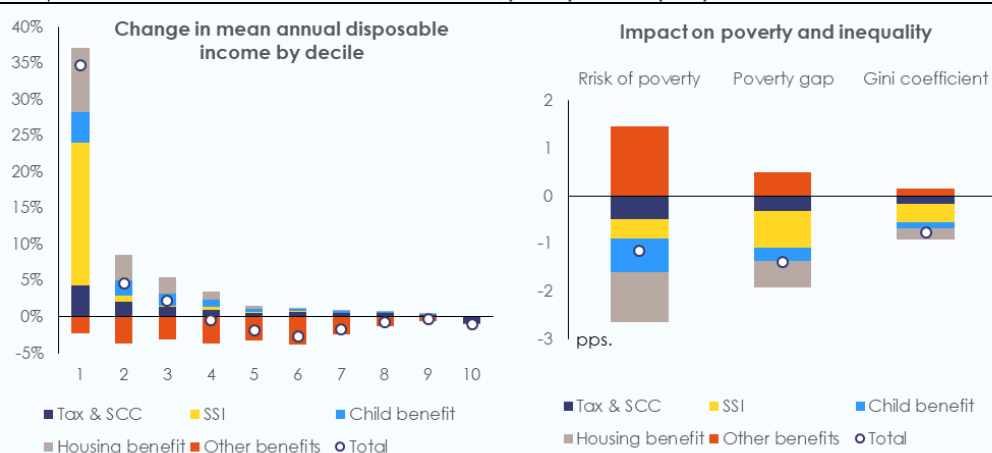
Investment priorities include financing the housing and accommodation needs of beneficiaries of international protection, their access to social welfare, to healthcare and vocational training with a view to effectively exiting the reception system.

Box 3.3.1: Social welfare reforms in Greece

Over the last four years, Greece embarked in a comprehensive reform process to modernise and improve the functioning and effectiveness of its social welfare system. This process entailed the introduction of new benefit schemes and the consolidation and complete re-design of a number of existing ones. The measures taken are considered to have improved significantly the capacity of the Greek welfare system to address poverty, inequality and social exclusion. In particular, the new guaranteed minimum income scheme (the Social Solidarity Income – SSI) introduced in 2017 provides a basic income support to the poorest households. The 2018 reform of child benefits improved targeting and generosity thereby reducing child poverty. Finally, a new housing benefit to be introduced in 2019 provides additional support to poor households who are paying rents.

The direct impact of these measures on poverty and inequality can be quantified by means of microsimulation models. Graph 1 shows the estimated impact of policy changes (legislated to enter into effect in 2017-2019) on the income distribution and on the risk of poverty, according to EUROMOD⁽²³⁾ simulations performed by the European Commission Joint Research Centre. The simulations suggest that the changes both to the tax system and to the benefit system were overall progressive, reducing inequality. In particular, the incomes of the poorest households (those in the first decile of the income distribution) are increased considerably, mostly thanks to the SSI. At the same time, given that the income guaranteed by the SSI is in general below the at-risk-of-poverty threshold, its impact on the risk of poverty is smaller compared to that of the reformed child benefit and of the new housing benefit which is to be introduced in 2019 (as both these benefits accrue to many households up to the 4th and 5th decile). Changes to the tax system and to social security contributions have also contributed to a reduction in both poverty and inequality. Finally, the negative contribution to the risk of poverty coming from the category of “other benefits” stems primarily from changes to old-age related welfare benefits, notably the gradual phasing out of a means-tested benefit for pensioners.

Graph 1: Effect of social welfare reforms on incomes, poverty and inequality



Source: European Commission Joint Research Centre, calculations based on the EUROMOD model / EU-SILC.

⁽²³⁾ EUROMOD is the tax-benefit microsimulation model for the EU. It simulates individuals' and households' benefit entitlements and tax liabilities (including social security contributions) according to the rules in place in each Member State. Simulations are based on representative survey data from the 2016 European Statistics on Income and Living Conditions (EU-SILC) and cover the main elements of direct taxation, social contributions and non-contributory benefits. Incomes reported in the EU-SILC of 2016 refer to 2015 and are uprated with 2018 uprating factors.

3.3.3. PENSIONS

The Greek authorities adopted an extensive pension reform in spring 2016 building upon reforms undertaken at the start of the European Stability Mechanism programme in August 2015. This pension reform was necessary for many reasons. It helped improve actuarial fairness and strengthen incentives to declare work and pay social contributions and work for longer, where appropriate. Reforms ensured the pension system's sustainability while reducing waste and inequalities. Finally, the reforms helped to create the fiscal space to rebalance social spending and introduce policy measures targeted at those groups most at risk of experiencing poverty, namely the young and unemployed, on whom spending remains lower than in other EU countries.

The reform is already being fully applied for the calculation of benefits of new pensioners.

Current pensioners have also had their pension benefits recalculated. Electronic insurance records are being created with priority given to those who are retiring in the near future. The authorities are focusing on widening the coverage of these records and automating the creation of new records.

In October 2018, the authorities updated their action plan for completing the functional and administrative set-up of the unified main pension fund (EFKA) by mid-2020. This reform is also receiving financial and technical support from the EU.

The 2016 pension reform helped restore the sustainability of the pension system. According to projections ⁽²⁴⁾ that have been reviewed by the Economic Policy Committee's Working Group on Ageing Populations and Sustainability, the reform is projected to reduce public spending on pensions from 17 % of GDP in 2016 to just below 13 % by 2030, which is the euro area average. The freezing

of all pensions until 2022 is projected to further reduce pension spending in the long term by some 0.5 pp. of GDP ⁽²⁵⁾.

The reform also includes a very ambitious and comprehensive overhaul of the past fragmented system. It improves intra- and intergenerational equity. The harmonisation of pension benefit and contribution rules leads to the equal treatment of all insured people across different categories and guarantees equality between the generations. The non-pro rata application of the new pension rules (a unique feature of the Greek reform compared to reforms in other EU countries) assures that the overly generous rules from the past will no longer be applied to new retirees. Furthermore, adjusting current pensions via the recalibration process means that, over time, current beneficiaries will be treated the same as those that will retire in the future. As such, the reform strongly increases intergenerational equity.

While the reform was clearly and urgently needed, it was designed to limit any negative impact on a society already strained by the prolonged crisis. A significant consideration has been the fact that in many households receiving a pension, the pension is the main or only source of income for a number of people, including those of younger generations (sometimes more than one).

3.3.4. HEALTH CARE

Greece scores well in all main health indicators.

Life expectancy in Greece is 81.5 years, just above the EU average. The same applies to healthy life years, which at 64.2 still above the EU average. Disparities in self-reported health across different socioeconomic groups are not that large, with the lower income group displaying a moderate improvement.

⁽²⁴⁾ European Commission (DG ECFIN) and Economic Policy Committee (Ageing Working Group) (2018): 'The 2018 Ageing Report: Economic and Budgetary Projections for the EU Member States (2016-2070)', European Economy, Institutional papers, No 079, May 2018.

⁽²⁵⁾ The freezing of pensions in 2019-2022 was pre-legislated on 18 May 2017. The other pre-legislated pension measures will not be implemented see section 3.1.2 European Commission (DG ECFIN) (2018): 'Enhanced surveillance report — Greece 2018 November', European Economy, Institutional papers, No 090, November 2018, page 242424.

Despite an oversupply of medical specialists, the perception of unmet needs for medical care is high. In the Social Scoreboard (see Box 3), self-reported unmet need for medical examination due to cost was one of the highest in the EU in 2017 (8.2 % vs an EU average of 1 % on) ⁽²⁶⁾. At around 34 % in 2016, household out-of-pocket payment as a proportion of total current health expenditure was amongst also among the highest in the EU %. However, both indicators decreased between 2015 and 2016 with the introduction of universal coverage as from 2016, the uninsured and those belonging to vulnerable social groups have the right to free access to public healthcare facilities. In addition, a far-reaching reform of the Primary Healthcare System was initiated in 2017.

Ageing will likely pose a challenge to ensuring the medium and long-term fiscal sustainability of healthcare expenditure. Total current healthcare spending in 2016 amounted to 8.5 % of GDP and public spending to 5.2 % of GDP (compared to the respective EU averages of 8.4 % and 6.2 % of GDP). However, due to the impact of the expenditure ceilings, this figure does not reflect the full extent of government spending ⁽²⁷⁾. Moreover, health-care spending is projected to increase by 1.2 % of GDP by 2070 (compared with a projected EU average increase of 0.9 % of GDP). If non-demographic drivers are included in addition to demographic driver, the increase in health care expenditure is expected to reach 2.0 % of GDP by 2070 (1.6 % for the EU) ⁽²⁸⁾.

Spending efficiency in Greece is low The country is among the highest in the EU in terms of expenditure on inpatient care and on pharmaceuticals and other medical non-durable

goods, while it is among the lowest in outpatient and preventive care.

Pharmaceutical spending is very high due to an overconsumption of pharmaceutical products.

Pharmaceutical spending was extremely high in Greece one decade ago, with EUR 5 billion in 2009, by far the highest share of GDP spent on pharmaceuticals in the EU (above 2 % of GDP). While improvements were recorded over the years, the pattern of overconsumption has not yet been fully resolved. Greece has one of the highest antibiotic use and one of the highest rate of antimicrobial resistance in the EU. Therapeutic protocols and the tools to assess pharmaceuticals based on affordability and cost-effectiveness, such as health technology assessment are underdeveloped. Also due to lack of such tools, Greece introduced high-cost innovative drugs into the reimbursement list, exceeding affordability and disregarding cost-effectiveness, causing hospital (and general) pharmaceutical expenditure to remain higher than otherwise possible.

Greater efficiency should be achieved with the ongoing reform of the primary health sector.

The reform of the primary health care sector introduces a new and improved system that covers the whole population. The system is underpinned by multidisciplinary teams, built around general practitioners and paediatricians in primary health care units (TOMYs'). The aim is for the whole population to eventually be registered with a primary health care units (TOMY) or family doctors. Both of these are expected to become the first point of contact, acting as a health consultant/adviser for patients and navigates them in the health care system. However, the low number of general practitioners and nurses pose challenges. Conditional on its full implementation, currently supported by EU funds, this system can improve efficiency and generate savings, reducing the excessive reliance on costly hospital services, countering the effect of supply-induced demand, reducing avoidable hospital admissions and unwarranted use of emergency care services.

Measures to increase the cost-effectiveness of hospitals are being introduced.

Efficiency should be strengthened by improving governance, ensuring that hospital managers are well trained highly qualified and supported by modern management control tools, and by reviewing

⁽²⁶⁾ As the level remains above average even for the 4th quintile (i.e. the second wealthiest), this may partly reflect a cultural bias, but overall this is clearly linked to the consequences of loss of insurance coverage in a system previously without universal coverage and to the impact of the crisis on households' finances and the affordability of previous standards in terms of health care goods and services.

⁽²⁷⁾ Statistics only account for the level of spending based on the expenditure ceilings. However, in Greece the value of public provision normally exceeds the legislated ceilings, though this does not result in public spending but in payback from providers.

⁽²⁸⁾ Respectively, according to the Ageing Working Group Reference Scenario and Ageing Working Group Risk Scenario.

hospital reimbursement. The latter would involve adopting a proper diagnosis related groups system (a methodology for activity-based costing for hospital services) ⁽²⁹⁾. Health procurement has many deficiencies ⁽³⁰⁾ and would benefit from more and more targeted centralised purchasing. To this end, Greece has adopted a national public procurement strategy and set up, in 2017, an independent central purchasing authority for health (EKAPY) and is introducing centralised procurement. This aims at increasing efficiency and cost-effectiveness, strengthening technical expertise and tackling the issue of corruption and waste. The areas of capacity building (diagnosis related groups system and centralised procurement) may benefit from additional investment in information technology infrastructure or human resources.

Developing long-term care services is a long-standing issue for Greece and further investments are needed. In 2016, the proportion of dependent ⁽³¹⁾ people above 65 years old was among the highest in EU, yet long-term care is an underdeveloped policy area. No comprehensive formal long-term care services are in place and the primary responsibility for the financial and practical support rests on the dependent person's family. The proportion of the population using professional care in Greece was below the EU average, mainly for financial reasons (63.3 % vs 32.2 % EU average). There is a geographically uneven development of services and strict eligibility criteria. In 2014, Greece allocated only 2 % of overall health spending to long-term care, far lower than the EU-27 average of 15 %.

3.3.5. EDUCATION AND SKILLS

Education is crucial to income and employment growth potential, future competitiveness and

⁽²⁹⁾ The KEN (Κλειστά Ενοποιημένα Νοσήλεια), the current Greek version of DRGs, is currently based on the Australian Diagnosis Related Groups system, but has not been accurately adjusted to the Greek cost structure, and may be creating perverse incentives to providers.

⁽³⁰⁾ These include a lack of specialised personnel in all contracting authorities to carry out procedures, inefficient programming of purchases and irregularities in the technical specifications of award procedures and a very low rate of publication of contract notices for health procurement.

⁽³¹⁾ People with severe limitation and difficulties in personal care activities.

social mobility. Providing the skilled labour necessary for the economic recovery, reducing youth unemployment and addressing weaknesses in children's educational performance are key priorities. Greece lags behind other Member States in terms of its Programme for International Student Assessment (PISA) scores and in terms of timely completion of first tertiary degrees. The OECD published a review of the Greek educational system in April 2018 (OECD, 2018b). Implementing the OECD's recommendations for improvement should help remedy the situation. However, no specific steps have been taken so far.

The education system is hampered by low and inefficient spending. At 4.3 % in 2016, education spending as a share of GDP remained the same as in 2015 and below the EU average (4.7 %). The ageing population and the projected reduction in the number of children over the next decades highlight the need to improve the use of resources in the education system and provide lifelong learning opportunities to adapt to the changing composition of society. The monitoring of expenditure is currently insufficient. It could improve by consolidated budgets and consistent data collection (OECD, 2018 b). To achieve the latter, the Ministry of Education, Research and Religious Affairs has signed a memorandum with the Hellenic Statistical Authority (ELSTAT).

Improving educational outcomes while ensuring inclusive education remains a challenge. The 2015 results of the Programme for International Students Assessment (PISA) show a significant underachievement in basic skills overall and a wide performance gap between native and foreign-born students. Students with special needs are mostly included in mainstream schools, but long waiting times — up to three years — for needs diagnosis leave many children without timely therapeutic and/or learning support. To remedy the situation, new Centres for Educational and Counselling Support have been provided for under Law 4547/2018, with the hiring of additional staff.

Negative effects on school education include low levels of autonomy and accountability and a lack of long-term planning. While evidence suggests that students' performance improves in line with increased school autonomy, including a school's autonomy over resources and curriculum (OECD, 2018c). Greece has one of the most

centralised education systems within the OECD (OECD 2018a). Accountability and monitoring which feeds back into policy design are largely missing. Reliance on tutorial schools (*frontistiria*) and private tuition is high and teacher initial training, especially at secondary level, does not sufficiently incorporate pedagogical education. Legislation passed in July 2018 introduced the evaluation of administrative executives in the education sector and self-evaluation for schools as measures to achieve more accountability in the system. However, it abolished teacher evaluation. A strong reliance on temporary non-renewable contracts for teachers undermines continuity in schools. As of 2019, 15 000 permanent teachers are expected to be hired over a three-year period, among them 4 500 special needs teachers.

Substantial efforts have been made to integrate recently arrived migrants into education, but major challenges remain. Close to 60 % of the 24 000 migrant and refugee children who were in Greece in October 2018 have been integrated in education in the 2018/2019 school year. Sustained efforts and investments will be needed to improve this ratio and the quality of education provided.

Tertiary educational attainment has risen further, while employability of recent graduates, strong outward mobility and skills mismatches remain a challenge. Greece is above the EU average for tertiary education attainment in 2017 (43.7 % vs 39.9 %). With more than 30 000 students enrolled in a degree programme abroad in 2014/2015. Greece is fourth in the EU for outward mobility in absolute numbers after Germany, France and Italy (European Commission, 2018d). The employment rate for recent tertiary graduates rose by 8.1 percentage points in 2014-2017 reaching 52.1 % in 2017. However, this was still well below the EU average (79 %). Greece ranks very low on the European skills index with pronounced skills mismatches, particularly as regards tertiary graduates working in jobs that do not require higher education (Cedefop, 2018).

Mergers between technical education institutions (TEIs), which focus on applied sciences, technology and art and universities have commenced in 2018. However, given the lack of a strategic plan or a comprehensive prior evaluation, it is unclear how the upgrading of technical

education institutions will serve to improve the fragmented higher education landscape.

Major reforms have been adopted to upgrade the Vocational Education and Training (VET) system in Greece, but its attractiveness remains low and further investment is needed. The proportion of students in upper secondary vocational education and training in Greece remains stable at around 30 %, which is far below the EU average (47.3 %) and drop-out levels are higher than in general education. In 2017, common quality frameworks for apprenticeships and vocational education and training curricula were prepared and new governance bodies were set up. A European Social Fund programme ('*New beginning for EPAL*') to improve the role and image of vocational education in Greece, has been extended to all upper secondary vocational schools (EPAL). The apprenticeship system has been further expanded, but the number of apprenticeships offered in the private sector remains low. To strengthen labour market relevance, systematic partnerships and strategic cooperation with all stakeholders at local, regional and national level are required. An overarching system for diagnosing labour market needs is in place, but outputs are insufficiently reflected in training programmes, including for the unemployed. High quality standards of inputs (curricula) and outputs (graduates) for training provision are warranted.

Despite the need for improving workers' skills, participation in adult learning remains very low. At 4.5 % in 2017, participation in adult learning was well below the EU average (10.9 %).⁽³²⁾ In 2015, 21.7 % of Greek companies provided vocational training to their employees (EU average: 72.6 %) and only 18.5 % of employees participated in this training (EU average: 40.8 %) — the lowest rate in the EU, calling for further investment.

3.3.6. INVESTMENT

Increased investment to support employment, skills, education and training and social inclusion

⁽³²⁾ According to the benchmarking exercise in the area of adult skills conducted within the Employment Committee. See European Commission (2018a) for details.

is important for Greece to improve its productivity and long-term inclusive growth. Skills shortages and mismatches are among the obstacles to job creation, especially in innovative sectors that provide quality employment. This, points to the need to invest more in training education infrastructure and to better align education curricula with labour market needs. Harnessing the full labour potential also requires more investment

in social inclusion, strengthening the capacity of the public employment service and increasing the availability of childcare and long-term care services, paying attention to any geographic disparities in their availability. In view of the rising number of non-EU nationals settling in Greece, EU funds should support the implementation of the national integration strategy adopted in 2018 by the Greek government.

Box 3.3.2: Technical support by the Structural Reform Support Service

The Commission can provide tailor-made technical support upon a Member State's request via the Structural Reform Support Programme to help Member States implement growth-sustaining reforms to address challenges identified in the European Semester process or other national reforms. The technical support for structural reforms in Greece was initiated in July 2011, when the Commission set up a special Task Force for Greece, at the request of the Greek authorities to help the country undertake a series of reforms, stemming from obligations under the financial assistance programmes, and to increase the absorption of European Structural and Investment Funds. From July 2015 onwards, this technical support continued to be carried out under the Structural Reform Support Service. To date, more than 90 technical support projects have been implemented or are ongoing and more than 40 are in the pipeline. While Greece exited the European Stability Mechanism stability support programme in August 2018, the authorities continue implementing and completing key reforms.

In the area of revenue administration, tax policy and public financial management, the Commission is assisting Greece with reforming its tax policies and revenue administration, as well as with its management of public finances. In that context, Greece received support in setting up a new Independent Authority for Public Revenue, ensuring efficient collection of taxes. Support is also provided for actions to remove bottlenecks to arrears clearance, for the introduction of a state-of-the-art government budget classification structure and for a spending review, helping to redirect resources to socially important causes.

In the area of finance and access to finance, the Commission is assisting Greece in improving access to finance for companies, increasing financial supervisory capacity and ensuring an efficient allocation of capital. For example, Greece has received support for the introduction of an out-of-court workout mechanism for the settlement of debt by Greek enterprises to reduce non-performing loans. The authorities have also benefitted from support for setting up a new electronic auctions platform for the collection of private debt collaterals, allowing private claims to be settled without recourse to a court.

In the area of the labour market, education, health and social services, support has been provided to improve the Greek social welfare, labour, pension, health and education systems. For example, Greece benefitted from support for the introduction of a national guaranteed minimum income (the social solidarity income), which provides a basic level of protection against extreme poverty. Support was also provided to Greece to consolidate a large number of pension funds into a single social security fund (EFKA), leading to a more robust and well managed social security system, as well as to significantly reform and improve the effectiveness of activation policies. As regards health, the Commission supported the Greek authorities in the establishment of a Centralised Procurement Agency for the Health sector.

In the area of growth and business environment, the Commission has supported Greece in boosting competitiveness and innovation for businesses and in building a strong and green economy. In that respect, Greece received support for simplifying the procedures for setting-up and running a business through the introduction of a new investment licensing system, to further enhance the simplification of administrative burden on business, and for the setting up of an entrepreneurship observatory. Support was provided also in the field of energy, to develop the national electricity and gas markets according to EU standards and for the implementation of extensive OECD recommendations (Toolkits) to improve competition. Greece has also benefitted from support to set up and complete the national cadastre with the aim of clarifying property rights.

In the area of governance and public administration, technical support was provided to modernise the Greek public sector at both central and local levels. Greece has been supported e.g. in the improvement of human resources management, in the digitisation of its public sector and in the definition and implementation of the National Digital Strategy, a basic pillar supporting almost any other reform. Greece has also received support for reforming its judicial system, including the introduction of alternative dispute resolution mechanisms, aimed at speeding up the hearing of cases and proceedings and eliminating backlogs in the treatment of court cases and focusing on digital justice.

Box 3.3.3: Monitoring performance in light of the European Pillar of Social Rights

The European Pillar of Social Rights is designed as a compass for a renewed process of upward convergence towards better working and living conditions in the European Union.⁽¹⁾ It sets out twenty essential principles and rights in the areas of equal opportunities and access to the labour market; fair working conditions; and social protection and inclusion.

SOCIAL SCOREBOARD FOR GREECE		
Equal opportunities and access to the labour market	Early leavers from education and training (% of population aged 18-24)	Better than average
	Gender employment gap	Critical situation
	Income quintile ratio (S80/S20)	Weak but improving
	At risk of poverty or social exclusion (in %)	Critical situation
	Youth NEET (% of total population aged 15-24)	Critical situation
Dynamic labour markets and fair working conditions	Employment rate (% population aged 20-64)	Critical situation
	Unemployment rate (% population aged 15-74)	Weak but improving
	Long-term unemployment (% population aged 15-74)	Weak but improving
	GDHI per capita growth	Critical situation
	Net earnings of a full-time single worker earning AW	On average
Social protection and inclusion	Impact of social transfers (other than pensions) on poverty reduction	Critical situation
	Children aged less than 3 years in formal childcare	Weak but improving
	Self-reported unmet need for medical care	Weak but improving
	Individuals' level of digital skills	To watch

Member States are classified according to a statistical methodology agreed with the EMCO and SPC Committees. The methodology looks jointly at levels and changes of the indicators in comparison with the respective EU averages and classifies Member States in seven categories (from "best performers" to "critical situation"). For instance, a country can be flagged as "better than average" if the level of the indicator is close to EU average, but it is improving fast. For methodological details, please consult the draft Joint Employment Report 2019, COM (2018)761 final.

NEET: neither in employment nor in education and training; GDHI: gross disposable household income.

Greece faces challenges with regard to most of the indicators of the Social Scoreboard supporting the European Pillar of Social Rights. Although the situation in the labour market has been improving, as illustrated by a decreasing unemployment and long-term unemployment rates, there are still challenges related to equal opportunities, access to the labour market and social protection and inclusion. In particular, labour market participation is chronically low, in particular for youth, women, older workers and people with disabilities. Such negative performance reflects the legacy of the 8-year long economic crisis, but also structural barriers to labour market participation. As also illustrated by the Social Scoreboard, Greece performs well only in terms of educational attainment, with a lower-than-average share of early leavers from education and training. This as well can be related to the crisis, as the lack of job opportunities increases the value and attractiveness for students to complete their education. At the same time, the system of vocational education and training is still underdeveloped. **Due to time lags, the effects of recent reforms to the Greek social welfare system are not yet captured by the statistics.** Although the impact of social transfers on poverty reduction in Greece is one of the lowest in the EU, recent reforms (such as the introduction of a guaranteed minimum income scheme, more generous and better targeted child

benefits, and a new rent subsidy) are expected to have a positive impact in reducing material deprivation, child poverty, income inequality and housing cost overburden.

The provision and availability of social services remains limited. Further sustained investments would be required to improve the availability of formal childcare arrangements, the provision of long-term care services, and tackle the high self-reported unmet needs for medical care.

⁽¹⁾ The European Pillar of Social Rights was proclaimed on 17 November 2017 by the European Parliament, the Council and the European Commission. https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

3.4. COMPETITIVENESS REFORMS AND INVESTMENT

3.4.1. PRODUCTIVITY AND INVESTMENT* ⁽³³⁾

Several years of underinvestment have generated significant investment needs in the Greek economy. Strengthening investment activity will be instrumental in underpinning longer-term growth. Key public and private sector sectoral investment priorities include transport and logistics, sustainable regeneration of urban and most disadvantaged and deprived areas, energy efficiency and infrastructures, environmental protection, digital technologies, employment, skills, education and training, social inclusion and integration (see Section 3.3.6), health and R&D, mainly through the development of smart specialisation strategies in sectors such as agro-food and tourism.

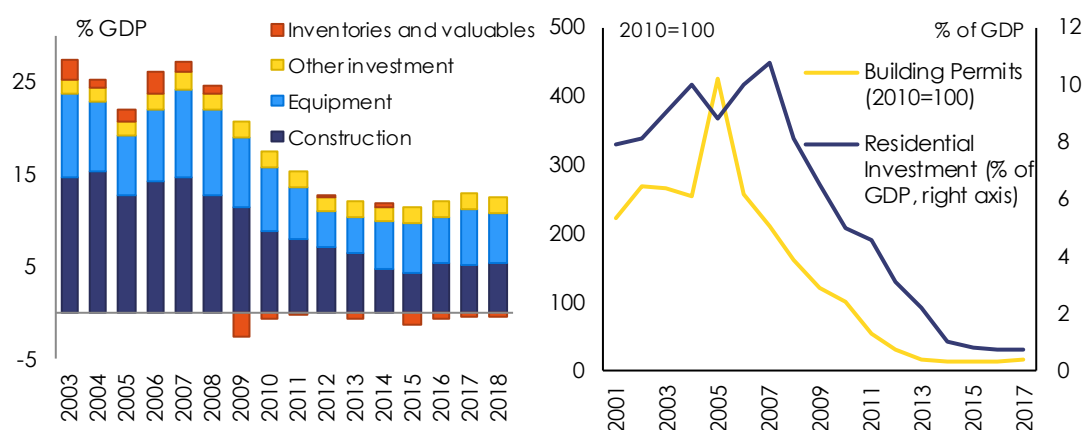
The Greek economy is currently characterised by relatively low productivity because of both cyclical and structural factors. Greece still needs to redress imbalances and complete its external adjustment process by realigning productive capacity and living standards. After a sharp contraction in consumption in the recent years, the remaining part of the adjustment should come from the supply side of the economy, through higher productivity and exports. The reduction of investments, emigration of skilled workers and high long-term unemployment since the beginning of the crisis, caused a deterioration of human and physical capital, thus resulting in low productivity.

⁽³³⁾ An asterisk indicates that the analysis in the section contributes to the in-depth review under the MIP (see Section 3 for an overall summary of main findings).

Productivity growth was stagnant even before the crisis (see Graph 1.4), indicating structural problems in the allocation of productive factors that predate the crisis. While the economic recovery should address the cyclical component of productivity losses, an improved business environment is needed to tackle the structural component of sluggish productivity growth. Such an environment would favour the creation and expansion of competitive firms and allow productive firms to thrive and gain market shares. Such reforms would attract domestic and foreign productive investments which could then result in more rewarding and rewarded jobs, drawing talent and providing valuable inputs to other firms and products to consumers at home and abroad, thus activating a virtuous circle of shared and sustainable growth.

Greece has undertaken numerous reforms to improve its business environment, increase competition, simplify investment licensing and reduce excessive regulatory burden. However, despite a progress in various areas, much remains to be done and the attraction of investment and deployment of high-quality human capital continue to be hindered by a relatively unfavourable business environment. Administrative burden on firms remains a major issue despite the significant progress made over the past decade in reducing the time, cost and number of procedures and regulatory restrictions to start a business. An excessive administrative burden can also give the perception of unfair practices and leave room for

Graph 3.4.1: Investments in Greece by type (left); building permits and residential investments in Greece (right)



Source: Commission services

corruption, thus discouraging entrepreneurship. To tackle these issues, continuous efforts are needed to simplify and digitise administrative procedure, to ensure a stable and predictable legislative framework and combat corruption. In addition, the implementation of the simplification reforms at the peripheral level is still incomplete and the benefits do not always reach businesses and citizens in Greece, who according to Eurobarometer surveys have the most negative perception of administrative burden in the EU.

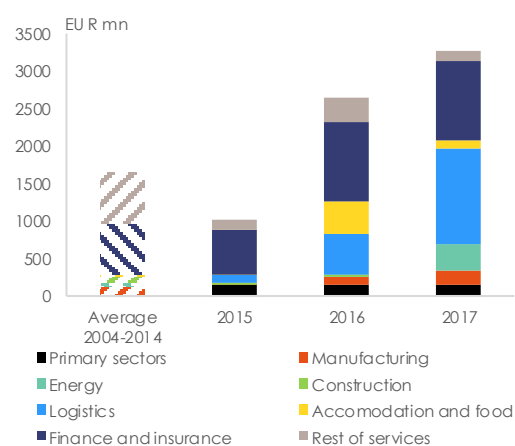
The ratio of investment over GDP reached its lowest point in 2015, and is slowly recovering since then. However, in 2018 it remains one of the lowest in the EU, still far from pre-crisis levels and from the EU average of 21 %. Private investment remains constrained in a context of deleveraging in the banking sector and high indebtedness. Residential investments completely dried up, deteriorating the existing capital stock and disrupting supply chains in the construction sector, where investments need to be restarted, for example to support urban regeneration projects in the neighbourhoods most affected by the crisis. Access to finance remains highly limited for small and medium-sized enterprises (SMEs), causing liquidity problems and constraining investments (see Section 3.2.3) (European Commission, 2018e). Public investments also decreased and hence did not compensate for the decrease in private investments. Public investment is also hampered by lack of prioritisation and poor complementarity with the private sector. In addition, the rate of foreign direct investments is the lowest in the EU, although it has slowly picked up in recent years mostly thanks to the ongoing privatisation programme.

Privatisation contributes to the public budget, and is key to stimulating new private investment and increasing economic efficiency.

For example, private sector involvement in Piraeus port has quadrupled freight traffic since 2009 and will result in new investment totalling EUR 290 million by 2020. In addition, the regional airports concession to Fraport is expected to result in some EUR 400 million in new investments by 2021, which will substantially increase airport capacity in Thessaloniki and in the Aegean islands. An impact assessment by the Foundation for Industrial and Economic Research (IOBE, 2016a and 2016b) estimates that the recent privatisation of

Thessaloniki port can increase freight turnover by one third and result in some EUR 400 million in additional investments over 10 years. The same organisation estimates the forthcoming Hellenikon investment in Athens, which will increase GDP by 2 percentage points and create 90 000 jobs over 15-20 years.

Graph 3.4.2: **Net foreign direct investments in Greece by economic sector**



Source: Bank of Greece

European funds such as the European Structural and Investment Funds are by far the main source of public investment in Greece. Also the European Fund for Strategic Investments from the so-called 'Juncker plan' has made an excellent start in Greece. As of December 2018, Greece ranks first in the EU in terms of total expected investment under the European Fund for Strategic Investments, in comparison to the GDP. Operations approved in Greece under the Juncker Plan's European Fund for Strategic Investments now represent a total financing volume of EUR 2.7billion. This is expected to trigger EUR 11 billion in total investments.

Investments into information and communication technology (ICT) and energy infrastructures are particularly needed for Greece to catch up with the other EU countries and make up for the investment slump during the crisis. Insufficient higher-speed broadband connectivity creates major bottlenecks for dynamic export-oriented businesses. Underdeveloped energy infrastructures increase energy costs for businesses and households. Innovation and human capital investments are insufficient for sustaining

productivity growth and the lack of digital skills among the population at large hinders employability and the development of innovative businesses.

Start-ups and scale-ups can play a pivotal role in Greece's economic recovery, but their full potential is still untapped. Greece presents some key conditions for start-up activity and investment, including a favourable geographical location and a high number of graduates. Yet Greece continues to perform below the EU average on most entrepreneurship indicators, including education to entrepreneurship, media attention and the share of high growth businesses. In 2017 and the first quarter of 2018, several significant measures were adopted to support innovation. These included tax exemptions for innovative companies; a regulatory framework for mediation principle in civil and commercial cases; stronger enforcement of intellectual property rights; and a licensing system for essential patents through the operation of the Industrial Property Organisation.

The lack of sufficient intangible investments contributes negatively to Greek productivity growth. The reduction in the stock of intangible capital stems from low investment rates in R&D and other intangibles as recorded in national accounting and from economic competencies and intangibles not captured in national accounts ⁽³⁴⁾. Greece therefore has a good opportunity to increase productivity if it implements policies to identify and remove investment barriers for different types of intangibles.

The swift completion of the cadastre and forest maps financially supported by EU funds should increase legal certainty and simplify licensing procedures, stimulating investments in sectors such as tourism, manufacturing, aquaculture and mineral and natural resources. The government has developed a road map for fully completing these projects by mid-2021 and is implementing law 4447/2016 on spatial planning. Together with the streamlining of nuisance categories for land use and environmental classifications, legislated in July 2018, this reform

has the potential to stimulate a sustainable and organised reindustrialisation of the country. However, it is important to pass the relevant secondary legislation for the rationalisation of nuisance categories swiftly, to ensure implementation based on a clear action plan and an inclusive consultation process.

As regards export performance, the efforts undertaken to regain external competitiveness by internal devaluation seem to be paying off, resulting in strong exports in 2017 and 2018. Export growth is not only robust in general, but also broad-based and balanced in geographic and sectoral terms, and is therefore resilient to future external shocks. However, Greece was starting from a low base and compared to the rest of the EU, its exports are directed towards primary products and goods with low value added and a low innovation component. Greece is also the least open country in the EU in terms of investments and trade flows, which is even more striking given its small size and favourable geographic position.

Tourism is a key contributor to exports and a vital driver for the Greek economy. In 2017, it directly accounted for 10.3 % of GDP, while the sum of its direct and indirect contribution is estimated at between 22.6 and 27.3 % of GDP. In 2005-2017, the number of tourist arrivals grew by 89 % – up to 27.2 million in 2017, while overnight stays rose by 36.8 %, to 209.8 million in 2017. Overall, revenue subsequently increased by 32.4 %, to EUR 14.2 billion in 2017 (INSET, 2018).

In its National Growth Strategy, the government set an ambitious target for exports, namely 50 % of GDP. This target is ambitious, yet attainable, considering the recent improvements in cost competitiveness, privatisations, logistics infrastructures and business environment legislation ⁽³⁵⁾. A series of roadmaps have been prepared to promote export and streamline export procedures. Yet, they are still complex to navigate for most firms, which is discouraging them from exporting and

⁽³⁴⁾ Analysis by DG Joint Research Centre – Knowledge for Finance, Innovation and Growth Unit – based on INTAN-INVEST data (<http://www.intan-invest.net/>)

⁽³⁵⁾ Following the Council Recommendation 2016/C 349/01, Greece is in the process of appointing the Centre of Planning and Economic Research (KEPE) as National Productivity Board.

participating in international supply chains, from which Greece is virtually absent.

Research and development

The economic crisis had a limited impact on research and development (R&D) expenditure, but the overall levels remain low, negatively affecting Greece's growth potential. Investment in R&D has increased in nominal terms from EUR 1.6 billion in 2008 to EUR 2 billion in 2017. However, it remains low compared with other countries (1.1 % of GDP against the EU average of 2.1 % of GDP). The business sector is for the first time the largest R&D investor in Greece, followed by the higher education and the public sector (Amanatidou et al., 2018).

Despite the recent significant increase in business R&D, in 2017 it was still well below the EU average (0.6 % of GDP vs 1.4 %). The science-business links also remain weak as evidenced by the drop in the number of public-private scientific co-publications as a proportion of total publications ⁽³⁶⁾. In addition, overall technological development remains low as also reflected in the very low number of patents compared with other countries ⁽³⁷⁾. Therefore, investments are necessary in the short and medium term to tackle these problems.

The Public Research and Innovation system has benefited from stable levels of funding in the past decade. However, the low level of public R&D intensity ⁽³⁸⁾ coupled with the absence of a performance-based funding system, has a further negative impact on already relatively low levels of scientific excellence ⁽³⁹⁾. The government is adopting a series of measures to tackle persistent

weaknesses and some of the most pressing challenges in the research and innovation system. Various co-financed projects have recently been set up to boost research and innovation activities, such as the Research-Create-Innovate initiative with an allocated budget of EUR 543 million. For instance, the set-up of an equity fund supported by EU funds has been set up to inject liquidity in start-ups and innovative businesses.

Research and innovation strategies for 'smart specialisation' have been developed at national and regional levels in line with international practice. These have led to the identification of key growth sectors such as agro-food, tourism, health, information and communication technology, energy and sustainable development, transport and logistics. However, the national priority areas have not yet benefited from smart specialisation strategies with concrete time-limited deliverables aimed at stimulating new investments.

Digital economy

The digital transformation of the Greek economy and society remains one of the most challenging areas. Effective investment in fast and ultrafast broadband is urgently needed for Greece to operate in a global business environment. Currently, Greece lags considerably behind the targets set in the national digital strategy adopted by the government in 2016. Broadband access at home and internet use are well below the level of the rest of the EU, with the only positive exception of the region of Attica.

A stable regulatory and legislative framework must be put in place, and barriers to entry must be eliminated to create conditions for lower prices. Support measures to boost demand from small and medium enterprises and the general public may also be needed. Further efforts are needed to encourage the use of e-commerce by small and medium enterprises. EU funds cover market failures to close the connectivity gap between urban areas and rural, sparsely populated, island, mountainous and remote areas.

⁽³⁶⁾ Compound Annual Growth Rate 2010-2017: -4.8 %.

⁽³⁷⁾ 11 PCT patents per population in 2014 vs. EU average of 102.

⁽³⁸⁾ 0.6 % of GDP in comparison with the EU average of 0.7 % in 2017.

⁽³⁹⁾ 8.6 % of highly cited publications in comparison with the EU average of 11.1 % in 2017

Box 3.4.1: Investment challenges and reforms in Greece

Macroeconomic perspective

The investment rate in Greece reached 12.9 % of GDP in 2017, still significantly lower than the EU average investment rate of around 21 % of GDP. This will amount to an investment gap compared to pre-crisis of slightly more than EUR 15 billion per annum. Eurobarometer surveys show that many factors hinder investments, including a lack of demand, administrative barriers, slow justice system, access to finance and high tax rates. Given the insufficient level of domestic savings and the on-going deleveraging in the financial sector, external financing will be needed for further investments. Public investments have been excessively focussed on transport infrastructures. A key challenge is the need to develop complementarities between public and private investments.

Assessment of barriers to investment and ongoing reforms

In addition to macroeconomic constraints, the overall business environment in Greece does not appear to facilitate investments, notably due to high corporate tax rates, difficult access to finance, weak administrative capacity and contract enforcement as well as regulatory barriers. A National Growth Strategy and specific action plans have been drafted to reduce the administrative burden and improve the licensing framework, but implementation challenges persist. Privatisation can significantly contribute to attract new investment and management expertise.

Main barriers to investment and priority actions underway

1. Securing macroeconomic, fiscal and financial sector stability is crucial for the recovery of investment. Continued fiscal stability, tackling non-performing loans, strengthening the domestic capital market, and reducing corporate tax rates are crucial to restart private sector investment.
2. The continuation and completion of on-going microeconomic reforms to improve the business environment, public administration, and the justice system are crucial to provide the right framework conditions for firms to scale up and invest. That includes the peripheral public entities involved in the investment licensing and inspection activities.
3. Continued progress on privatisation and long-term concession agreements are key to attract new investment and create new jobs in major investment projects. Improving the governance of public investment and strengthening its complementarity with private investments, especially providing essential infrastructure, encouraging small and medium sized enterprises' investments, and promoting skills-development are crucial to support this process and achieve social integration.

Key public and private sector sectoral investment priorities include transport and logistics, sustainable regeneration of urban and most disadvantaged and deprived areas, energy efficiency and infrastructures, environmental protection, digital technologies, employment, skills, education and training, social inclusion and integration, health, and research and innovation, mainly through the development of smart specialisation strategies in sectors such as agro-food and tourism.

The Greek authorities are currently working on a feasibility study for the setup of the new Hellenic Development Bank (HDB). The feasibility study will design the implementation process from the development bank's scope until its implementation roadmap (including among others identifying the scope, governance, legal framework, and strategic and business plans as per the best international standards). The development bank is envisaged to support enterprises and to promote the economy and the business environment by supporting small and medium-sized enterprises, fostering innovation, facilitating investments in infrastructure and encouraging equity investments and other alternative financing sources.

Improving digital skills and increasing the proportion of information and communication technologies employment remains a challenge.

Improving digital skills among young adults is crucial given the urgency of the digital transformation of the economy and society. In

2017, 54 % of Greeks aged 16-74 did not have at least basic digital skills, putting Greece well below the EU average. The proportion of information and communication technology (ICT) specialists in total employment also remains very low (1.4 %) with a significant gender gap ⁽⁴⁰⁾. In schools, digital education is not sufficiently integrated into curricula, and infrastructure appears insufficient.

The National Growth Strategy launched in July 2018 addresses some of the key challenges identified to reap the benefits of an increasingly digitised society and global economy. The national digital strategy adopted in 2016 already envisaged investments in all categories of the digital economy. It will require additional efforts to effectively implement it at all levels of public administration and extend its effects to individuals. The agreed roadmap and new framework for creating information and communication technologies projects should mark a new era for digital governance. Reforms undertaken with EU funds (e-government, e-justice, and e-health) should be completed. Online digital public services to citizens and the business community, digital document management and remote digital signature and e-commerce, need further expansion. Additional efforts are needed to encourage the use of e-commerce by small and medium-sized enterprises.

3.4.2. (SINGLE) MARKET INTEGRATION* ⁽⁴¹⁾

Greece's growth potential has been hampered by its peculiar economic structure. Greek labour productivity per hour worked in 2017 was just 64.4 % of the EU average. Part of the lag with the rest of the EU is due to a less favourable sectoral specialisation of the economy (with more than 10 % of the workforce employed in primary sectors in Greece against less than 5 % in the EU28). Firm size distribution (with 60 % of total Greek employment in micro firms of up to 10 employees) and the efficiency differentials across firms (micro firms of less than nine employees being 70 % less productive in Greece than medium

and large firms) also play an important role (OECD, 2017).

Graph 3.4.3: **Structural and demographic business statistics**
Employment and productivity according to company size



*Labour productivity: Value added per person employed, index 250+=100, 2014.

Employment: Percentage of total business economy employment.

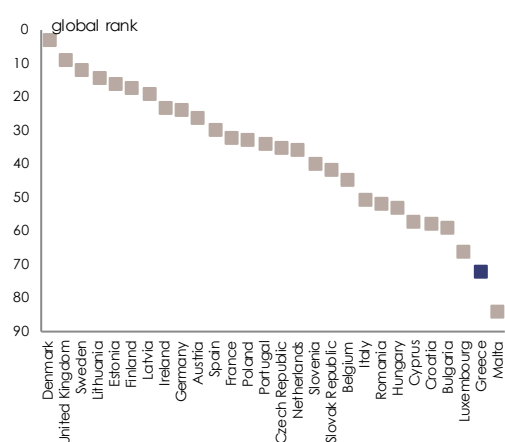
Source: OECD, "Entrepreneurship at glance 2017"

Thanks to its broad structural reforms, Greece has managed to improve its 'doing business' indicators since the beginning of the crisis. However, this builds on a weak starting point and therefore stronger efforts are needed to keep up with competitors. Since 2010, Greece has undertaken an extensive legislative reform to reduce barriers to competition, rationalise administrative procedures to start a business and streamline the legal framework of regulated professions. Yet, it is still far from global best practices. In the latest World Bank Doing Business report (World Bank, 2018a), Greece ranked 72 out of 190 economies in 'ease of doing business'. This is a significant improvement on 2009, when it ranked 109th, but it is still far from its peak performance in 2015, when it ranked 58th. The most problematic areas include registering property, enforcing contracts and accessing credit. Sector-specific product market reforms have progressed but public administration inefficiencies and red tape continue to be an obstacle for firms to grow.

⁽⁴⁰⁾ In Greece, only 12.7 % of persons employed with ICT specialists skills are women

⁽⁴¹⁾ An asterisk indicates that the analysis in the section contributes to the in-depth review under the MIP (see Section 3 for an overall summary of main findings).

Graph 3.4.4: Ease of doing business 2018

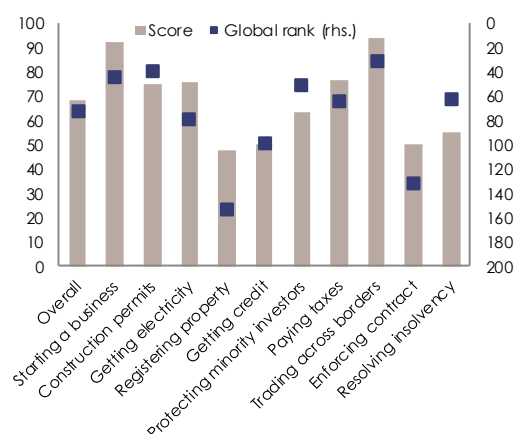


Source: World Bank Group, "Doing Business Report 2019"

One area where progress has been more visible is the procedure to establish and register new companies. Reforms in 2015 and 2016 substantially lowered the cost of setting up a company. In addition, the procedures to register new companies have been simplified and digitised through electronic one-stop shops. The general framework for investment licensing and inspections and controls was also updated and simplified recently, moving from a system of ex-ante authorisations to a system of notification and ex-post controls.

There appears to be strong growth potential in the collaborative economy. However, government policies have not been clearly supportive of that area. Recent national regulations introduced restrictive requirements on platforms intermediating transport services. While enabling legislation is still to be passed, it remains unclear how restrictively the law would apply to pure intermediation services. There also remains scope to improve digital public services (see Section 3.4.4).

Graph 3.4.5: Components of the "Ease of doing business 2018" for Greece



The score measures the distance from the best global performer (the higher the better, max = 100)

Source: World Bank Group, "Doing Business Report 2019"

Many measures have been introduced to reduce unjustified restrictions to regulated professions and barriers to entry. These reforms were based on three competition assessment reviews conducted between 2013 and 2016 by the OECD and the Hellenic Competition Commission to improve the overall regulatory framework. Most of the 773 recommendations in 14 economic sectors to reduce entry barriers and increase competition have been legislated and are being implemented. Notwithstanding recent reforms, Greece still needs to develop an integrated and transparent process to assess the proportionality, appropriateness and necessity of professional regulations, taking into account the cumulative effects of their multiple requirements. Greece still has relatively high entry barriers for several economically important professions such as lawyers and civil engineers⁽⁴²⁾, compared with the EU and the OECD average. Ongoing reforms aim to ease entry to some regulated professions, but transparency in preparatory steps needs to improve in order to make regulatory proposals more objective, fit for purpose and streamlined.

Improvements in the business environment and administrative practices should increase consumer trust, which was harmed by

⁽⁴²⁾ Communication on reform recommendations for regulation in professional services COM(2016) 820 final and SWD(2016) 436 final.

widespread unfair commercial practices. The proportion of consumers experiencing unfair commercial practices (36 %) and other illicit practices (21 %) by domestic retailers increased ⁽⁴³⁾ and has become the highest and second highest in the EU respectively. In addition, a sizeable proportion of consumers ⁽⁴⁴⁾ choose not to file a complaint when they experience problems. This could be linked to the low and decreasing knowledge of consumer rights (at 25 %, Greece has one of the lowest rates in the EU), and to the low participation of Greek retailers in Alternative Dispute Resolution mechanisms (21 %), which remains well below the EU average.

The remainder of this section will focus on selected key sectors of network industries, agriculture and environment.

Energy

The Greek energy market is characterised by a concentrated structure, relatively high wholesale prices and a reliance on fossil fuels, particularly lignite for electricity generation, as well as imported oil and gas. The incumbent Public Power Corporation (PPC) remains responsible for the majority of generation and supply. Prices were liberalised in July 2013 and only social tariffs for those in need are still in place, though market distortions keep the link between wholesale and retail electricity weak. This negatively affects the competitiveness of the economy, the climate and local environment. It also places the financial burden on consumers ⁽⁴⁵⁾, which, combined with the poor economic situation of Greece and the related low level of household incomes, has resulted in an increase of energy poverty. Greece has started to carry out a number of key reforms moving towards a more modern market model, but the correct and prompt completion of these urgently needed reforms will be crucial.

⁽⁴³⁾ Since 2016, there has been an increase by 3 and 9 percentage points respectively (European Commission, forthcoming).

⁽⁴⁴⁾ 41.5 % of those who experience problems do not complain (highest percentage in the EU) (European Commission, forthcoming).

⁽⁴⁵⁾ Greek consumers have assessed the market for electricity services in the last position out of all 25 services markets in Greece, with no improvement since 2016 (European Commission, forthcoming).

Competition levels in the electricity market remain low. Although competition has increased in recent years, the public corporation (PPC) still holds an 80 % share of the retail market as of June 2018 (down from 89.9 % in January 2017). Measures such as the NOME (Nouvelle Organisation du Marché de l'Electricité) auctions help alternative suppliers to increase their market share. Supplier switching in the market is still rather limited in Greece, indicating that consumers may not be fully reaping the benefits of liberalisation. Smart meters will aid consumers' increased engagement in the market. They enable them to participate in and benefit from energy efficiency, and demand response/flexibility schemes. However, no date has been set for their large-scale deployment, and current plans involve only pilot installations. Regarding gas, since January 2018 all customers have the right to switch suppliers.

One major concern to be addressed in the electricity market is the issue of arrears. Many customers of the public power corporation are behind on their payment obligations and collection, and improving is still slow. This issue puts a strain on the public power company (PPC's) overall financial situation and hampers its investment.

The implementation of the Target Model is advancing, although with delays. Greece is aiming to couple with the Italian and Bulgarian markets by 2019. Ensuring that the component markets (forward, day ahead, intra-day and balancing) are compliant with the network codes is critical to allow effective coupling with regional markets.

While mainland Greece has a high level of interconnection for electricity, additional investments are needed. In particular, to complete the interconnections with the Cyclades islands, already financed from EU funds and to create interconnections with Crete. The public service obligation to equalise prices on islands with those in the mainland costs more than 0.3 % of GDP per year, funded mainly by consumer fees. The effect of interconnecting the islands and mainland into a system based on the Target Model, coupled with regional markets could allow for better uptake of renewable energy, the discontinuation of polluting and inefficient diesel-based generation on islands

(which is currently needed as baseline load for those non-interconnected islands), and also more responsive pricing, thus encouraging investment.

The privatisations in the energy sector are advancing. Greece has completed the sale of 66 % of the gas Transmissions System Operator (DESFA) to private investors. The restructuring and privatisation of the gas incumbent (DEPA) is on track, with the tender for its commercial part to be launched shortly. By contrast, the tender process to sell three of Public Power Corporation's lignite plants has not been finalized and the divestiture is still ongoing. These privatisations are much needed, as they constitute an important step to increase competition in the energy markets, and are expected to attract investment.

The potential for deploying energy from renewable energy sources (RES) is very high across all sectors. After a period of rapid deployment fostered by a generous support scheme introduced in 2014, investments in renewables slowed following changes to the scheme. With the establishment of the new renewable energy sources support scheme, and the focus under the European Stability Mechanism programme on keeping its special account in surplus, the framework conditions for new investments in the Greek renewable energy sources sector have considerably improved. Moreover, the domestic renewable energy sources sector has responded positively to the establishment of this new regulatory environment. This allowed the authorities to phase out the supplier surcharge sooner than initially planned.

Energy consumption in Greece slightly increased in 2016, putting the achievement of the 2020 energy efficiency target at risk. On the requirement for achieving new savings of 1.5 % of the annual energy sales to final customers under Article 7 of the Energy Efficiency Directive, reported cumulative savings for 2014-2016 were less than 55 % of the estimated amount. Greece should make additional efforts to help meet the EU energy efficiency target. An energy efficiency programme co-funded by the EU ('Energy Saving at Home' – 'Εξοικονόμηση Κατ' Οίκον II') was re-initiated in 2018. The programme aims to improve the energy performance of residential buildings by providing interest-free loans and subsidies for the

installation of renewable energy sources and energy-saving measures.

Greece has huge potential to become a regional energy hub, both for gas and electricity, however, this requires the development of major infrastructure projects with its neighbouring countries. The gas Interconnector with Bulgaria (IGB) will connect the region's markets to additional sources of gas, notably Caspian gas through the soon-to-be operational Trans-Adriatic Pipeline (TAP). At the same time, key electricity projects, which may develop as Projects of Common Interest (PCIs), such as a Bulgaria-Greece power interconnection and the EuroAsia Interconnector will address major energy issues, such as low interconnectivity levels and Cyprus' energy isolation while also contributing to further renewable energy sources integration. Other relevant common projects are the Eastern Mediterranean Natural Gas Pipeline, the liquefied natural gas (LNG) terminal in Alexandroupolis and the hydro-pumped storage in Amfilochia. It should be noted that these projects of a common interest are eligible to apply for (or have already received) grants for studies or works through the Connecting Europe Facility Program. In its National Energy and Climate Plan to be adopted by 31 December 2019, in line with the Regulation on the Governance of the Energy Union and Climate Action⁽⁴⁶⁾, Greece will provide an overview of its investment needs until 2030 for the different dimensions of the Energy Union. This includes renewable energy, energy efficiency, security of supply, and climate mitigation and adaptation. The information provided, including in the draft plan submitted on 25 January 2019, will further contribute to the identification and assessment of energy and climate-related investment needs for Greece.

⁽⁴⁶⁾ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (Text with EEA relevance.)

Swiftly continuing to carry out the agreed reforms will ensure that the growth potential of the energy sector is unlocked. There reforms include introducing of more efficient and environment friendly technologies for lignite-fired power plants and developing innovative renewable energy sources technologies in non-interconnected islands. These reforms would also allow Greece to take full advantage of its comparative advantages, such as its sizeable renewable energy sources potential and its strategic geographic location, particularly in terms of current and future interconnection networks. This is expected to have a positive effect on all sectors through reduced production costs.

Transport and Logistics

The Greek transport system is largely road-based with all main connections rotating around the Athens – Thessalonica axis. Previous investments financed by the EU funds have created an extensive 2200 km long motorway network linked to some excellent assets: the Port of Piraeus and Athens International Airport, and contributing to Greece's growth and competitiveness in international markets. However, transport costs are still higher than in competing countries such as Turkey, Bulgaria, Romania, or in big economies like Germany, France and Italy (World Bank, 2018b). With an ageing fleet of private cars, lorries and public buses, the Greek transport sector lacks competitiveness and scores low on carbon emissions, road safety and service quality. Finally, the penetration of intelligent transport systems is poor, reflecting the generally low scores for Greece in the digital economy. A structural shift from the current practices is needed to achieve a gradual decarbonisation of the Greek economy.

New investments need to emphasise alternative modes of transport and promote regional and urban development. The privatisation of 14 regional airports is expected to support tourism development. The privatisation of the Port of Thessaloniki creates the opportunity for Northern Greece to become a major logistics and industrial hub, serving neighbouring countries. This requires close coordination of new port investments with other public sector investment schemes (e.g. local road access) and the modernisation of cross-border rail linkages. Supportive planning policies and investment in human capital can create the

conditions for socially inclusive growth and urban regeneration.

In the rail sector, the share of freight in rail transport remains low due to the sparse rail network, the non-developed market and the missing links with the main seaports. Similarly, the share of rail passengers in land transport is one of the lowest in the EU. The low capacity of the railway lines imposes an additional limitation on the number of high-speed trains that can operate. Despite the sizeable investment from the EU funds in the modernisation of railway infrastructures, in excess of EUR 3 billion over the last 20 years, the country's principal railway axis Patras-Athens-Thessalonica remains uncompleted. This hampers the multimodality of the transport system, and impacts negatively mobility and transport costs for goods and people, and ultimately on Greece's position in international trade. The electrification of the Piraeus-Thessalonica section of the railway line, the implementation of the logistics strategy and the operation of Thriasio Pedio freight complex are enabling conditions for developing rail freight transport and major new investments.

Increasing trade between Europe, the Far East and Africa strongly favours the growth of maritime transport in the Eastern Mediterranean and the Aegean Sea, where Greece could exploit competitive advantages implied by its geographical position. As demonstrated by considerable foreign investments, Piraeus and Thessaloniki have the potential to evolve into gateway ports to Southeast and Central Europe, if long distance reliable railway connections are established and that the country's seaports system is further developed to improve the competitiveness of the domestic economy.

In the road sector, Greece has one of the highest road fatality rates in the EU. The situation of vulnerable road users is of special concern, in particular the high number of motorcyclists. Effectiveness of traffic law enforcement is assessed as quite low. Seat-belt and helmet wearing rates are lower than the EU average. Greece needs to step up its efforts to enforce the rules on driving and resting times of drivers and the use of tachographs in vehicles.

A Strategic Transport Master Plan for Greece covering all transport modes (road, rail,

maritime, air, and multi-modal, including logistics) and with a time horizon of 2017-2037 is currently under elaboration by the services of the competent Greek ministries. This Master Plan will help identify and prioritise investments and soft measures necessary to improve the performance of the Greek Transport system. Investments considered for the future priorities could be: (i) the completion of the modernisation of the rail network, (ii) increased multi-modality for freight transport by improving rail connections to Trans-European Networks ports, (iii) logistics platforms and industrial zones, (iv) road safety investments, and (v) redesign of the coastal shipping network to create regional nodes that will allow faster transfer to smaller ports and islands across the Aegean sea.

Agriculture and Rural Development

Agriculture in Greece is based on small-sized, family-owned dispersed units, while the extent of cooperative organisation stays at low comparative levels, in spite of all efforts that have been made in this direction over the last thirty years. The small size offers opportunities to develop variety and product differentiation and in some mountainous regions, it is the only feasible structure. Greek agriculture employs about 500,000 farmers, corresponding to 12 % of the total labour force. The Greek agricultural sector ranks ninth among the EU Member States. EU funding of agricultural policy in Greece amounts to approximately EUR 2.7 billion per year. This includes support to the Greek Rural Development Programme of EUR 4.7 billion for the period 2014-2020.

The agricultural sector in Greece has been in crisis since mid-2000s, i.e. prior to the economic crisis, but demonstrated resilience during the crisis years. The benefit of the Greek food processing industry is one of the lowest in Europe. Greece's penetration of core European export markets is very low (less than 2 % share) and the country needs a holistic and focused product and export strategy.

The largest gains in economies of scale in the agro-food sector may come mostly from downstream and upstream farm production. The logistics and distribution system, processing, as well as farm inputs and research, are operations that exhibit large economies of scale. An

examination of the current difficulties and possibilities has led to the conclusion that the key strategic objective for the agro-food sector is to focus on gradually shifting the production model towards quality products and products with an identity, whose prices are higher and where Greek products can compete favourably.

Against this background, the Greek authorities have produced a comprehensive Agriculture and Rural Development strategy that was updated in 2017. The strategy had fed into the National Growth Strategy. The challenge now is its implementation.

Environment

Environmental legislation in Greece suffers from low quality non-codified regulations, incomplete implementation, delays and limited efforts to make information available to citizens and investors (WWF, 2018). There is a genuine difficulty for the public (citizens, public administration and prospective investors) to navigate through the Greek corpus of legislation and administrative decisions and this impact investments.

The management of solid waste continues to be a major structural challenge. Greece still relies heavily on landfilling (82 % compared to an average 24 % in the EU) and mechanical-biological treatment as opposed to more modern techniques. It runs a high risk of not being able to meet the revised EU prevention and recycling targets (50 % by 2020), as only 17 % of municipal waste is currently recycled against an average 46 % in the EU (European Commission, 2018f). In spite of improvement in recent years, there are still some illegal landfills in operation, resulting in two costly infringement procedures for non-compliance with EU law on illegal landfills and hazardous waste management. Approximately EUR 1 billion of EU Funds is available to effectively tackle the waste management.

Progress has been made regarding the legal and institutional steps taken to increase waste recycling and the expansion of Extended Producer's Responsibility (EPR) schemes. The strategic framework for waste management is now in place, with the adoption of the national and regional Waste Management Plans. However, the

use of economic instruments to incentivise prevention, reuse and recycling is insufficient and the existing schemes are performing poorly.

Management plans and associated legal tools have been developed for a number of nature protection sites, in most cases supported by EU funds, but very few are formally adopted and implemented to date. A major challenge for the effective protection and management of the Natura 2000 is the absence of an efficient national governance system, which recent legislation is addressing by attributing individual management bodies to all Natura 2000 sites.

Concerning the treatment of urban and industrial wastewater, investments are needed to improve water treatment in line with the guidelines of the Urban Waste Water Treatment Directive for which currently EUR 1 billion of EU Funds is available. Only about 90 % of the generated load is connected to collecting systems, representing slightly more than half of the Greek agglomerations. The treatment of the rest needs upgrading. Moreover, the necessary information to analyse compliance with the directive in these systems is missing, reflecting a general lack of data availability in the water sector. Significant investments are required to fully comply with the Water Framework Directive and the Floods Directive in order to proceed with important actions against the salinization of ground waters, the re-naturalisation of the flow of rivers, and measures for flood prevention and mitigation.

3.4.3. TERRITORIAL AND REGIONAL DISPARITIES

While the crisis hit all parts of Greece heavily, disparities between Greek regions and rest of the EU have widened significantly since 2009. The greater Athens area, home to close to half of the Greek population, is more than ever the only part of the country which relatively keeps up with the developed areas of the EU, with a GDP per capita at 92 % of the EU average in 2016 (however, down from 124 % in 2009). All other regions lag behind and mostly even far behind, with 2016 GDP per capita levels having decreased to as low as 47- 48 % of the EU average in Eastern Macedonia & Thrace and in Epirus, and with three more regions being at or very close to the 50 % mark. In terms of GDP per capita, Northern and

Northwestern Greece are by now closer to their Balkan EU neighbours than to their Mediterranean EU peers.

Large disparities exist at regional level in terms of social and labour market conditions. The level of economic development and social conditions displays strong variation across regions. The lowest levels of unemployment are found in the South Aegean (16 % in 2017), a region which has benefited from the strong growth of tourism in recent years. Yet, in Eastern Macedonia, the unemployment rate was still 29 % in 2017. While the rate in the South Aegean is comparable with those observed currently in other European regions (in Member States such as Italy but also Spain, France or Belgium), unemployment and long-term unemployment rates in other Greek regions represent by far the highest rates in Europe. Like GDP and unemployment, poverty and social exclusion have important regional dimensions. The population at risk of poverty or social exclusion for Attica stands at 15.5 % but for Northern Greece at 22.3 %, Central Greece at 24.2 % and the Aegean islands and Crete at 21.6 %. In urban areas, poverty often occurs in the form of pockets of poverty and deprived neighbourhoods.

Significant and increasing intra-regional disparities persist in a number of regions, notably insular and mountainous ones. For example, the South Aegean region has the second highest GDP per capita level in Greece as it includes some of the most prosperous places in the country; but it also includes islands where basic public services, such as continuous provision of electricity and drinking water, are still an issue. A similar observation can be made for mountainous areas, in particular the remote ones on the northern borders.

The multi-variable analysis proposed in the 2016 Regional Competitiveness Index (RCI), makes clear that regional disparities in Greece have many and highly varied dimensions, going beyond the GDP, unemployment and poverty parameters. The regional competitiveness index covers the components “institutions”, “macro-economic stability”, “infrastructure”, “health”, “basic education”, “higher education”, “labour market efficiency”, “market size”, “technological readiness”, “business sophistication” and “innovation”. On all but two components, Greece

lags significantly behind the EU average scores, the two exceptions being “health” and “higher education”. At regional level, only Attica scores better than the overall 2016 Greek average, and on the “business sophistication” component it does even much better than the EU average. Central Macedonia is on most components closest to the Greek average. All other regions lag far behind EU and Greek averages on most component scores.

3.4.4. INSTITUTIONAL QUALITY AND GOVERNANCE

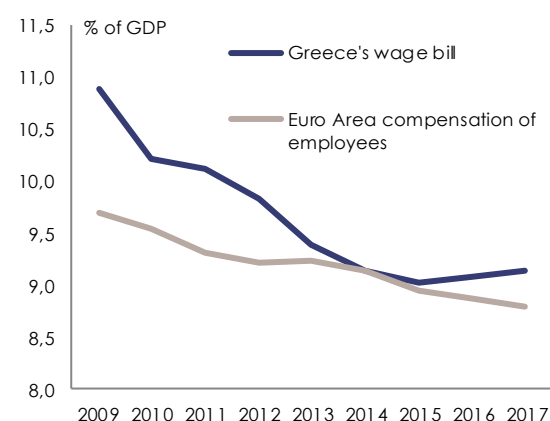
Public administration

A well-functioning public sector is essential for the proper functioning of the economy and although steps have been taken to modernise the public administration a number of weaknesses remain. The Greek public administration was substantially downsized during the first years of the crisis to reach the EU average in terms of cost (see Graph 3.4.6). Downsizing measures were accompanied by the introduction of a uniform wage grid to ensure staff with similar qualifications and experience received the same salary across the public sector. A key challenge for the future will be to keep the public administration's size broadly stable at its current level and to maintain the integrity of the uniform wage grid.

More recent reform efforts under the European Stability Mechanism support programme have focused on increasing the efficiency and improving the effectiveness of the public administration. However, low administrative capacity remains a key challenge to providing high quality public services to the citizens as well as a major obstacle to investment. This is demonstrated by Greece being in the bottom quintile in the EU as concerns the overall assessment of government performance (Thijs et al., 2018), which takes into account four indicators, namely: (i) trust in government; (ii) improvement of public administration over time; (iii) government effectiveness; and (iv) public sector performance. More specifically, as concerns public sector performance, it is indicative that inefficient government bureaucracy is listed as the second most problematic factor (after tax rates) for doing

business in the Global Competitiveness Index 2017 (World Economic Forum, 2017).

Graph 3.4.6: Wage costs in public administration



Note: imputed social contributions are not included for the Euro area.

Sources: Apogrfi database, Eurostat

Further improvement and modernisation of the public administration remains a key challenge for the future. A clear sign of the government's commitment to the public administration reform agenda was the publication of the 'National Strategy for Administrative Reform 2017-2019' (Ministry of Administrative Reconstruction, 2017). The strategy sets out the public administration's main chronic weaknesses, such as its low capacity to properly design and implement public policies and its lack of coordination. It goes on to present a comprehensive action plan with concrete steps, including on strengthening the public administration's operational capabilities. The government has already started implementing the strategy as well as initiated the work to update the strategy beyond 2019. However, further efforts will be needed, particularly to improve the regulatory environment, which is still burdened by an excess of laws that are frequently contradicting.

The codification of highly fragmented legislation and coordination within the public sector remain on the reform agenda. Following the recent adoption of a national strategy on legal codification, the implementation of the strategy will require continued efforts. Coordination within the public administration also needs to be improved and the adoption of an inter-ministerial manual on coordination Procedures (General Secretariat of the Government, 2018) is a first step

in this direction. For the manual to have a real impact, it now needs to be fully implemented. This will entail strengthening and streamlining the government's coordination services, linking the annual plans of each Ministry with the budget cycle and integrating impact assessments, reporting cycles and ex-post evaluations of regulations to facilitate a more consistent policy and legislative framework.

Measures have been introduced to simplify of administrative procedures for businesses and citizens and to increase the government's accountability. Reducing red tape for businesses is key for unlocking investment potential given that simplification measures are expected to increase transparency, reduce the operating costs of administrative services, improve service delivery and increase entrepreneurship. Such measures could usefully be extended to services provided to the general public. Initial steps have been taken for a more open and participatory government, including the introduction of procedures to curb favouritism at the top levels of the civil service where Greece continues to score relatively poorly ⁽⁴⁷⁾, thereby supporting the depoliticisation of the public administration. In parallel, the number of political appointees has increased since 2015 reaching close to 60 % ⁽⁴⁸⁾. The government's accountability can be strengthened through the implementation of internal control and audit processes throughout the public administration. Several of these challenges are being addressed in the growth strategy, which includes specific complementary measures to modernise the public administration.

A major reform is underway to establish an integrated human resource management strategy to align Greek practices with international best practices. The most important elements of the reform include the introduction of (i) digital organisational charts and job descriptions (including the streamlining of the existing complex job qualification system (i.e. *'klados*) and linking each jobholder with a specific

position/job description and census/single payment authority); (ii) a mobility scheme; and (iii) performance assessment (including goal setting to be developed). Further efforts are needed to improve the recruitment planning and selection process, although an important step in this direction would be the government's plan for a new law to strengthen the Supreme Council for Civil Personnel Selection (ASEP).

Some progress has been made on digital reforms, but to set up a comprehensive and well-functioning e-government system, early steps will need to be followed up through the development and integration of basic digital tools. These include an interoperability infrastructure, basic registries, common e-authentication for all public services and e-payments to the State. Such reforms will set up a secure interoperability system and improve public service delivery. Finally, Law Cleisthenes I, which was adopted in the summer of 2018, provides for a solid base for reforms of local and regional government. The improvements in allocation of the state funds, the autonomy and local strategic planning, transparency in fiscal planning and improvement of civil participation are all considered to be important steps towards a more self-sustaining regional and local government.

Administrative capacity to manage European Structural and Investment Funds

Greece has been allocated almost EUR 37 billion under various EU funding programmes for the period 2014-2020. Most of these funds originate from the European Structural and Investment Funds (ESIF). To help the country get out of the crisis, the European Commission has also agreed to exceptional measures for Greece, such as an annual payment of additional pre-financing of 3.5 % of total European funds (2015 and 2016) and a higher co-financing rate. For Greece to make use of these funds' full potential and deliver on the needed investments, the funds must be used in the most efficient and effective way. Significant measures have already been taken in this regard in recent years. These included (i) setting up of an electronic platform to manage state aid under all European Structural and Investment Funds programmes; (ii) introducing a simplified payment circuit to ensure payments to beneficiaries are made on time; (iii) adopting a

⁽⁴⁷⁾ Greece scored 2.6 out of 7 on the favouritism sub-component of the Global Competitiveness Index (World Economic Forum, 2017). This scoring places Greece at the bottom quartile of EU-28.

⁽⁴⁸⁾ Staff figures from Apografi.gr shows that the number of political appointees is currently (September 2018) 2495.

unified and simplified legislative framework to streamline the expropriation procedures; (iv) simplifying the procedures and legal codification related to archaeological works; and (v) extending the principles of good public administration also to the structures responsible for managing European Structural and Investment Funds (e.g. selection procedures for managers, performance assessment and the mobility scheme).

Nevertheless, the management of European Structural and Investment Funds projects is still hampered by various inefficiencies and capacity problems, notably for certain groups of beneficiaries (e.g. small municipalities, utilities and other local beneficiaries) are frequently observed. Furthermore, although significant resources are allocated to central administration services (compared to the resources available to managing authorities), there is still a lack of coordination due to overlapping responsibilities and proliferation of structures. To improve the public administration's capacity to manage ESIFs, a more streamlined system needs to be in place for thematic policy coordination and monitoring, including a central coordination mechanism that avoids overlaps and provides further empowerment of the regional managing authorities. Very importantly, tailored technical, legal and organisational support to specific beneficiary groups should be provided, for example through establishing services or units within, or next to existing regional services or even at sub-regional level.

Justice

The overall effectiveness of the Greek justice system has been showing signs of progress, but challenges related to its efficiency and quality remain. Safeguarding its independence will also contribute to encourage an attractive business and investment climate. With longstanding challenges as regards its overall effectiveness, the Greek justice system was in need of a thorough reform at the beginning of the crisis in 2010. Since then, significant reforms have been implemented under the financial assistance programmes. Efforts to improve the overall effectiveness of the justice system focused on: (i) organisational changes to courts; (ii) operational and procedural issues; (iii) speeding up case processing; (iv) enabling and facilitating recourse to alternative dispute

resolution mechanisms; (v) encouraging the adoption of information technology; (vi) revising outdated legislation; and (vii) conducting consolidation and codification projects.

While challenges remain, the justice system has started to become more efficient since the overly fragmented court network has been rationalised. Courts are increasingly able to cope with their workload, as evidenced by shorter disposition times, clearance rates and a reduction of backlogs, particularly in administrative justice. These efforts should continue, so that the above challenges may be increasingly addressed throughout Greece's territory; special attention should be given to producing reliable court statistics based on standardized collection, processing and presentation methods. Reforms targeting these weaknesses are bearing fruit. A reduction in disposition times, improved clearance rates and decreasing backlogs can be seen across the board, particularly in the courts located in Athens which deal with the vast majority of cases, either civil and commercial or administrative (including tax litigation). Productivity of Magistrate courts (responsible, among others, for dealing with household insolvency litigation cases that represent a substantial proportion of the non-performing exposures afflicting the banking system) has also improved, following their reduction to 154 courts from 301 and the appointment of new judicial and clerical personnel. However, disposition time often remains excessively long, backlogs will require further targeted action, and the accumulation of new backlogs needs to be prevented given that litigation levels are on the rise. This will require further scrutinising the judicial map.

Major reforms have been initiated to improve the quality of the justice system, particularly the roll-out of integrated electronic case management systems in courts and judicial statistics. The first phase of the Integrated Civil and Criminal Court Case Management System (OSDDY-PP) in the courts of Athens, Piraeus, Thessaloniki and Chalkida has been completed, and the nation-wide rollout (second phase) is set to follow in 2019, with the aim to be completed by 2021. The availability, quality and reliability of court statistics has improved, although challenges remain, particularly in smaller courts. Centralizing the process and the full use of electronic collection tools could help further. Courts' and lawyers' the

use of information and communication technology by courts and lawyers is still the exception rather than the norm. Experience in other sectors shows that making the electronic submission of documents mandatory could increase efficiency gains and accelerate modernisation. Alternative dispute resolution methods are still being under used and the partial postponement of the implementation of the new framework for mandatory mediation until September 2019 is disappointing. Legal aid in Greece is still facing challenges, as only a fraction of the approved and increased budget for legal aid in 2017 was made available, while access to legal aid is of crucial importance to vulnerable groups.

The independence of the Greek judiciary is a regular topic of public discussion in Greece and as such affects the business and investment climate. While the necessary structural safeguards are in place, the general public's perception of independence has decreased after years of improvement ⁽⁴⁹⁾; conversely, the perception of independence among companies has been improving.

Management of public assets

To improve the management of public assets, in the context of the European Stability Mechanism programme, the Greek authorities have established a new entity, called the Hellenic Corporation of Assets and Participations S.A. (HCAP). This holding gathers under a single institutional structure a significant portfolio of assets and shareholdings in state owned enterprises (SOEs). The overarching objective of the company is to effectively manage these assets, preserve, develop and ultimately maximise their value, and to maximise the quality of the services provided to the Greek people as well as to contribute to reducing the financial obligations of Greece. Since its establishment, a number of key steps have been taken to enable the company to create value in its portfolio. Key achievements of Hellenic Corporation of Assets and Participations so far include: (i) the establishment of the organization and staffing, (ii)

the review and appointment of the boards of direct subsidiaries (TAIPED - the privatisation agency and ETAD - the Public Properties Company), (iii) the initiation of the review and appointment of the boards of the other subsidiaries (SOEs), (iv) the adoption of a Strategic Plan of the Hellenic Corporation of Assets and Participations and its subsidiaries, (v) the submission by the unlisted state owned enterprises of updated business plans in line with the Strategic Plan to Hellenic Corporation of Assets and Participations in April 2018, (vi) the establishment of monitoring systems of the subsidiaries, and (vii) the re-organization of the real estate subsidiary (ETAD), with a view to significantly increase its effectiveness in the management of real estate assets.

The on-going process of privatisation aims at making the economy more efficient and providing financial resources to the State. Greek authorities have committed to a continuation of the implementation of the privatisation programme as reflected in the Asset Development Plan of the privatisation agency (TAIPED). Progress has been observed as regards the privatisation transactions scheduled to be completed by the end of 2018, however the progress for the other transactions due to be completed in 2019 is relatively limited. The finalisation of major privatisation projects – such as the site of the former international airport of Athens, Hellinikon – is expected to lead to important investments in the assets and, in addition, to give an important positive signal to potential future investors.

Fight against corruption

As part of the modernisation of the State, Greece committed under the successive programmes to implement measures to fight corruption. A national anti-corruption strategy was first prepared in 2013 and then updated in 2015 as a national anti-corruption action plan (NACAP). In 2018, a thorough revision of this plan took place. The new national anti-corruption action plan is in force since July 2018 till mid-2021. The implementation of the plan is monitored and coordinated by the General Secretariat for Anti-Corruption (GSAC), established by law in 2015. The authorities plan to implement the outstanding reforms set out in the action plan as

⁽⁴⁹⁾ See Flash Eurobarometer on perceived judicial independence (January 2019). Greece ranks 78/140 (compared to 71/137 previously); see World Economic Forum (2018).

well as of all GRECO's (Group of States against Corruption)⁽⁵⁰⁾ recommendations by mid-2021. Updates of the strategy accompanied by progress reports on the Action Plan are foreseen on a biannual basis. Specific anti-fraud and anti-corruption measures were developed to cover EU co-funded programmes, such as the Anti-Fraud Coordination Service (AFCOS) to handle and follow-up complaints about the misuse of EU funds, and the State Aid Information System (PSKE) to ensure sound management of state aids.

While several anti-corruption reforms were adopted during the programme period, reinforcing these will be critical for achieving lasting improvement. Progress has been made, for example through the major reforms of the asset declaration system and party financing law, which are currently being implemented⁽⁵¹⁾, and is reflected by Greece's improved scoring in the Corruption Perception Index⁽⁵²⁾ (Transparency International, 2018). Whereas Greece scored 36 (out of 100) in 2012, thanks to the various reforms, its score increased to 48 in 2017, although it has slightly dropped in 2018 (46 points). This places Greece in joint 26th position in the EU with the EU average score being 65. Other positive developments were the strengthening of the institutional set-up, the establishment of General Secretariat for Anti-Corruption, an operation centre to coordinate all agencies (ministries, customs authorities, and police) involved in fighting smuggling, and the recent establishment by the Ministry of Finance of a service for investigating tax crimes. However, the setting up of a coordination mechanism for corruption cases is still pending. Moreover, criminal investigations

into allegations of high-level corruption are hampered as a result of a complex immunity regime, notably as regards ministers and former ministers. In addition, ministers and former ministers also benefit from an extensive statute of limitations regime, which in combination with lengthy proceedings, may pose significant problems for prosecuting corruption in Greece. The Parliamentary committee responsible for the ongoing constitutional review took up the provisions concerning the immunity regime for ministers and former ministers (Article 86) and suggested changes that would streamline the immunity to strictly relate to issues of the ministers' specific portfolio, with the aim of bringing the reformed immunity regime in line with the recommendations of Group of States against Corruption (GRECO). However, it still requires that the current Parliament as well as the next Parliament to be formed after this year's national elections to adopt the suggested changes for these to come into effect. Lobbying also remains largely unregulated. Finally, further attention is needed to address a number of legislative gaps, for example relating to whistleblower protection, where a new legal framework is planned to be in place during 2019.

Greece will also need to further develop its administrative capacities to prevent and detect fraud and corruption affecting European Structural and Investment Funds. It should take full advantage of the opportunities provided by available data mining tools such as Arachne. For example, through using it as a risk scoring and detection tool in the award and grant process, to assess potential conflicts of interest and risks of double funding, to identify red flags and increase the effectiveness and efficiency of management verifications. It is noted that currently Greece is using the Commission's risk analysis tool⁽⁵³⁾, which covers the section of fraud prevention and detection.

⁽⁵⁰⁾ Established in 1999 by the Council of Europe to monitor States' compliance with the organisation's anti-corruption standards.

⁽⁵¹⁾ The asset declaration system is currently ongoing a new legal adjustment following the Council of State ruling in December 2017.

⁽⁵²⁾ The Corruption Perception Index is calculated using 13 different data sources from 12 different institutions that capture perceptions of corruption.

⁽⁵³⁾ EGESIF, 14-0021-00 (2014/06/16).

Box 3.4.2: EU funds and programmes contribute to addressing structural challenges and to fostering growth and competitiveness in Greece.

Greece remains a large beneficiary of EU solidarity. The financial allocation from European Structural and Investment Funds (ESI Funds) aimed to support Greece in facing the severe consequences of the financial and economic crisis and address its development challenges amounts to up to EUR 21.4 billion for 2014-20, potentially representing 1.7 % of GDP annually and over 40 % of annual public investment. As per end-2018, some EUR 14.5 billion (around 68 % of the 2014-20 total) had been allocated to specific projects. In addition, EUR 627 million had been allocated to specific projects on strategic transport networks through a dedicated EU funding instrument, the Connecting Europe Facility. Furthermore, numerous Greek research institutions, innovative firms, and individual researchers benefited from other EU funding instruments, notably Horizon 2020 which provided EUR 781 million.

EU funding has helped to address policy challenges identified also in the European Stability Mechanism stability support programme for Greece. By 2018, investments driven by European Structural and Investment Funds had led to the completion and operation of the main TEN-T motorways network of the country of more than 1000 km (motorways Athens –Thessaloniki, Athens-Patra, Ioannina-Patra, Korinthos-Kalamata/Sparta) and the reconstruction and modernisation of the main TEN-T railway line Athens-Thessaloniki of more than 500 km. In addition, European Structural and Investment Funds supported close to 9000 enterprises creating at least 800 full time job equivalent whereas improved water supply was secured for some 32 000 households. By end of 2018, improved energy performance in houses was ensured for 32 000 households. Moreover, European Structural and Investment Funds have supported various actions concerning educational and vocational training, efficient public administration, social inclusion, and sustainable and quality employment. These actions supported more than 410 000 participants, including more than 58 000 young people (18-29 years old) under the Youth Employment Initiative (YEI); 155 000 unemployed and long-term unemployed; and more than 65 000 people from jobless households for their integration into the labour market. About 1600 pupils benefit from renovated schools, and accessibility to better health care services was secured for over 2 million people. Importantly, Greece received, in the context of the special measures adopted in October 2015, a total amount of EUR 2 billion, of which half under the 2007-2013 programming period and the other half as additional advances on the 2014-2020 period. This liquidity has been instrumental in relaunching the implementation of the current programmes and projects.

EU actions strengthen national, regional, and local authorities and the civil society. Close to EUR 600 million have been allocated to strengthening capacity of public administrations at different levels by prompting close cooperation with stakeholders. The "Coal Regions in Transition" initiative seeks to improve socio-economic and technological transformation processes in Western Macedonia, which is the principal coal-mining region of Greece. The "Clean Energy for the islands" and "Circular Economy on the islands" initiatives seek to promote the use of renewables and a more responsible environmental management on islands, which is of eminent importance for tourism in Greece.

Greece ranks 4th when it comes to drawing down funds of the European Fund for Strategic Investments. The overall volume of operations approved by the European Investment Bank with European Fund for Strategic Investments backing amounts to EUR 2.7 billion, which is set to trigger a total of EUR 11 billion in additional private and public investments (February 2019). 20 projects ⁽¹⁾ involving Greece have so far been approved under the infrastructure and innovation window of the European Fund for Strategic Investments. They amount to EUR 2.3 billion in total financing, which should in turn generate EUR 7.4 billion of investments. Under the small SME component, 13 agreements with intermediary banks have been approved for a total of EUR 406 million, which should mobilise around EUR 3.7 billion of total investment. About 22 000 SMEs and mid-cap companies are expected to benefit from this support. The "Viotia wind farm" is a notable example of such project in Greece. The European Investment Bank is providing Terna Energy Group with a EUR 24 million loan to build three new wind farms in Viotia in central Greece. This project will contribute to the EU's low-carbon strategy and create many jobs in the region.

More information at: <https://cohesiondata.ec.europa.eu/countries/EL>

⁽¹⁾ Among which three are multi-country projects.

ANNEX A: OVERVIEW TABLE

Europe 2020 (national targets and progress)	
Employment rate target: 70 % of population aged 20-64	The employment rate for workers aged 20-64 was 57.8 % in 2017, up from 56.2 % since 2016. This rise continued in 2018, with a current 59.3 % employment rate in the second quarter. However, the 70 % target remains out of reach at this stage, in spite of continued job creations. The employment rate is very low and significantly below the EU average (73.2 %).
R&D target: 1.21 % of GDP	Greece has reached in 2017 a R&D intensity of 1.13 % of GDP. In 2017, R&D intensity in Greece was composed of 49% private investment (0.55% of GDP) and 50% public investment (0.57% of GDP). Due to the good progress of the R&D intensity over the years, Greece has planned to set a new target for 2020 of 1.25 % of GDP.
Greenhouse gas (GHG) emissions target: 4 % reduction by 2020 compared to 2005 (in non-ETS sectors)	Greece is expected to over-achieve its 2020 effort sharing decision greenhouse gas emissions target by a significant margin, with a reduction of 22 % by 2020 relative to the 2005 level.
Renewable energy target: 18 % of gross final energy consumption from renewable sources.	The renewable energy share in Greece was 15.2 % in 2016. While being above the 2015/2016 indicative trajectory (11.9 %), further efforts are necessary to reach the 2020 target.
Energy efficiency target: absolute level of primary consumption of 24.7 Mtoe	At 23.55 Mtoe in 2016, Greece is on track to meet its primary energy consumption targets for 2020, but it should make more efforts to keep the primary energy consumption at this level or to minimise its increase when the GDP grows again during the next five year period.
Early school leaving target: 10 % early leavers from education and training aged 18-24.	At 6 % in 2017, the share was well below the EU average of 10.6 % and the national target.
Tertiary education target: 32 % tertiary education attainment, age group 30-34.	At 43.7 % in 2017, Greece is well above the EU average (39.9 %) and the national target. However, the attainment gap between foreign- and native born students (35pps) is biggest in the EU and skills mismatches are pronounced. Women (50.5 %) are consistently outperforming men (37.0 %) in the attainment rate.
Risk of poverty or social exclusion target: 450 thousands less people at risk of poverty or exclusion.	Greece targeted to lift out 450 thousand people from poverty or social exclusion. Greece is far from achieving its target as in 2017 still 655 thousand more lived at risk of poverty than in

	2008.
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ANNEX B: COMMISSION DEBT SUSTAINABILITY ANALYSIS AND FISCAL RISKS

The long-term sustainability of public finances is discussed in the Fiscal Sustainability Report 2018 (European Commission, 2019b) and in the second enhanced surveillance report published in parallel to this country report (European Commission, 2019a).

ANNEX C: STANDARD TABLES

Table C.1: **Financial market indicators**

	2013	2014	2015	2016	2017	2018
Total assets of the banking sector (% of GDP) ¹⁾	225.5	222.7	217.8	199.4	167.3	157.5
Share of assets of the five largest banks (% of total assets)	94.0	94.1	95.2	97.3	97.0	-
Foreign ownership of banking system (% of total assets) ²⁾	3.5	2.9	1.7	2.0	2.1	2.3
Financial soundness indicators: ²⁾						
- non-performing loans (% of total loans)	-	39.7	46.8	46.3	45.0	44.9
- capital adequacy ratio (%)	13.6	14.1	16.5	17.0	17.1	16.4
- return on equity (%) ³⁾	-	-10.6	-24.2	-7.5	-1.3	-2.4
Bank loans to the private sector (year-on-year % change) ¹⁾	-3.3	-3.1	-3.9	-1.5	-1.5	-1.5
Lending for house purchase (year-on-year % change) ¹⁾	-4.3	-3.0	-3.5	-3.5	-3.1	-3.0
Loan to deposit ratio ²⁾	-	79.1	72.3	75.9	83.5	78.4
Central Bank liquidity as % of liabilities ¹⁾	-	18.3	38.2	26.6	16.2	6.0
Private debt (% of GDP)	130.3	129.2	126.7	124.0	116.4	-
Gross external debt (% of GDP) ²⁾ - public	148.4	149.4	149.8	152.9	154.1	154.9
- private	14.5	15.9	14.6	15.0	15.3	15.2
Long-term interest rate spread versus Bund (basis points)*	848.4	576.6	917.1	827.0	566.1	376.1
Credit default swap spreads for sovereign securities (5-year)*	-	-	-	-	-	-

1) Latest data Q3 2018. Includes not only banks but all monetary financial institutions excluding central banks.

2) Latest data Q2 2018.

3) Quarterly values are annualised.

* Measured in basis points.

Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Key Social Scoreboard indicators**

	2013	2014	2015	2016	2017	2018 ⁶
Equal opportunities and access to the labour market						
Early leavers from education and training (% of population aged 18-24)	10.1	9.0	7.9	6.2	6.0	:
Gender employment gap (pps)	19.4	18.3	18.0	19.0	19.7	20.8
Income inequality, measured as quintile share ratio (S80/S20)	6.6	6.5	6.5	6.6	6.1	:
At-risk-of-poverty or social exclusion rate ¹ (AROPE)	35.7	36.0	35.7	35.6	34.8	:
Young people neither in employment nor in education and training (% of population aged 15-24)	20.4	19.1	17.2	15.8	15.3	:
Dynamic labour markets and fair working conditions[†]						
Employment rate (20-64 years)	52.9	53.3	54.9	56.2	57.8	59.4
Unemployment rate ² (15-74 years)	27.5	26.5	24.9	23.6	21.5	19.6
Long-term unemployment rate ³ (as % of active population)	18.5	19.5	18.2	17.0	15.6	13.8
Gross disposable income of households in real terms per capita ⁴ (Index 2008=100)	68.8	70.4	69.6	68.8	69.3	:
Annual net earnings of a full-time single worker without children earning an average wage (levels in PPS, three-year average)	18029	18169	18447	18577	:	:
Annual net earnings of a full-time single worker without children earning an average wage (percentage change, real terms, three-year average)	-7.0	-3.1	-1.1	0.0	:	:
Public support / Social protection and inclusion						
Impact of social transfers (excluding pensions) on poverty reduction ⁵	17.5	15.0	16.1	15.9	15.8	:
Children aged less than 3 years in formal childcare	14.0	12.8	11.4	8.9	20.5	:
Self-reported unmet need for medical care	9.0	10.9	12.3	13.1	10.0	:
Individuals who have basic or above basic overall digital skills (% of population aged 16-74)	:	:	44.0	46.0	46.0	:

1 People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).

2 Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.

3 Long-term unemployed are people who have been unemployed for at least 12 months.

4 Gross disposable household income is defined in unadjusted terms, according to the draft Joint Employment Report 2019.

5 Reduction in percentage of the risk of poverty rate, due to social transfers (calculated comparing at-risk-of poverty rates before social transfers with those after transfers; pensions are not considered as social transfers in the calculation).

6 Average of first three quarters of 2018 for the employment rate, long-term unemployment rate and gender employment gap. Data for unemployment rate is seasonally adjusted (annual series, for EE, EL, HU, IT and UK data based on first three quarters of 2018).

Source: Eurostat

Table C.3: Labour market and education indicators

Labour market indicators	2013	2014	2015	2016	2017	2018 ⁴
Activity rate (15-64)	67.5	67.4	67.8	68.2	68.3	:
Employment in current job by duration						
From 0 to 11 months	8.0	9.9	10.1	9.5	9.9	:
From 12 to 23 months	5.1	6.1	6.9	7.1	7.2	:
From 24 to 59 months	12.4	11.9	11.2	12.5	12.8	:
60 months or over	74.5	72.1	71.9	70.9	70.1	:
Employment growth*						
(% change from previous year)	-2.6	0.9	0.7	0.5	1.5	1.5
Employment rate of women						
(% of female population aged 20-64)	43.3	44.3	46.0	46.8	48.0	49.1
Employment rate of men						
(% of male population aged 20-64)	62.7	62.6	64.0	65.8	67.7	69.9
Employment rate of older workers*						
(% of population aged 55-64)	35.6	34.0	34.3	36.3	38.3	40.7
Part-time employment*						
(% of total employment, aged 15-64)	8.4	9.3	9.4	9.8	9.7	9.1
Fixed-term employment*						
(% of employees with a fixed term contract, aged 15-64)	10.2	11.6	11.9	11.2	11.4	11.5
Participation in activation labour market policies (per 100 persons wanting to work)	6.7	8.6	7.0	3.1	:	:
Transition rate from temporary to permanent employment (3-year average)	18.3	17.9	17.7	21.5	20.0	:
Youth unemployment rate						
(% active population aged 15-24)	58.3	52.4	49.8	47.3	43.6	40.1
Gender gap in part-time employment	7.2	6.5	6.4	6.8	7.5	7.1
Gender pay gap ¹ (in undadjusted form)	:	12.5	:	:	:	:
Education and training indicators	2013	2014	2015	2016	2017	2018
Adult participation in learning (% of people aged 25-64 participating in education and training)	3.2	3.2	3.3	4.0	4.5	:
Underachievement in education ²	:	:	35.8	:	:	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	34.9	37.2	40.4	42.7	43.7	:
Variation in performance explained by students' socio-economic status ³	:	:	12.5	:	:	:

* Non-scoreboard indicator

1 Difference between the average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. It is defined as "unadjusted", as it does not correct for the distribution of individual characteristics (and thus gives an overall picture of gender inequalities in terms of pay). All employees working in firms with ten or more employees, without restrictions for age and hours worked, are included.

2 PISA (OECD) results for low achievement in mathematics for 15 year-olds.

3 Impact of socio-economic and cultural status on PISA (OECD) scores. Values for 2012 and 2015 refer respectively to mathematics and science.

4 Average of first three quarters of 2018. Data for youth unemployment rate is seasonally adjusted (annual series, for EE, EL, HU, IT and UK data based on first three quarters of 2018).

Source: Eurostat, OECD

Table C.4: Social inclusion and health indicators

	2012	2013	2014	2015	2016	2017
Expenditure on social protection benefits* (% of GDP)						
<i>Sickness/healthcare</i>	6.0	5.4	4.7	4.9	5.4	:
<i>Disability</i>	1.8	1.6	1.6	1.7	1.5	:
<i>Old age and survivors</i>	17.3	16.2	16.7	17.0	17.1	:
<i>Family/children</i>	1.0	1.1	1.1	1.1	1.0	:
<i>Unemployment</i>	1.4	1.3	1.1	1.0	1.0	:
<i>Housing</i>	0.0	0.0	0.0	0.0	0.0	:
<i>Social exclusion n.e.c.</i>	0.1	0.1	0.3	0.1	0.2	:
Total	27.5	25.8	25.5	25.9	26.2	:
<i>of which: means-tested benefits</i>	0.9	1.2	1.5	1.4	1.3	:
General government expenditure by function (% of GDP, COFOG)						
<i>Social protection</i>	20.8	19.4	20.1	20.3	20.7	:
<i>Health</i>	5.8	5.2	4.7	4.7	4.9	:
<i>Education</i>	4.5	4.6	4.3	4.3	4.3	:
Out-of-pocket expenditure on healthcare (% of total health expenditure)	30.1	33.7	36.6	36.2	34.3	:
Children at risk of poverty or social exclusion (% of people aged 0-17)*	35.4	38.1	36.7	37.8	37.5	36.2
At-risk-of-poverty rate ¹ (% of total population)	23.1	23.1	22.1	21.4	21.2	20.2
In-work at-risk-of-poverty rate (% of persons employed)	15.1	13.1	13.4	13.4	14.1	12.9
Severe material deprivation rate ² (% of total population)	19.5	20.3	21.5	22.2	22.4	21.1
Severe housing deprivation rate ³ , by tenure status						
<i>Owner, with mortgage or loan</i>	3.6	3.7	3.4	4.9	5.5	4.8
<i>Tenant, rent at market price</i>	9.9	9.9	8.0	8.8	8.2	8.0
Proportion of people living in low work intensity households ⁴ (% of people aged 0-59)	14.2	18.2	17.2	16.8	17.2	15.6
Poverty thresholds, expressed in national currency at constant prices*	4859	4232	3916	3889	3921	3973
Healthy life years (at the age of 65)						
<i>Females</i>	7.3	6.8	7.1	7.5	7.8	:
<i>Males</i>	8.6	8.0	7.7	7.9	8.0	:
Aggregate replacement ratio for pensions ⁵ (at the age of 65)	0.5	0.6	0.6	0.6	0.6	0.6
Connectivity dimension of the Digital Economy and Society Index (DESI) ⁶	:	:	35.0	42.9	44.9	48.0
GINI coefficient before taxes and transfers*	55.4	57.3	57.2	56.6	57.0	53.8
GINI coefficient after taxes and transfers*	33.7	34.4	34.5	34.2	34.3	33.4

* Non-scoreboard indicator

1 At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.

2 Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.

3 Percentage of total population living in overcrowded dwellings and exhibiting housing deprivation.

4 People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.

5 Ratio of the median individual gross pensions of people aged 65-74 relative to the median individual gross earnings of people aged 50-59.

6 Fixed broadband take up (33%), mobile broadband take up (22%), speed (33%) and affordability (11%), from the Digital Scoreboard.

Source: Eurostat, OECD

Table C.5: Product market performance and policy indicators

Performance indicators	2012	2013	2014	2015	2016	2017
Labour productivity per person ¹ growth (t/t-1) in %						
Labour productivity growth in industry	2.04	5.12	-1.60	-3.76	4.48	0.78
Labour productivity growth in construction	9.90	-16.80	-14.13	-0.25	22.81	-1.10
Labour productivity growth in market services	-1.47	1.13	-0.60	-2.53	-3.76	0.16
Unit Labour Cost (ULC) index ² growth (t/t-1) in %						
ULC growth in industry	-11.09	-8.07	4.01	1.61	-4.05	-1.77
ULC growth in construction	-22.06	5.83	-5.59	-12.46	-17.12	-7.55
ULC growth in market services	-3.74	-10.21	-2.89	-2.49	3.14	3.29
Business environment	2012	2013	2014	2015	2016	2017
Time needed to enforce contracts ³ (days)	1140	1300	1580	1580	1580	1580
Time needed to start a business ³ (days)	11.0	14.0	13.0	13.0	13.0	12.5
Outcome of applications by SMEs for bank loans ⁴	1.59	1.54	1.81	1.21	1.54	1.14
Research and innovation	2012	2013	2014	2015	2016	2017
R&D intensity	0.70	0.81	0.83	0.96	0.99	1.13
General government expenditure on education as % of GDP	4.50	4.60	4.30	4.30	4.30	:
Employed people with tertiary education and/or people employed in science and technology as % of total employment	33	34	33	34	36	37
Population having completed tertiary education ⁵	23	24	25	25	26	27
Young people with upper secondary education ⁶	86	87	88	90	91	92
Trade balance of high technology products as % of GDP	-1.40	-1.24	-1.18	-1.30	-1.22	-1.36
Product and service markets and competition				2003	2008	2013
OECD product market regulation (PMR) ⁷ , overall				2.51	2.21	1.74
OECD PMR ⁷ , retail				4.50	3.85	2.55
OECD PMR ⁷ , professional services				3.30	3.26	3.01
OECD PMR ⁷ , network industries ⁸				4.29	3.13	2.55

1 Value added in constant prices divided by the number of persons employed.

2 Compensation of employees in current prices divided by value added in constant prices.

3 The methodologies, including the assumptions, for this indicator are shown in detail here:

<http://www.doingbusiness.org/methodology>.

4 Average of the answer to question Q7B_a. "[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received 75% and above, two if received below 75%, three if refused or rejected and treated as missing values if the application is still pending or don't know.

5 Percentage population aged 15-64 having completed tertiary education.

6 Percentage population aged 20-24 having attained at least upper secondary education.

7 Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: <http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm>

8 Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).

Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.6: **Green growth**

Green growth performance		2012	2013	2014	2015	2016	2017
Macroeconomic							
Energy intensity	kgoe / €	0.14	0.13	0.13	0.13	0.13	0.1
Carbon intensity	kg / €	0.59	0.56	0.53	0.52	0.50	-
Resource intensity (reciprocal of resource productivity)	kg / €	0.76	0.73	0.75	0.70	0.70	0.69
Waste intensity	kg / €	0.38	-	0.38	-	-	-
Energy balance of trade	% GDP	-4.0	-3.7	-3.4	-2.1	-1.6	-1.8
Weighting of energy in HICP	%	7.73	9.55	11.96	8.45	6.66	7.75
Difference between energy price change and inflation	%	18.8	16.2	0.1	-10.5	-5.3	6.9
Real unit of energy cost	% of value added	12.9	13.1	13.2	13.7	14.2	-
Ratio of environmental taxes to labour taxes	ratio	0.21	0.25	0.26	0.26	0.25	-
Environmental taxes	% GDP	3.3	3.7	3.7	3.8	3.8	4.0
Sectoral							
Industry energy intensity	kgoe / €	0.11	0.11	0.13	0.14	0.13	0.12
Real unit energy cost for manufacturing industry excl. refining	% of value added	9.4	9.2	9.7	9.8	9.9	-
Share of energy-intensive industries in the economy	% GDP	5.7	5.6	5.4	5.2	5.5	5.8
Electricity prices for medium-sized industrial users	€ / kWh	0.12	0.12	0.13	0.12	0.11	0.11
Gas prices for medium-sized industrial users	€ / kWh	0.06	0.05	0.05	0.04	0.03	0.03
Public R&D for energy	% GDP	0.02	0.01	0.01	0.01	0.01	0.03
Public R&D for environmental protection	% GDP	0.01	0.01	0.01	0.02	0.01	0.03
Municipal waste recycling rate	%	17.0	15.8	15.4	15.8	17.2	18.9
Share of GHG emissions covered by ETS*	%	56.8	56.2	54.9	52.5	50.8	-
Transport energy intensity	kgoe / €	0.52	0.58	0.58	0.64	0.70	0.7
Transport carbon intensity	kg / €	1.39	1.52	1.49	1.65	1.81	-
Security of energy supply							
Energy import dependency	%	65.8	61.7	65.4	71.0	72.9	71.1
Aggregated supplier concentration index	HHI	29.5	32.1	37.2	33.6	40.3	-
Diversification of energy mix	HHI	0.34	0.32	0.33	0.33	0.34	0.3

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2010 prices)

Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)

Carbon intensity: greenhouse gas emissions (in kg CO₂ equivalents) divided by GDP (in EUR)

Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)

Waste intensity: waste (in kg) divided by GDP (in EUR)

Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP

Weighting of energy in HICP: the proportion of 'energy' items in the consumption basket used for the construction of the HICP

Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)

Real unit energy cost: real energy costs as % of total value added for the economy

Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2010 EUR)

Real unit energy costs for manufacturing industry excluding refining: real costs as % of value added for manufacturing sectors

Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP

Electricity and gas prices for medium-sized industrial users: consumption band 500–20 000 MWh and 10 000–100 000 GJ; figures excl. VAT.

Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste

Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP

Proportion of GHG emissions covered by EU emissions trading system (ETS) (excluding aviation): based on GHG emissions (excl. land use, land use change and forestry) as reported by Member States to the European Environment Agency.

Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2010 EUR)

Transport carbon intensity: GHG emissions in transport activity divided by gross value added of the transport industry

Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels

Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.

Diversification of the energy mix: Herfindahl index covering natural gas, total petrol products, nuclear heat, renewable energies and solid fuels

* European Commission and European Environment Agency

Source: European Commission and European Environment Agency (Share of GHG emissions covered by ETS); European Commission (Environmental taxes over labour taxes); Eurostat (all other indicators)

ANNEX D: INVESTMENT GUIDANCE ON COHESION POLICY FUNDING 2021-2027 FOR GREECE

Building on the Commission's proposal for the next Multi-Annual Financial Framework for the period 2021-2027 of 2 May 2018 (COM (2018) 321), this Annex D presents the preliminary Commission services' views on priority investment areas and framework conditions for effective delivery of the 2021-2027 Cohesion Policy.⁽⁵⁴⁾ These priority investment areas are derived from the broader context of investment bottlenecks, investment needs and regional disparities assessed in the report. It provides the basis for a dialogue between Greece and the Commission services in view of the programming of the Cohesion policy funds (European Regional Development Fund, Cohesion Fund and European Social Fund Plus) in Greece.

Policy Objective 1: A Smarter Europe – Innovative and smart industrial transformation
The Greek economy is characterised by very low public and private investments in innovation and a low ranking in the Global Competitiveness Index (last of the EU28). Specifically in relation to small and medium sized enterprises innovators, performance has fallen since the start of the crisis. In order to strengthen innovation performance and foster productivity growth, smart specialisation areas are identified based on national and regional needs and potential. High priority investment needs⁽⁵⁵⁾ are identified to enhance research and innovation capacities and the uptake of advanced technologies, in particular: • promote business investment in research and development and foster collaboration between public and private research on targeted smart specialisation areas; • facilitate business technology transfer, networking, clusters and open innovation; • support activities that allow innovations to reach the market, especially for start-ups and small and medium sized enterprises in the digital market; • develop skills related to smart specialisation areas, in particular reskilling and digital skills.
Greece ranks very low in the uptake of information technologies and is last of the EU28 on the e-government scoreboard. High priority investment needs are identified to close the gap with respect to the Digital Agenda for Europe, to reap the benefits of digitalisation for citizens, businesses and the public sector, in particular: • support the increase of information and communication technology uptake in small and medium sized enterprises (business to business, business to consumer, consumer to consumer), including supporting infrastructures and services; • expand and complete the range of e-service provision (e-government, e-procurement, e-inclusion, e-health, e-learning, e-skilling, e-commerce) and their uptake by citizens, businesses and the public sector.
Access to finance for small and medium sized enterprises remains a very problematic area and framework conditions for entrepreneurship, innovation, and start-ups are unfavourable. Credit conditions tightened significantly during the financial crisis and remain very restrictive compared to other EU countries. High priority investment needs are identified to enhance the growth and competitiveness of small and medium sized enterprises, in particular: • foster growth of start-ups / scale-ups and accelerators, and develop integrated business advisory services; • promote entrepreneurship and support for new business models; • encourage industrial cluster development and enhanced cooperation between small and medium sized enterprises and universities/research centres.

⁽⁵⁴⁾ This Annex is to be considered in conjunction with the requirements for thematic concentration and urban earmarking, as outlined in the EC Proposal for a Regulation of the European Parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund COM(2018) 372 and in the EC Proposal for a Regulation of the European Parliament and of the Council on the European Social Fund Plus COM(2018) 382.

⁽⁵⁵⁾ The intensity of needs is classified in three categories in a descending order – high priority needs, priority needs, needs.

Policy Objective 2: A low carbon and greener Europe – Clean and fair energy transition, Green and blue investment, circular economy, climate adaptation and risk prevention
The building stock in Greece is mostly aged, with many public, residential and commercial buildings constructed prior to 1980, with no or very low levels of thermal protection. High priority investment needs are identified to promote energy efficiency measures, in particular: • enhance the energy efficiency of public buildings, private/residential buildings and small and medium sized enterprises premises and installations.
Greece still relies considerably on fossil fuels and large opportunities for renewable power generation notably from wind and solar sources remain unexploited. High priority investment needs are identified to promote renewable energies, also in the context of the “Clean Energy for EU islands” initiative, the “Coal Regions in transition” initiative and the blue growth pillar of “EU Strategy for the Adriatic and Ionian Region”, in particular: • district heating and cooling based on renewable energy sources; small-scale renewable energy sources installations for buildings/premises where connection to a district heating network is not possible; • small-scale electricity generation based on renewable energy sources, e.g. by renewable energy sources self-consumers and energy communities based on renewable energy sources, notably in non-connected insular and rural areas; • smart grids and smart storage systems related to renewable energy sources; • increasing islands’ electricity interconnections to phase out costly and polluting local fossil fuel based generation and to allow for more and optimised generation and use of electricity from renewable energy sources.⁽⁵⁶⁾
Greece relies heavily on landfilling of solid waste, and lags behind in recovery/recycling and the circular economy. Many smaller municipalities are still deprived of proper wastewater management and/or a reliable provision of drinking water. High priority investment needs are identified to promote sustainable water management, and to improve resource efficiency and waste management, also in the context of the blue growth pillar of “EU Strategy for the Adriatic and Ionian Region”, in particular: • support waste water infrastructures for agglomerations with 2,000 to 15,000 population equivalent; ensure sustainable sludge management; • modernise water supply networks, improve leakage control and promote water savings actions; support small-scale water supply projects in areas with structural or seasonal shortages; • support waste prevention and recycling, reuse centres, composting plants; modernise or upgrade existing sorting and recycling facilities; support solid waste transfer stations where necessary for sorting and recycling; • promote measures to facilitate the transition to a circular economy; • develop targeted actions to provide assistance to small municipalities and utilities to improve their technical, managerial and organisational capacities for the implementation of the above investments, following the technical assistance model for the wastewater sector implemented in 2014-2020; • support conservation/protection actions in approved protected nature areas with adopted conservation plans and established management bodies.
Greece faces multiple natural and environmental risks, in particular floods and wildfires. Investment needs are identified to promote risk prevention and disaster resilience, in particular: • sectoral mapping of hazards and risk analysis (notably for floods and wildfires), preparation and implementation of disaster risk management strategies, where appropriate in a cross border context

⁽⁵⁶⁾ While outside of the scope of the ERDF and the Cohesion Fund (art. 6.1(h), COM (2018) 372), energy interconnectors could be financed by the Connecting Europe Facility in line with its objectives (art. 3, paragraphs 1 and 2 (b), COM (2018) 438).

(e.g. the Evros river basin); • flood protection and prevention infrastructures; land, forest and river basin management measures, where appropriate in a cross border cooperation context.
Policy Objective 3: A more connected Europe by enhancing mobility and regional information and communication technologies
Major railways infrastructures in Greece remain uncompleted, which hampers the multimodality of the transport system. Many connections of the seaports system, especially where it concerns islands, as well as connections to airport facilities in northern Greece and major tourist destinations, remain poor and unreliable. High priority investment needs are identified to develop sustainable, climate resilient, intelligent and intermodal transport systems, in particular: • modernise the existing rail network and interconnections of domestic and international transport links in Northern Greece which are economically justified and financially viable; • support the redesign of the coastal shipping network to create regional nodes that improve the accessibility of islands, decongest the port of Piraeus, reduce costs and increase service quality and efficiency of the coastal shipping system; • promote freight transport multi-modality by improving rail connections to Trans-European Transport Network ports such as Thessalonica, logistics platforms, and industrial zones such as Oinofyta.
Thessalonica and the mid-sized urban centres lack sustainable and integrated urban mobility systems, which favours continued dependence on individual transport modes. High priority investment needs are identified to promote sustainable multimodal urban mobility, in particular: • support sustainable urban mobility in Thessalonica and the principal peripheral urban centres (Patras, Heraklion, Larissa, Ioannina, Agrinion and Chalkis), based on sustainable urban mobility plans.
Missing links in the motorway and primary road network continue to inhibit accessibility and the optimal use of highways, seaports and airports in Greece. High priority investment needs are identified to develop sustainable, climate resilient, intelligent and intermodal Trans-European Transport Networks, in particular: • construction of the Northern Crete Trans-European Transport Network core motorway axis, along with its multimodal connections to the main network nodes, sea ports and airports; • consolidate the regional primary east-west road axes in Epirus and Thessaly (Igoumenitsa – Volos) and Continental Greece (Karpenisi – Kymi), to capitalise on the newly constructed north-south motorways; • support the multimodal development of transport in Western Greece and Epirus linked to the recently completed Ionia Odos and Egnatia Odos motorways, where such links are economically justified and financially viable.
Greece's transition to fast broadband is slow and coverage of households with next generation access remains low compared to the EU average; ultra-fast speeds for households and small and medium sized enterprises are virtually inexistent. High priority investment needs are identified to support the country's digital transformation and enhance its digital connectivity, in particular to: • complete investments in future-proof broadband infrastructure to meet the EU2025 strategic objectives with download speeds of at least 100 Mbps upgradable to 1 Gbps for households and all main socio-economic drivers (businesses, transport/logistics hubs, universities, research centres, schools, hospitals, public services).
Policy Objective 4: A more social Europe – Implementing the European Pillar of Social Rights
Greece has high unemployment, including youth and long-term, large numbers of persons not in education, employment or training, and low women employment rate. High priority investment needs are therefore identified to improve access to employment of all jobseekers, in particular youth and

long-term unemployed, promote self-employment and the social economy, continue modernising labour market institutions and services to assess and anticipate skills needs as well as promote women's labour market participation, and in particular to:

- support active and preventive labour market measures that are open to all;
- identify individual needs and provide personalised services and targeted and tailored training;
- strengthen capacity and support structures for the promotion of social enterprises;
- further improve the capacity of public employment services for better provision of services;
- develop and implement comprehensive skills strategies including digital skills, with the involvement of social partners and other relevant actors;
- develop work-life balance policies and promote innovative work organisation.

Education and training systems respond insufficiently to labour market needs, foreign-born students' underperform and adult participation in learning remains low. **Priority investment needs are therefore identified to improve the quality, effectiveness and labour market relevance of education and training, support acquisition of key competences including digital skills; promote equal access to, and completion of, quality and inclusive education and training; promote lifelong learning, flexible upskilling and reskilling opportunities for all, and in particular to:**

- increase the relevance of education for labour market needs; develop high quality educational content and competences of educators; promote vocational education and training as a quality and skilled career pathway also to support urban regeneration strategies;
- develop comprehensive life-long learning strategies and upgrade basic skills of the adult population;
- enhance partnerships between stakeholders and social partners, and guidance services to build flexible pathways between sectors of education, training and work, based on labour market needs;
- enhance access to inclusive quality education and training, in particular for persons with disabilities, migrants and refugees;
- develop infrastructure and equipment for early childhood education and care, primary and secondary school and vocational educational training facilities.

Income inequality and risk of poverty or social exclusion are high and the effectiveness of social transfers' impact is poor, while unmet needs for medical care remain a challenge. **High priority investment needs are therefore identified to foster active inclusion; promote socio-economic integration of people at risk of poverty or social exclusion, including the most deprived and children, marginalised communities and third country nationals; enhance access to affordable and effective services and social protection; improve effectiveness and resilience of healthcare systems and long-term care services, and in particular to:**

- enhance access to, and inclusiveness of affordable, sustainable and high-quality social services;
- promote measures to overcome prejudice and discrimination against third-country nationals;
- fight early school-leaving for marginalised communities and ensure successful transition from school to employment for all;
- support the most deprived; promote the social integration of children at risk of poverty, persons with disabilities, migrants and refugees;
- develop measures tackling in-work poverty;
- tackle educational and housing segregation, including infrastructures such as social housing, extension of mainstream schools and school bus systems; develop family and community based care services, including primary care facilities for homeless or women experiencing domestic violence, family and community centres and counselling services;
- increase equal access to eHealth services to promote e-inclusion, notably for vulnerable groups; address shortages and skills gap in health and long-term care sectors through re-skilling and upskilling of the workforce;
- invest in the primary health care systems (local primary health care units and similar), in information and communication technologies for health purposes that emerge from the business plan on health, tele-medicine, and interoperability of related systems; develop day-care centres for the people with

disability (children, adults and the elderly).
Policy Objective 5: A Europe closer to citizens by fostering the sustainable and integrated development of urban, rural and coastal areas and local initiatives
The morphological characteristics of Greece and its territorial disparities call for regional and local policies with a strong territorial dimension. High priority investment needs are identified to foster the integrated social, economic, cultural and environmental development of the most vulnerable territories, especially small remote islands, mountainous zones, and deprived urban areas that suffer from persistent structural weaknesses, also in the context of the “Coal Regions in transition” initiative (which may also affect the other policy objectives), the “Clean Energy for EU islands” and the “Circular economy on islands” initiatives, and the blue growth pillar of “EU Strategy for the Adriatic and Ionian Region”, in particular: In urban areas: • sustainable regeneration of disadvantaged and/or de-industrialised zones/areas in the Athens-Piraeus and Thessaloniki conurbations and in the principal peripheral urban centres, including through support to small and medium sized enterprises; • promotion of culture and cultural heritage and the social economy in the context of integrated development plans for deprived neighbourhoods, including through support to small and medium sized enterprises; • enhance the planning, programming and implementation capacity to develop high-quality large-scale investment projects. On small remote islands: • small-scale ports infrastructures to improve connectivity with neighbouring bigger islands and/or the mainland; • small-scale wastewater treatment, water reuse and water production infrastructures; • small-scale local transport based on renewable energy sources. On small remote islands and in mountainous areas: • integrated local renewable energy systems covering production, distribution and consumption using smart grids and smart energy storage facilities; • broadband connectivity, where applicable through deeply embedded “very high capacity network” architectures; • information and communication technology applications for e-education, e-commerce, e-health and e-government services; • promotion of the cultural and natural heritage and of local products, in the context of sustainable alternative tourism development strategies; • develop targeted actions to provide assistance to small municipalities and utilities and improve their technical, managerial and organisational capacities for the implementation of the above investments, following the technical assistance model for the wastewater sector implemented in 2014-2020. Factors for effective delivery of cohesion policy • review the appropriateness of ESIF executive units in line Ministries and their contribution in the

current programming period and if necessary revisit their number, role and legislative context to ensure a homogenous and streamlined approach in the programming and implementation of cohesion policy funds;

- a clear division of responsibilities in the programming, management and implementation cycle of the cohesion policy funds, including a streamlined and simple mechanism for cross-programme thematic policy coordination and monitoring, taking into account actions undertaken under consecutive economic adjustment programmes, experiences from Greece's participation in the administrative capacity building pilot action, and the results of the OECD study on regional policy for Greece post-2020; a central coordination mechanism that is simple, avoids overlap and acts fast;
- empowering regional managing authorities and enhancing their managerial independence;
- efficient and effective measures to prevent and address conflict of interest, fraud and corruption; in this context complete and solidify the actions undertaken under consecutive economic adjustment programmes, including the staff selection, evaluation and mobility schemes; the electronic platforms for the management of state aids and public procurement; and the integration of the General Secretariat for Anti-Corruption in the Cohesion Funds' management system;
- improved public procurement performance by tackling the weaknesses identified in the Single Market Scoreboard and paying specific attention to the issues of excessively low bids and single bidding;
- broader use of financial instruments and/or contributions to a Greek compartment under InvestEU for revenue-generating and cost-saving activities;
- foster adequate participation and strengthened capacity of social partners, civil society and other relevant stakeholders in the delivery of policy objectives.

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