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Editorial Policy

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The **Foundation for Economic and Industrial Research (IOBE)** is a private, non-profit, public benefit research organisation. Its purpose is to promote research on current problems and prospects of the Greek Economy and its sectors and to generate reliable information, analysis and proposals for action that can be of value to policy makers

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FOREWORD

This is the third IOBE bulletin on the Greek economy for 2017. Its publication takes place at a time when the domestic economic environment has improved upon the completion of the second review of the third economic adjustment programme. However, developments on important matters, such as banking system issues (non-performing loans, stress test) and the third review of the programme, are about to take place shortly. As every IOBE quarterly bulletin, this report includes **four chapters** and an **appendix** with key structural indicators. The bulletin starts with an analysis of the growth prospects of the Greek economy. The rest of the report is structured as follows:

The **first chapter** presents a **brief overview** of the report. **Chapter two** examines the general economic conditions, including a) an analysis of the **global economic environment** in the first half of 2017 and its outlook for the rest of the year and for 2018, based on the latest reports of the International Monetary Fund and the European Commission; b) an outline of the **economic climate** in Greece in the third quarter of 2017, based on data from the latest IOBE business surveys; c) an analysis of the execution of the **State Budget** in the first eight months of 2017 and an assessment of the 2018 Draft State Budget.

Chapter three focuses on the performance of the Greek economy in the first half of 2017. It includes an analysis of: the **macroeconomic environment** during that period and its projected trends for the rest of the year; the **developments in key production sectors** in the first half of 2017; the **export performance** of the Greek economy; the developments in the **labour market** during the same period; the trends in **inflation** in the first eight months of the year; and, finally, the trends in the **balance of payments** between January and July of 2017.

Chapter four presents the findings of a study on the impact of the crisis on the domestic tertiary education system and the challenges for its future.

The report is based on data that were available up to 11/10/2017. IOBE's next quarterly bulletin on the Greek economy will be published in mid-January 2018.

THE PROSPECTS FOR GROWTH

The Greek economy is expected to grow in the current year at a rate slightly lower than 1.5% in real terms. Therefore, for the first time in 9 years, the growth of the economy is going to be notable, rather than marginal, which is certainly a positive development. Of course, the fact that the economy starts from a very low base, either considering the two previous years of stagnation, or taking into account the accumulated recession from the start of the crisis, is one possible reason for this course of events. The external environment is also highly favourable, as the regional geopolitical conditions have strengthened the incoming tourism, while more broadly, high growth rates are recorded in Europe and beyond, the cost of capital is remarkably low and energy prices are also relatively low. The favourable external environment has contributed positively and decisively as well. The structural changes in the economy since the beginning of the crisis, and particularly those in the labour market, also have a positive effect, albeit with a delay. In addition, compared with the recent past, the political risk is relatively low, given that there is no political entity with realistic prospects to win elections with the aim to overthrow the programme and take the country out of the monetary union. Meanwhile, the breakaway forces are not strengthening in the political environment of Europe as well.

The exports of both goods and services have a relatively significant contribution to GDP growth in the current year. This happens firstly because of a favourable international environment, but also due to improvement of Greece's structural competitiveness. For one more year, however, the contribution of investments is weak, as it primarily concerns changes in stocks rather than investments in fixed assets. Taking into account the relevant factors, growth is expected to strengthen to about 2% or possibly slightly more in 2018. A further expansion of exports is expected to serve as a major growth driver. Investment and household consumption, driven mainly by a decline of unemployment, follow in terms of their contribution to the expected GDP growth. Whether the growth in investment and, secondarily, in consumption leads to higher imports constitutes a critical risk factor. It is worth noting that the recorded inflation of around 1%, significant both in the current and the following year, can reduce overall competitiveness, yet it makes the servicing of nominal debt easier, compared with a deflation regime.

While the recording of positive growth rates is welcome, their low level, even under the currently favourable conditions, is equally alarming. It is significant that in the past two years the economy was in stagnation and the growth rate for the current year is approximately half of what was initially set as an economic policy goal through the budget and the economic adjustment programme. Furthermore, the growth rate in the country lags behind that of its European partners, with the economic divergence expanding rather than shrinking, which is particularly important. In the same line of thought, it is doubtful whether the structure of the economy has changed sufficiently to justify optimism for high growth over the medium term, given that access to funding will remain limited. Overall, the growth recorded in the current period marks the exit from the crisis and the start of a virtuous cycle only under certain conditions.

In recent months, the economy has begun to recover gradually after the traumatic events of the summer of 2015. As the implementation of the programme progresses, the uncertainty eases and the economy broadly returns to the circumstances of 2014. The essential question is, of course, if the foundations are laid for faster growth rates than the EU average in the medium term, but also compared with those recorded in the Greek economy in the years before the crisis. It will be difficult to overcome the crisis if the conditions that led to it are not eliminated and, certainly, it will not be overcome if these conditions grow stronger.

We must not lose the perspective that since the 1980s the nominal growth rates in the country have only slightly exceeded the inflation rate. In real terms, the economy was losing ground consistently in the European context and Greece gradually became one of the poorest countries in the EU. An exception to this trend was observed around the entry-period to the single currency, when the decrease in borrowing costs and the prospects of long-term stability led to an increase in productive investment. In particular, in terms of purchasing power and real GDP per capita, Greece fell from 14^{th} among the 28 countries in the EU in 1980, to 24^{th} in 2016. The aim of economic policy should be to strengthen the economic growth prospects over the medium term and in all sectors – its successes or failures should be assessed in this light.

Since the onset of the crisis, emphasis has been placed on public finances, as not creating new deficits has been set as the main priority. In this regard, and despite the problems, the 2017 budget is on a path of achieving the targets of the third programme, primarily through expenditure restraint. Ordinary budget revenue lags behind, as tax receipts fall short of the target, despite the additionally taken measures. This is offset by limiting primary spending (although the inflexible spending should be covered over the rest of the year) and under-execution of the Public Investment Programme. For 2018, the primary surplus target is set at 3.5%, with the higher surplus planned to be achieved mainly through the social security system, both on the expenditure (pensions) and the revenue (contributions) side.

While fiscal problems do not seem to arise in the current year, the targets set for next year are ambitious. In particular, the high tax rates and the burden from the social security system, acting in effect as taxation as well, squeeze incomes and the tax base, which is not fully taken into account. In this regard, the serious impact on the functioning of the economy from the excessive burden on the entities that are fully compliant with employment and business norms, compared with those who violate them or operate on the limits of the system has also been ignored. The Greek economy cannot rise from its deep crisis without addressing its underlying problems. The asymmetrical, more strenuous, treatment of those who follow the rules has been the main factor for the overall low productivity and competitiveness of the economy over time. The adopted tax and social security system unduly burdens those who contribute to economic activity. At the same time, the system is complicated and volatile, functioning as an entry barrier. A rationalisation of this system is therefore a priority to achieve higher growth rates over the next period and, eventually, to make the fiscal targets achievable as well.

Overall, during the almost decade-long crisis, opportunities to develop the economy are being lost. Its structural characteristics do improve, but at a slow pace. The dramatic shortfall in investment is of central importance - it will not be reversed unless economic policy achieves greater credibility. Although the clarification of the funding conditions of the economy after the end of the programme is certainly important, both the regained access to the global capital markets and the management of bilateral debt over the medium term will achieve more favourable terms if there is more progress in improving the structural characteristics of the economy. In contrast to what has been claimed by some during the crisis, the access to additional resources for a smooth exit from the crisis is directly linked to the reform progress.

Apart from the timely and smooth completion of the current, third, review, the functioning of product markets (by reducing entry barriers and settling non-performing loans) and of the public administration constitute a relative priority. For as long as these issues are delayed, the uncertainty will intensify, while the access to new financing and the debt restructuring will take place under less favourable conditions. Apart from the fact that this will entail additional costs for the already heavily burdened households, it will signify that the Greek economy will become more vulnerable to potential risks, of political or financial nature, in the international environment. In the shifting technological and geopolitical environment of our time, Greece can utilise its substantial advantages only if it follows a course that will gradually create an open economic system.

1. BRIEF OVERVIEW - CONCLUSIONS

Accelerating global growth in 2017, most likely to carry over into 2018

The world economy grew at an average rate of 3.1% in the first half of 2017, compared to 2.8% in the corresponding quarter of 2016, its best performance since 2014. In addition, the forecasts converge on acceleration of global growth in the second half of 2017 and in the following year. The GDP of the major developed economies (G7) rose in the second quarter by 2.0%, compared with 1.8% in the previous quarter, posting its fastest rate in two years. In all G7 countries, except the United Kingdom, growth strengthened compared with the previous quarter, most in Japan (2.1% from 1.4%) and in France (1.8% from 1.1%). The positive momentum was fuelled mainly by the growth of international trade and the continued loose monetary policy in the Euro area and Japan. In the major Asian developing economies, the growth rate in China remained throughout the first half of this year at 6.9%, recording its highest level in two years. The growth rate remained unchanged in India as well, at 6.0%, albeit it was much lower than in the corresponding period of 2016 (8.3%), which was expected due to the banknote replacement process. In Latin America, Brazil's economy posted a marginal growth of 0.2% in the second quarter, after three years of recession.

The global economic activity is expected to keep strengthening in the current half of 2017 and over the coming year, mostly from expansionary monetary policy in economic regions and major economies (Euro area, Japan, China), steadily high growth rates of international trade and strengthening expectations of businesses and households. That said, the less accommodative monetary policy in the US and the slightly higher year on year oil price, due to growing international demand, will not allow the world economy to grow even faster. The decline in productivity, due to the ageing of the working population and the slowing labour force growth, will gradually have an impact on the growth of the world economy in the current and subsequent years.

In detail, the expansionary monetary policy remains the key growth driver in the Euro area. The expansion of international trade resulted in a positive contribution of net exports in the first half of 2017, after a year and a half of a negative impact. Then again, the significant boost from the ECB's quantitative easing programme makes the Eurozone economy particularly vulnerable to changes in the programme. Hence, the forthcoming decision on its continuation is critical for the medium-term growth prospects. Given the effects of a sudden monetary policy change and the difficulties to achieve the target inflation rate (2%), the extension of the quantitative easing programme, with reduced monthly purchase volume, is the most likely outcome. Other major economic policy challenges in the Euro area include the fortification of European banks in some countries, due to the very high rate of non-performing loans, the Brexit negotiations and the migration flows.

In the US, the weakening of the impact from the loose monetary policy of the Fed can offset the announced fiscal package of tax cuts, even though at present its size and details are yet to be finalised. The concerns about the new US administration implementing a protective trade policy are still present, even though they have waned with time.

Regarding the major developing economies, China's economy has to face the challenges of rapidly increasing credit expansion, as well as of other imbalances that have accumulated, such as the income inequality. Low international prices of energy commodities, weak public finances and the effort to maintain the stability of the financial sector limit the prospects of the Russian economy.

Under these conditions and prospects in the global economy, **IOBE projects an acceleration in the growth of world GDP in 2017, to 3.7% from 3.2% last year, which will continue to strengthen marginally in 2018 (to 3.8%).**

Slight growth acceleration in the second quarter of this year

The GDP of the Greek economy remained on the rise for the second consecutive quarter between April and June, at a slightly higher pace than in the previous quarter, 0.8% against 0.4%. Overall, in the first half of this year, the gross domestic product was higher by 0.6% year on year. Note that the GDP stood at €92.6 billion in the first half of this year, as in 2015, while in the first half of 2013 and 2014 it was marginally lower, at €92-92.3 billion. Therefore, the Greek economy has been virtually stagnant during this time of the year over the past four years.

In detail as to the trends in individual components of GDP in the first half of 2017, **domestic consumption was 1.1% higher compared to the same period of last year, when it had fallen by the same rate**. Growth in both of its basic components, especially in private consumption, at 1.0% and secondarily in public sector consumption, which did not exceed 0.7%, contributed to its expansion. However, public consumption had declined by 2.5% a year earlier, while the reduction of household consumption was weaker (-0.6%).

Investment marginally strengthened year on year in the first half of this year, by 0.6%, due solely to their growth in the first quarter, by 19.6%. In the same half of 2016, the investment expenditure strengthened by 24.8%, due to the expansion of inventories (+€978 million). Most (75%) of the strong contraction in the second quarter of this year, which reached 17.1%, came from a move in the opposite direction compared with last year, as the trend in stocks changed sign from positive to negative. The reduction of fixed capital formation in this period did not exceed 4.6%. Investment in fixed capital expanded by 2.7% overall in the first half of this year, just as in the same period of last year.

With regard to the external sector, **exports** expanded by 7.4% overall in the first half of 2017, against a fall by 10.3% in the corresponding period of last year. Their growth strengthened in the second quarter, reaching 9.5%, the third best performance in the EU during that period. This increase came, as throughout the first half, mainly from the strengthening of the international demand for services from Greece, by 11.5%. However, the growth of the exports of goods was also strong (+8.8%). On average in the first half of this year, the exports of services increased by 9.6%, while a year ago they had retreated extensively (-23.1%). The exports of goods increased by 6.8% in the first half of the current year, quite a bit stronger than a year earlier (+2.9%).

The weakening of the consumer demand growth and the trend change in fixed capital formation to negative in the second quarter was reflected in the much lower quarter on quarter increase of **imports** (3.1% versus 11.7%). Overall in the first half of 2017, imports increased year on year by 7.3%, more than offsetting their decline a year ago by 6.2%. The growth of the imports of services was more than double than that of goods, 13.5% against 6.3%. **Despite the marginally higher growth of exports compared with imports, as the absolute size of the latter is persistently larger, the balance of the external sector in national accounting terms worsened, by 7.0%, or €210 million, and stood at €3.2 billion or 3.5% of GDP.**

GDP growth of the Greek economy in 2017 at 1.3%, accelerating to about 2.0% next year

The domestic politico-economic developments in the second half of this year will be influenced and determined, first and foremost, by the easing of the turmoil caused by the second review of the implementation of the third Programme of Economic Adjustment and the relatively stable economic environment which has prevailed upon its completion, secondly, by the progress with the upcoming review, in particular as regards to the possibility for additional fiscal measures in the coming years and thirdly by the outcome of the new stress test on major Greek banks, which until recently was at a focal point in the consultations between IMF and the European Commission.

The positive effects of the completion of the second review on the climate in the Greek economy are reflected in the relevant leading activity indicators. The Economic Sentiment Indicator in Greece stood at 100.6 points in September, 6.6 points higher than in June, reaching its highest level in three years.

As to the possible events and developments coming soon in relation to the third review of the Economic Adjustment Programme, the completion of the 95 prior actions will be at the heart of the negotiations with the official lenders, given the small degree of their implementation so far.

Regarding the fiscal policy for the coming year, despite the additional direct tax measures contained in the medium term fiscal strategy (MTFS) 2018-2021, the projected revenue from direct taxes next year in 2018 Draft State Budget falls short by €678 million from the corresponding MTFS projection. Combined with certain changes in national accounting adjustments, this has resulted in a greater than projected State Budget deficit in ESA 2010 terms (-€2.7 billion, instead of -€1.9 billion), as well as a smaller primary surplus. This is projected to be offset at General Government level with a much larger than initially projected positive balance of the social security funds, by €1.35 billion.

The above change in the factors that would drive the achievement of the primary fiscal surplus target next year is expected to be at the heart of the negotiations accompanying the third review. Perhaps, interventions in other sectors of General Government, or on the revenue and expenditure of the State Budget, are also going to be discussed and agreed, in order to alleviate the need to achieve a much larger surplus exclusively from the SSFs. It is quite possible that the discussions around the final mix of economic policy for the coming year will prolong the third review process.

In any case, the fiscal measures for 2018, set last May in the MTFS 2018 – 2021 (e.g. VAT increase in the NE Aegean Islands and the Dodecanese, levy on stay in hotels, rooms, etc., elimination of the 1.5% discount on withholding tax with the filing of tax returns, higher social security contribution of freelancers), imply additional burden from taxes and levies. However, unlike previous years, some of the upcoming measures do not concern the majority or large segments of the population and businesses.

When the tranche of the loan with the European Stability Mechanism (ESM), linked to the completion of the third review, is going to be paid depends on the speed of completion of the upcoming review. Part of this tranche is intended for the payment of accumulated arrears, which will contribute to enhancing the liquidity of businesses. It is essential to exploit every available source of liquidity, which is reinforced by the significant under-performing of the Public Investment Programme and the persistent, with gaining momentum, credit contraction by the banks.

Especially on the issue of the credit supply by the domestic banking system, a significant change of the trend is not expected until the impact of the processes surrounding the non-performing loans on bank capital has played out. The loan settlements will affect the property of enterprises and households as well. If it will not substantially change, their deposits are expected to return to the banks, prompted by the general improvement of the economic expectations, as presented above. The easing of uncertainty has already reflected in the slight return of deposits of the private sector since May.

The new assessment of the capital adequacy of the banks is an additional factor that impedes the availability of funds from the banking system. Although at present, the period when the stress test will take place has not been determined, it seems from the views exchanged so far that it will be conducted before the end of the current Economic Adjustment Programme and most probably in the first half of the year. These developments are estimated to have already led the banks to take measures to preserve and enhance the quality of their assets, impeding changes in the provision of credit. This assessment is confirmed by the fact that between June and August, the rate of credit contraction to the private sector accelerated compared to the first five months of the year, to 6.5% from 5.0%. Under the above conditions and expected developments in the banking system, the credit tightening is expected to continue over the rest of 2017 and in 2018, at least until the announcement of the outcome of the stress test. This development will have a negative impact on investment and household consumption.

The long-standing difficulties of drawing liquidity from the banking system have led the large corporations, especially those that are listed on the stock markets, to seek access to capital through financial markets, in Greece and abroad, since the beginning of this year. It is expected that other companies, besides those that already have used these means of access to capital, will attempt to finance the operation and their investments in the same way in the coming months, utilising also the favourable environment formed because of the completion of the second review.

The underperformance of the Public Investment Programme also exerts pressures on the availability of capital for business investment. Only €1.6 billion were disbursed in the first eight months of this year, against a target of €2.1. The amount of grants is similar to that in 2015, when the Greek Government faced an intense liquidity crunch. The slower implementation of PIP since the start of the year comes from much smaller than a year ago inflows from the EU. It would be very difficult to cover the gap in the absorption of EU funds in the few remaining months until the end of 2017. Subsequently, it is quite possible that the goal for investment grants will not be met, with corresponding effects on investment activity.

The effects of the low EU funds absorption in 2017 can be offset by drawing more funds next year. The Investment Plan for Europe also provides funding opportunities, which have largely not been taken up in Greece so far. Then again, the PIP expenditure for 2018 in the Draft State Budget is no different from that of 2016 and 2017 (€6.75 billion). Nevertheless, the front-loaded implementation of the PIP is sufficient to boost its support to investment activity, but this requires a corresponding inflow of EU funds.

Weaker liquidity support to businesses this year, compared with last year, is expected from the payment of Greek State arrears to suppliers. This year €800 million were received for that purpose, as part of the loan sub-tranche linked with the second review of the current Programme. The disbursement of the last sub-tranche of €800 million, also intended exclusively for payment of arrears, is still pending. It has not been paid yet, as the payment of arrears with the funds from the previous sub-tranche has yet not reached €1.2 billion, as there is a commitment that for every euro from the loan for this purpose, the State will provide half a euro of own resources. The funds allocated in July to public entities for settling outstanding arrears, and for tax refunds, did not exceed €255 million. Considering the commitment to national participation in the financing to repay arrears from the ESM loan and the weak flow of grants for their payment by the Greek State until July, it is very likely that the last sub-tranche of €800 million will experience further delay.

As for developments in fields other than funding and liquidity that will affect the momentum of investment activity in the second half of 2017 and in 2018, the most important privatisation actions to be carried out by the end of this year are those that were expected in the previous report of IOBE on the Greek economy (sale of 66% of DESFA, 100% of ROSCO SA). The concessions and privatisations that were completed in 2016 are expected to boost investment activity from the following year, after the completion of the planning and licensing of the related investment projects.

Regarding the external sector of the economy, the exporting enterprises appear to benefit from the stronger global trade activity in 2017. However, the strengthening of the demand for imports since the beginning of this year until July exceeded the growth of exports, highlighting the accumulated needs of businesses and households as a result of the capital controls. This effect has resulted in the deterioration of the balance of goods and services for the first time since 2010.

Taking into account the above trends in economic indicators, and the anticipated developments (mainly those linked to the upcoming review of the economic adjustment programme and the domestic banking sector) for the forecasting of the GDP components and other macroeconomic indicators, the increase of **household consumption** in the first half of the year 2017 will continue in its subsequent quarters. Its slightly stronger growth in the current half is considered most likely, primarily from the significant decline in unemployment, coming from employment growth mainly in export-oriented Manufacturing branches, Tourism, and Wholesale-Retail Trade. The impediment to a greater increase of private consumption in the first half of the year from the fiscal measures taken under the first review will subside from the third quarter, as most measures were applied from the same period of last year. The expansion of electronic payments will help strengthen the private sector consumption this year. **Despite the stronger expansion in the second half, after its weak rise in the first, the growth of private consumption overall in 2017 will not surpass 1.2%.**

The further decline of unemployment in 2018, from new jobs in export-oriented sectors and Construction, combined with lower burden on the disposable income of households from the new fiscal measures, **create the conditions for their consumption to continue to grow, at a rate of about 1.7%.**

Concerning the other strand of domestic consumption spending, **public consumption,** the forecast for higher consumption spending of the public sector in the current half stands, given that most of the tranche linked with the second review has been disbursed. According to the latest data on the execution of the budget at the General Government level (consolidated basis), the personnel expenses, which constitute the main component of public sector consumption, increased in July and August by 2.5% at current prices, as in the first half of this year. **Following the rise of public consumption spending in the second half of this year, the average increase in the whole year will reach around 1.0%.** As the fiscal consolidation will continue next year mainly through higher revenue from direct and indirect taxes, and social security contributions, with minor new spending cuts, **public consumption is most likely to expand in 2018, by about 1.5%.**

The limited supply of funds from the banking system, as the deposits return at a low rate and in order to preserve the banks' capital adequacy, with a view to the settlement of non-performing loans and the upcoming stress test of the ECB, coupled with delays in the implementation of the Public Investment Programme, will constitute the major impediments to **business investment** in the second half of this year. Having said that, the investment plans that awaited the completion of the second review have passed to the stage of implementation in the current period. The change of stocks is a factor expected to have a positive, possibly significant, effect on investment activity in the second half of this year. Their contraction is projected to be considerably weaker this year (-€2.55 billion). **Taking into account these effects, investment is expected to grow by 8-9% this year, largely from the technical effect of differences in the change of stocks in the second half.**

The negative impact from the settlement of non-performing loans and the upcoming stress test will carry over into the new year, at least until the announcement of the results of the stress test. A steady stream of deposits returning to the banking system to have manifested until then is a necessary condition for the gradual change of the credit policy after this point in time. However, many large companies will deal with the difficulties in accessing investment capital by raising funds from the capital markets.

The contribution of PIP to investment activity is expected to be stronger in the new year, mainly from the more upfront implementation of the PIP compared with the current year. The start of investment in completed privatisation – concessions will boost investment activity. However, it is possible that the implementation of investment is delayed or adjusted, because of issues arising during the authorisation procedures. **As a result of the effect of these factors, investment will expand at a double-digit rate in 2018, in the region of 12-15%.**

In the external sector of the Greek economy, the export activity during the current half, particularly in goods, is expected to benefit from the accelerated growth in the European Union and the US. Regarding the exports of services, travel receipts have strengthened steadily since March, which is expected to carry over to the second half of the year. The exports of transport services have grown steadily and significantly since the beginning of 2017. **The expansion of the exports of goods other than fuel and ships, coupled with the steady rise of international transport services and the growth of tourist services, will push total exports up by 6.5% in relation to 2016.**

The stronger growth in the EU in 2018, according to the latest reports of international organisations, as well as in developing and emerging economies with a growing share in the Greek exports of goods (Middle East, North Africa), will contribute to their further increase in the coming year. The intensity of the export growth will depend on the trend of the euro/dollar exchange rate. The continuation of conflicts in the Arab countries and the lingering flux in the Turkey-EU relations will continue to act as a deterrent to Tourism in the region and to favour international transport through Greece. **Currently, there is no significant obstacle to a further increase of exports in 2018, with our initial assessment of their growth set in the region of 6.0-7.0%.**

The slight growth acceleration of domestic consumption demand in the second half will continue to fuel the demand for imports. That said, expansion of imports of fixed capital goods is not expected in the current period, due to low investment. The appreciation of the euro against the dollar, which counteracts a large part of the effect of the slightly higher year-on-year oil price on its demand, enhances the domestic purchasing power. **As a result of their weaker growth in the second, compared with the first half of 2017, imports will expand by 6-6.5% overall in the current year.**

Regarding the trend in imports next year, the slightly stronger increase in domestic consumption is estimated to largely concern imported products. However, the projected substantial increase in investment would not have a similar effect on imports, as a large part of it concerns construction projects. **Therefore, the demand for imports is expected once more to increase, stronger than exports.**

Taking into account the above trends in factors that affect the components of GDP, the growth rate of the Greek economy in 2017 will be slightly lower than expected earlier this year, in the range of 1.3%. Its acceleration to about 2.0% or possibly slightly higher is considered quite likely.

Execution of the 2017 State Budget: target overshot from cost containment – a significant lag in direct tax receipts

Based on the provisional data for the first nine months of this year, **the execution of the State budget lags marginally behind the relevant targets.** The **deficit** stood at **€367 million**, against a target of €292 million, while **the primary surplus reached €4.5 billion,** approximately €55 million less than the relevant target in the Medium Term Fiscal Strategy 2018 – 2021. The **shortfall against the target** came from **lower net revenue of the Ordinary Budget,** by €2.29 billion. However, the bulk of the shortfall came from larger than expected in the MTFS tax returns, by €1.76 billion, while the commencement of the payment of the 2017 unified property tax (ENFIA) a month later than last year also contributed to this. Whether this also came from shortfall of other taxes and revenues (e.g. from privatisations) will become clear after the announcement of the final, detailed data for the first nine months. The State Budget expenditure is short of the target by €2.3 billion, of which €722 million relate to **Public Investment Programme grants.** The containment of expenditure is partly due to a change in the method of accounting the payment of called guarantees.

Draft State Budget 2018: achievement of the targets with changes in the expected contribution of the fiscal balance components

According to the Draft State Budget for 2018, the primary surplus target for General Government based on the methodology of the loan agreement with the ESM, stands at €6.67 billion or 3.57% of GDP, marginally higher than the target set in the MTFS 2018 – 2021 (€6.63 billion, or 3.53% of GDP). Compared to the MTFS 2018 – 2021, the projected revenue from direct taxes is revised down significantly, by €678 million, following a similar revision of direct tax revenue during the current year. Both revisions came mainly from lower than initially anticipated tax base, i.e. from lower household income and weaker business profitability. The balance of the State Budget in ESA 2010 terms is aggravated by changes in national accounting adjustments, such as the transfer of revenue from the last instalment of ENFIA for the current year from January 2018 to 2017, and the expenditure for actions supporting growth and social cohesion that were not envisaged in the MTFS 2018-2021. This is projected to be offset at General

Government level, in order to achieve the primary surplus target, by a much larger than initially projected in the MTFS positive balance of the social security funds, by €1.35 billion.

Slightly stronger fall of unemployment in 2017, weaker decline in the coming year

Unemployment declined further to 21.1% in the second quarter of this year, reaching its lowest rate in five and a half years, two percentage points lower year on year. **Overall in the first half of 2017, the unemployment rate stood at 22.2%, 1.8 percentage points of lower compared to the same period of 2016.** The decline of unemployment came by 80% from employment growth and by 20% from labour force contraction. At the sector level, most jobs in the first six months of the current year were created in Wholesale – Retail Trade (+19,800 or + 3.0%) Accommodation - Food Services (+11,900 or + 3.6%) and Manufacturing (+10,000 or +3.0%).

In the second half of 2017, the continued growth of exports in Manufacturing branches and Tourism will preserve most jobs created earlier this year. Employment in these sectors is most likely to expand further, at least in the third quarter. The consistently higher year on year household consumption demand will preserve most jobs created in Retail – Wholesale Trade in the second quarter of this year. Positive effects on employment are expected to come from the autumn from the Construction sector, following the steady, substantial growth in the issuance of new building permits since the start of the second quarter. Therefore, **the expected effects on the labour market in the second half of this year remain mostly positive. As a result, unemployment will decline in 2017 to 21.7%.** Unemployment is expected to ease further in 2018, from a boost of employment in most sectors that contributed to its decline in the current year. The contribution of Construction to the new fall in unemployment is expected to be stronger, while the creation of jobs in Tourism will probably weaken. **As a result of the above sector trends, unemployment will decline next year to about 20%.**

Modest inflation in 2017 and 2018, at a similar rate

The Consumer Price Index kept growing in the third quarter (July – August), but at a slower pace than in the first half of this year, 0.9% against 1.3%. Overall in the first eight months of this year, inflation stood at 1.2%, compared to 0.9% deflation in the corresponding period of last year. The rise in prices in July and August came from higher indirect taxes, mainly on petroleum products, tobacco and cigarettes, as the international oil prices were lower year on year. The impact of certain indirect taxes was once more revealed by higher prices in Transport, Alcoholic Beverages – Tobacco and Housing, CPI categories of products and services with the largest inflation rates (+7.2%, +6.9% and +2.5% respectively).

The price rise from increases in indirect taxes and the levy of new ones will continue until the end of 2017, for one year since their imposition. As this effect has weakened since the start of the year, it is estimated that in the final four months inflation will decline. The international oil prices are expected to fluctuate in the fourth quarter near their last year level, which will probably carry over to 2018, according to the latest forecasts by international organisations (IMF). It is likely to rise slightly later in the year, from accelerating economic growth in the Euro area and in the emerging economies. The appreciation of the euro against the dollar absorbs some of the inflationary pressure of oil on consumer prices. Therefore, **as a result of the weakening of the impact of indirect taxes and international oil prices on the CPI, inflation will slow down in the final 4 months of this year. Overall in 2017, the CPI will rise for the first time in four years, by 1.0%.** The new indirect tax rises since the beginning of 2018 (VAT in the Northeast Aegean and Dodecanese islands) and the imposition of new levies (residence tax on hotels, rented rooms and apartments), the higher year-on-year oil prices in the second quarter and the strengthening consumer demand will keep prices on the rise in 2018, at comparable rates with this year.

Special Study: Tertiary education in Greece: Effects of the crisis and challenges

The Greek higher education sector expanded significantly in recent decades, with the creation of institutions, faculties and departments at central and regional level. It is one of the most open systems in Europe and internationally, giving access to more than 60% of the youth of every generation. At the same time, the higher education in Greece remains one of the most centralised systems in Europe and the ability of the institutions to devise their strategy remains limited.

The study summarised in this chapter is an overview, recording and documentation of the impact of the Greek economic crisis and its management on the tertiary education system. It examines the evolution and the changes that have occurred in the basic characteristics and activities of higher education institutions, after the outbreak of the economic crisis. In addition, the study includes a detailed set of recommendations and policy proposals for the effective response to the challenges faced in the context of the formulation of a national plan to exit the crisis and return to long-term sustainable and strong growth.

2. ECONOMIC ENVIRONMENT

2.1 Trends and Prospects of the World Economy

The Global Environment

The **world economy** grew at an average rate of 3.1% in the first half of 2017, compared to 2.8% in the corresponding period of 2016, its best performance since 2014. The world economy is expected to accelerate further in the second half of 2017 and next year. In the latest forecasts by the International Monetary Fund[1], the global growth rate acceleration was revised marginally up to 3.6% in 2017 and 3.7% in 2018.

The acceleration of global economic activity is mainly due to a recovery in investment, trade and manufacturing in developed and developing economies, coupled with stronger consumer and business sentiment, giving impetus to consumption and investment already since late 2016. In the developed economies, the steady positive momentum is expected to be powered by stronger international trade, continued loose monetary policy in the Euro area and Japan, and, possibly, some fiscal expansion in the US. In the developing economies, the prospects of recovery are based on robust domestic demand in China, the return to growth of large developing countries, such as Brazil and Russia, and revitalised demand from the developed economies.

In the latest IMF report on the world economy, the growth rate of the volume of international trade was revised up, for both 2017 and 2018. While in 2016, the international trade volume increased by 2.4%, it strengthened significantly in early 2017, resulting in an expected annual growth rate of 4.2% in 2017 and 4.0% in 2018.

A special feature of the current economic climate is that the overwhelming majority of countries in the world are in a growth phase, a phenomenon referred to as "synchronized global growth". In particular, the IMF predicts positive growth in 2017 (October 2017) in 181 of the 193 economies in the world. Some countries in the Middle East, Latin America and sub-Saharan Africa, especially economies that rely on the exports of oil, are exempt from this. Such a positive economic environment, if confirmed by the developments, is a great **opportunity**, but also a challenge for the policy makers. On one hand, this is an opportunity for economic policy to focus on achieving inclusive growth, in implementing structural reforms that increase potential output, and on sound fiscal management, especially in countries with high borrowing levels, given the reduced need for expansive fiscal policies and the greater liquidity offered by the current international monetary policy environment.

[1] IMF World Economic Outlook, October 2017

On the other, the current situation presents significant **challenges**. In developed economies, according also to reports of international organisations, challenges arise from the slowdown of productivity growth, the aging of the population, the very low inflation and low wage growth, income inequality, prolonged euphoria in financial markets and financial system risks, a gradual process of shrinking central bank assets, political populism, and geopolitical tensions.

In the developing economies, high-speed credit expansion in some countries like China, high borrowing in foreign currency, relatively low international prices of raw materials, propensities for trade protectionism, and the exposure to the risk of a sharp rise in the US interest rates that would cause exodus of investment funds from these countries and exert pressure on their currency, add to the challenges.

Table 2.1

Global Environment (annual % GDP growth, in real terms)

Economy	Share*	2016	2017 Forecast	2017 Difference from previous forecast**	2018 Forecast	2018 Difference from previous forecast**
World	100	3.2	3.6	0.1	3.7	0.1
Developed	41.8	1.7	2.2	0.2	2.0	0.1
Developing	58.2	4.3	4.6	0.0	4.9	0.1
USA	15.5	1.5	2.2	0.1	2.3	0.2
Japan	4.4	1.0	1.5	0.2	0.7	0.1
Canada	1.4	1.5	3.0	0.5	2.1	0.2
United Kingdom	2.3	1.8	1.7	0.0	1.5	0.0
Eurozone	11.7	1.8	2.1	0.2	1.9	0.2
Germany	*3.3*	*1.9*	*2.0*	*0.2*	*1.8*	*0.2*
France	*2.3*	*1.2*	*1.6*	*0.1*	*1.8*	*0.1*
Italy	*1.9*	*0.9*	*1.5*	*0.2*	*1.1*	*0.1*
Emerging Europe	3.5	3.1	4.5	1.0	3.5	0.3
Turkey	*0.9*	*3.2*	*5.1*	*2.6*	*3.5*	*0.2*
Developing Asia	31.6	6.4	6.5	0.0	6.5	0.1
China	*17.7*	*6.7*	*6.8*	*0.1*	*6.5*	*0.1*
India	*7.2*	*7.1*	*6.7*	*-0.5*	*7.4*	*-0.3*
Commonwealth of Ind. States	4.5	0.4	2.1	0.4	2.1	0.0
Russia	*3.2*	*-0.2*	*1.8*	*0.4*	*1.6*	*0.2*
Middle East & North. Africa	7.7	5.0	2.6	0.0	3.5	0.2
Latin America	7.8	-0.9	1.2	0.2	1.9	0.0
Brazil	*2.6*	*-3.6*	*0.7*	*0.4*	*1.5*	*0.2*
Sub-Saharan Africa	3.0	1.4	2.6	-0.1	3.4	-0.1
World Trade		2.4	4.2	0.2	4.0	0.1

* As a percentage share of world GDP
** Difference in percentage points compared with the IMF estimates in July 2017, with the exception of Turkey where it is in relation to the IMF estimates in April 2017
Source: World Economic Outlook, IMF, October 2017

In the **developed economies**, the GDP growth rate stood at 2.2% on average in the first half of 2017, compared with 1.8% in the corresponding period of 2016, its best performance since 2014. The GDP of the OECD countries grew by 2.3% in the first half of this year, compared to 1.7% in the same period of 2016, with the growth rate strengthening for the fourth consecutive quarter. In the major economies worldwide (G20), the rate of growth in the first half of 2017 stood at 3.5%, a better performance than in the corresponding period of 2015.[2] In all the above regions of major economies, the growth rate strengthened in the second quarter of 2017 both quarter on quarter and year on year.

The developed economies produce 41.8% of the world GDP. In the latest IMF forecasts, the growth rate of the developed economies was revised up to 2.2% for 2017 and 2.0% for 2018.

Among the developed countries, the growth rate strengthened in the second quarter of 2017 in the **US**, for the fourth consecutive quarter, to 2.2%, up from 2.0% in the first quarter and 1.2% in the corresponding quarter of 2016. The acceleration is based on higher consumption and investment, with business confidence remaining strong. Based on the latest IMF forecasts, the US growth rate is expected to reach 2.2% in 2017 and 2.3% in 2018, higher than the previous projection by 0.1 and 0.2 percentage points respectively. As regards fiscal policies, a significant fiscal package of tax cuts was announced, boosting consumer and business expectations, even though for the time being its size and terms have yet to be finalised. Meanwhile, the Fed is heading progressively towards a less loose monetary framework. The uncertainty of whether the new US administration will exert a protective trade policy is still present, although it has waned with time.

In the **Euro area**, the growth rate strengthened to 2.3% in the second quarter of 2017, compared with 2.0% in the first quarter and 1.7% in the same quarter of last year. In the **United Kingdom**, the GDP growth slowed to 1.5%, compared with 1.8% in both the first quarter and a year earlier. The pending negotiations on the post-Brexit period generate uncertainty, which puts a burden on the short-term economic prospects, especially in the area of investment. In Canada, the rate of growth strengthened to 3.7% in the second quarter of 2017, compared with 2.3% in the first quarter and 1.1% in the second quarter of last year.

In Japan, the growth rate increased to 1.6% in the second quarter of 2017, from 1.4% in the initial quarter and 1.0% in the second quarter of last year. Aided by exports and fiscal expansion, the country is going through 18 months of mild but steady recovery, its longest period of

[2] Sources: IMF International Financial Statistics, http://data.imf.org/regular.aspx?key=61545864 και OECD Quarterly National Accounts, https://stats.oecd.org/Index.aspx?DataSetCode=QNA

growth in the last decade. The price change is marginally positive, while the monetary policy is expected to continue to be loose. Apart from the inflation target, the high public debt and budget deficit, due to the expansionary fiscal policy remain a challenge for the revitalisation of economic activity.

The **emerging and developing economies** expanded at an average rate of 3.8% in the first half of 2017, compared to 3.6% in the first half of 2016, their best performance since 2014. These countries account for 58.2% of the world GDP. Based on the latest IMF forecasts, the growth rate of the developing economies is expected to accelerate in the second half of 2017, with the rate of change for the whole year reaching 4.6% in 2017 and 4.9% in 2018. Geographical regions with strong trade relations with Greece, such as the "emerging Europe" and the "Middle East and North Africa" increased strongly in 2017, by 4.5% and 2.6% respectively, despite the recent slowdown in the second region and specifically in oil-producing countries. The rest of this subsection refers to five of these economies, which produce in total 31.6% of the world GDP.

In detail, in **China**, the growth rate remained stable in the second quarter of this year, at 6.9%, mainly because of restraint on investment. The anticipated growth rate for China in 2017 is set at 6.8%, expected to slow down a little in 2018, to 6.5%, driven mainly by investment and exports. The need to curb the rapidly increasing credit growth and the income redistribution policies are two significant challenges for the Chinese economy. As noted by the European Commission in its recent report, China's transition to a new pattern of economic growth, seeking to correct a number of imbalances that had accumulated in the past, might create friction in the world economy.

In **India**, the growth slowed to 5.9% in the second quarter of this year, from 6.0% in the previous quarter and 7.9% in the corresponding period of 2016. However, the anticipated growth rate was revised up to 6.7% for 2017 and 7.4% for 2018, inter alia because of the expected impact of recent structural reforms. The non-performing loans that exceed 10% of the total loans constitute a major challenge for the economy.

In **Russia**, after the recession of 2015-2016, the recovery continued in the third quarter at a rate of 2.3%, from 0.6% in the previous quarter and a mild contraction of 0.5% in the same quarter of 2016. The recovery in Russia is expected to reach 1.8% in 2017 and to remain at about the same level in 2018 (1.6%). The low international prices of energy commodities, the weak fiscal balance and the stability of the financial sector are key challenges ahead for the Russian economy.

In **Brazil,** there was a marginal growth of 0.2% in the second quarter, for the first time after three years of recession. The economy is expected to recover mildly from the deep three-year recession, at a rate of 0.7% in 2017 and 1.5% in 2018.

Amid political instability, the double-digit unemployment rate combined with a high fiscal deficit is the major challenge.

Turkey recorded a significant acceleration of its growth rate in the second quarter of 2017, to 6.1%, from 4.7% in the previous quarter and 3.4% in 2016, due inter alia to export over-performance. At the same time, inflation reached double-digit rates within 2017. The uncertainty posed by political instability and tension in external relations, together with the fact that, according to IMF estimates,[3] the GDP has already exceeded considerably its potential level, is a major challenge for the Turkish economy.

The IFO estimates about the economic climate in the world economy in the second quarter of 2017 followed a positive trend, with small variations compared with the previous quarter. In detail, the balance of estimates on the world economic climate marginally decreased, to 12.7 points, remaining at a three-year peak level. Regarding the present situation, the balance improved further, to 12 points, remaining positive for the second consecutive quarter after six years of negative levels. Finally, the expectations weakened substantially, where the balance stood at 13.4 points, from 21.6 in the previous quarter.

The Euro area continued to improve impressively in the third quarter of 2017, with the economic sentiment index rising to 35.2 points, from 26.4 in the second quarter, its best performance in the a decade, highlighting the positive developments in the labour market and in prices. As regards the assessment of the current situation, the balance stood at 33.5 points, from 21.9 points in the previous quarter, a performance that also is the best in a decade. Finally, the expectations balance improved eaching 37.1 points, against 31 points in the second quarter of 2017, its best performance since the third quarter of 2015. The greatest improvement in the balance of expectations was observed in France.

The inflation rate in the developed economies varied at around 0.8% in 2016, while the IMF estimates that it will rise to 1.7% in 2017 and 2018, still lower than the target of major central banks. The phenomenon remains most acute in Japan and the Euro area, where the rate of change in prices was -0.1% and 0.2% respectively in 2016, notably increasing in 2017 to levels close to 0.5% and 1.5% respectively. Nevertheless, it is low against the inflation target of "close to 2%" and is temporarily influenced by the international oil prices. The inflation rate in the developing economies was around 4.3% in 2016, while the IMF estimates that it will remain at similar levels in 2017 and 2018. This is partly because the international prices of raw materials in foodstuffs and metals, as well as the international oil prices, after the recovery made by the end of 2016 and the beginning of 2017, will

[3] World Economic Outlook, IMF, October 2017

stay constant for the rest of this year and in 2018 at the current relatively low levels.

In the developed economies, the **monetary policy stance** remains accommodative, in order to boost the price levels closer to target inflation. The fact that four of the largest central banks (US, the Euro area, Japan and the UK) have doubled the size of their balance sheet, surpassing in total $13 billion, through quantitative easing programmes is a characteristic result of the policy carried on in this context between 2010 and 2017. As it seems that some economies, including the US, are close to the inflation target, and as the economic indicators improve, a shift toward tighter monetary policy framework is expected.

The international organisations are urging the transition not to be rushed, but to take place gradually and in a way that is predictable for the markets and the investors. The Fed, as expected, made a slight increase in its interest rates in June 2017, the fourth since December 2015, while it has created expectations for further interest rate rises in the next two years, with the markets anticipating a likely small increase by the end of 2017 or in early 2018. Respectively, the Bank of Canada proceeded to two small interest rate rises in the third quarter of 2017. That said, note that growing asymmetries among developed economies as to the conduct of monetary policy, with continuing quantitative easing programmes in Europe and in Japan and a growing trend for tighter monetary policy in the US, may cause changes in capital flows and exchange rates, with possible outcomes such as strengthening of the dollar in the medium term, which would have an impact especially in emerging markets.

Table 2.2

IFO – World economic climate (balances)

Quarter/Year	**III/15**	**IV/15**	**I/16**	**II/16**	**III/16**	**IV/16**	**I/17**	**II/17**	**III/17**
Economic climate	2,4	-5,7	-7,5	-4,0	-7,1	-1,2	2,6	13,0	12,7
Assessment of current situation	-15,5	-18,1	-14,7	-17,9	-17,2	-15,4	-9,1	4,7	12,0
Expectations	22,0	7,6	-0,1	11,0	3,7	14,1	15,0	21,6	13,4

Source: IFO, World Economic Survey, Vol. III, August 2017

Table 2.3

IFO – Economic climate in the Euro area (balances)

Quarter/Year	**III/15**	**IV/15**	**I/16**	**II/16**	**III/16**	**IV/16**	**I/17**	**II/17**	**III/17**
Economic climate	18,9	16,9	13,2	6,5	4,5	8,2	17,2	26,4	35,2
Assessment of current situation	-1,0	3,9	1,6	-2,6	6,0	2,3	8,0	21,9	33,5
Expectations	40,8	30,8	25,5	16,1	3,0	14,3	26,9	31,0	37,1

Source: IFO, World Economic Survey, Vol. III, August 2017

The economies of the EU and the Euro area

In the first half of 2017, the economies of the European Union and the Euro area had a better growth performance than anticipated initially in early 2017. EU-28 grew at an average rate of 2.3% in the first half of 2017, compared with 1.8% in the first half of 2016, its best performance since 2011. Respectively, the Euro area grew at an average rate of 2.1% in the first six months of this year, compared to 1.7% in the first half of 2016, also its best performance since 2011.

According to the latest forecasts of the International Monetary Fund,[4] the prospects for 2017 and 2018 appear highly positive and slightly improved compared with previous estimates.

Net exports, which had a positive effect on GDP for the first time since mid-2015, gave a significant boost to growth in both regions in the first half of the 2017. The positive effect came from stronger growth in exports compared with imports. This result offset the weakening positive impact of consumption in both regions. The contribution of investments increased in the EU-28, but remained unchanged in the Euro area.

The composition of the GDP expenditure components has remained similar in the EU-28 and the Euro area, with consumption representing 76% and 75%, investments 21%, exports 47% and 48%, and imports 44% and 45% of GDP in the two regions respectively.

The highest growth rates in the EU-28 in the second quarter of 2017 occurred in Malta (6.0%), Romania (5.9%), Ireland (5.8%), Estonia (5.2%) and Latvia (4.8%). In contrast, the lowest growth rates were recorded in Greece (0.8%), United Kingdom (1.5%), Italy (1.5%) and Belgium (1.5%).

Regarding the **economic climate** and the key leading indicators of economic activity in the Euro area and the European Union, the €-COIN[5] indicator approached the highs of February, reaching 0.71 points in September 2017, its third best performance since 2010, capturing the positive climate in the Eurozone economy.

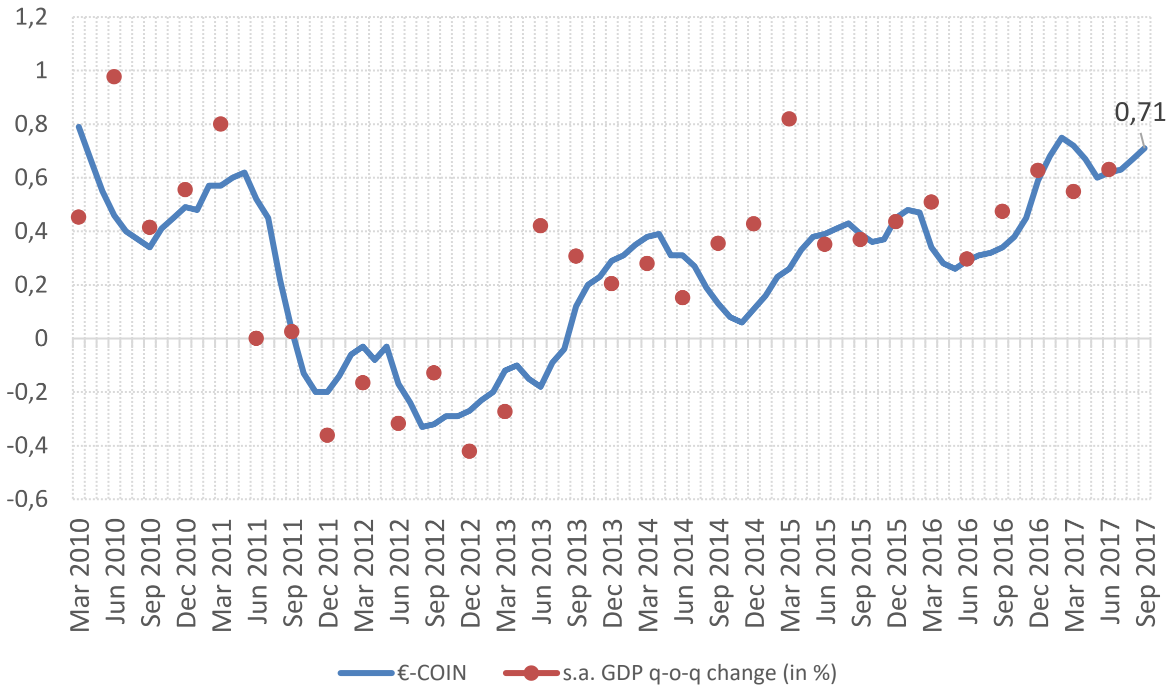
The economic sentiment indicator of the European Commission has steadily improved since the beginning of 2017, reaching 113 points in the EU and the Euro area in September, which is its best performance in a decade in both regions. The economic climate in the EU strengthened in September 2017 by 1.1 points month on month and 7.6 points year on year. In the Euro area, the economic climate improved in September 2017 by 1.1 points month on month and by 8.2 points year on year.

[4] World Economic Outlook, IMF, October 2017

[5] The Centre of Economic Policy Research in collaboration with the Bank of Italy estimates every month the leading indicator of economic activity €-COIN for the Eurozone. The indicator provides a quarterly forecast of GDP growth and is constructed from a range of different data, such as the course of industrial production and of prices, as well as labour market and financial data.

Figure 2.1

Monthly Index €-COIN of CEPR



Source: CEPR (www.cepr.org) και Bank of Italy

Table 2.4

European Commission – Economic Sentiment Indicator EU & Euro Area (1990-2017=100)

Month	Jan-16	Feb-16	Mar-16	Apr-16	May-16	June-16	July-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
EU	106.6	105.2	104.5	105.0	105.5	105.6	104.6	103.7	105.4	106.8	107.2	109.0
Euro area	105.0	103.9	102.9	103.9	104.5	104.3	104.4	103.5	104.8	106.3	106.6	107.8

Month	Jan-17	Feb-17	Mar-17	Apr-17	May-17	June-17	July-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
EU	108.6	109.0	109.2	110.7	109.7	111.3	112.2	111.9	113.0			
Euro area	108.0	108.0	108.0	109.7	109.3	111.1	111.3	111.9	113.0			

Source: European Commission (DG ECFIN), October 2017

In the third quarter overall, the indicator in the EU was higher by 1.8 points quarter on quarter and by 7.8 points year on year, while in the Euro area, the indicator was higher by 2.0 points quarter on quarter and by 7.8 year on year. **At the EU level, the greatest quarter-on-quarter sentiment gain in the third quarter of 2017 was recorded in Greece** (+5.2 points), followed by Hungary (+3.6 points), Latvia (+3.6 points), Slovakia (+2.9 points), Austria (+2.9 points) and France (+2.5 units). By contrast, the sentiment deteriorated in four countries:

Cyprus (-2.1 points), Belgium (-1.4 points), Romania (-0.6 points) and Sweden (-0.4 points). Despite the improvement, the economic climate in Greece remained the lowest among all EU member countries, lower by 13 points than the EU average.

More comprehensive information on the GDP components in the Euro area and the EU, up to the second quarter of 2017, as well as for potential trends in the coming period, is provided next in this subsection. We present data on the second quarter of 2017, as well as predictions for 2017 and 2018, as reflected in the European Commission forecasts (spring 2017) for the EU, and the latest IMF report (October 2017) for more recent figures on the Euro area.

In greater detail, according to Eurostat data for the second quarter of 2017, **private consumption** in the European Union strengthened by 2.1%, compared to 2.0% growth in the first quarter and 2.3% in the corresponding quarter of 2016, while consumption in the Euro area increased by 1.8%, against 1.6% growth in the first quarter and 2.0% in the corresponding quarter of 2016. In 2017 overall, household consumption is expected to increase by around 1.8% in both the EU and the Euro area. Among the EU countries, strong growth in private consumption in the second quarter of the year was recorded in Romania (7.7%), Poland (5.2%) and Malta (4.8%), while in contrast, sluggish growth was observed in Luxembourg (+0.7%), **Greece** (+0.7%) and France (+0.9%).

Public consumption growth picked up marginally in the second quarter of this year, compared with the first quarter, albeit remaining lower year on year, in the European Union and the Euro area. In particular, public consumption increased by 1.2% in both regions compared to about 1% in the first quarter of this year and 1.8% in the corresponding quarter of last year. Overall for 2017, it is expected to grow by 1.5% in the EU and 1.2% in the Euro area. The countries with the strongest growth in the second quarter of this year were Latvia (4.4%), **Greece** (3.3%) and Poland (3.1%), while public spending declined in Malta (-7.3%), Hungary (-2.9%) and Portugal (-0.6%).

Investment rose faster in the EU than in the Euro area, by 3.8% and 3.2% respectively, compared with 3.5% and 3.8% in the previous quarter and 3.3% and 4.8% in the second quarter of 2016 respectively. For the entire 2017, the European Commission (May 2017) projected investment to grow by 2.7% in the EU and 2.9% in the Euro area. In the second quarter of 2017, a significant rise in investment was recorded in Latvia (16.4%), Bulgaria (14.4%) and Hungary (13.0%), while investment declined in Malta (-35.3%) and in **Greece** (-17.1%).

The **exports** of goods and services continued to rise significantly in the second quarter of 2017, at a rate of 4.2% and 4.4% in the EU and Euro area respectively, compared with 4.6% and 4.5% growth in the first quarter of 2017 and weaker expansion by 3.7% and 3.2% respectively in the second quarter of 2016. The

European Commission (April) forecasted for 2017 growth of exports by 4.0% and 3.8% in the EU and the Euro area respectively. The strongest rise in exports in the second quarter of 2017 was recorded in Lithuania (11.1%), Slovenia (10.0%) and **Greece** (9.5%), while relatively sluggish growth of exports was observed in Estonia (1.3%), Poland (3.2%) and Hungary (3.4%).

Imports strengthened less than exports in both the EU and the Euro area in the second quarter of 2017, at a rate of 4.0% and 3.9% respectively, compared with stronger growth in both regions by 4.7% in the first quarter of 2017 and by 5.1% in the corresponding quarter of 2016. For the total of 2017, the European Commission (April) projected growth of imports by 4.2% in both regions. High growth rates of imports in the second quarter of 2017 were recorded in Lithuania (12.1%), Romania (10.9%) and Slovenia (9.3%), while imports declined in Malta (-6.5%) and Ireland (-3.4%).

Based on the developments in the GDP components in the Euro area, since the first quarter of 2017, the contribution of net exports is positive and growing, reflecting the rise in international trade, after a period of negative contribution since the end of 2015. By contrast, the contribution of private and public consumption weakened slightly, while that of investment marginally strengthened.

Table 2.5

Key economic figures, EU, Euro area (annual % change unless otherwise noted)

	EU			Euro area		
	2016	2017	2018	2016	2017	2018
GDP	1.9	1.9	1.9	1.8	2.1	1.9
Private Consumption	2.3	1.7	1.6	2.1	1.8	1.7
Public Consumption	1.7	1.5	1.3	1.7	1.2	0.9
Investment	2.6	2.7	3.2			
Employment				4.4	3.9	3.4
Unemployment (% labour force)	3.1	4.0	4.1			
Inflation	4.0	4.2	4.3			
Exports of goods and services				-0.4	0.2	0.1
Imports of goods and services	1.3	0.9	0.9			
Balance of General Government (% GDP)	8.5	8.0	7.7	10.0	9.2	8.7
Debt of General Government (% GDP)	0.3	1.8	1.7	0.4	1.6	1.6
Current Account (% GDP)	-1.7	-1.6	-1.5			
GDP	85.1	84.8	83.6			
Private Consumption	2.1	1.9	1.9	3.5	3.1	3.0

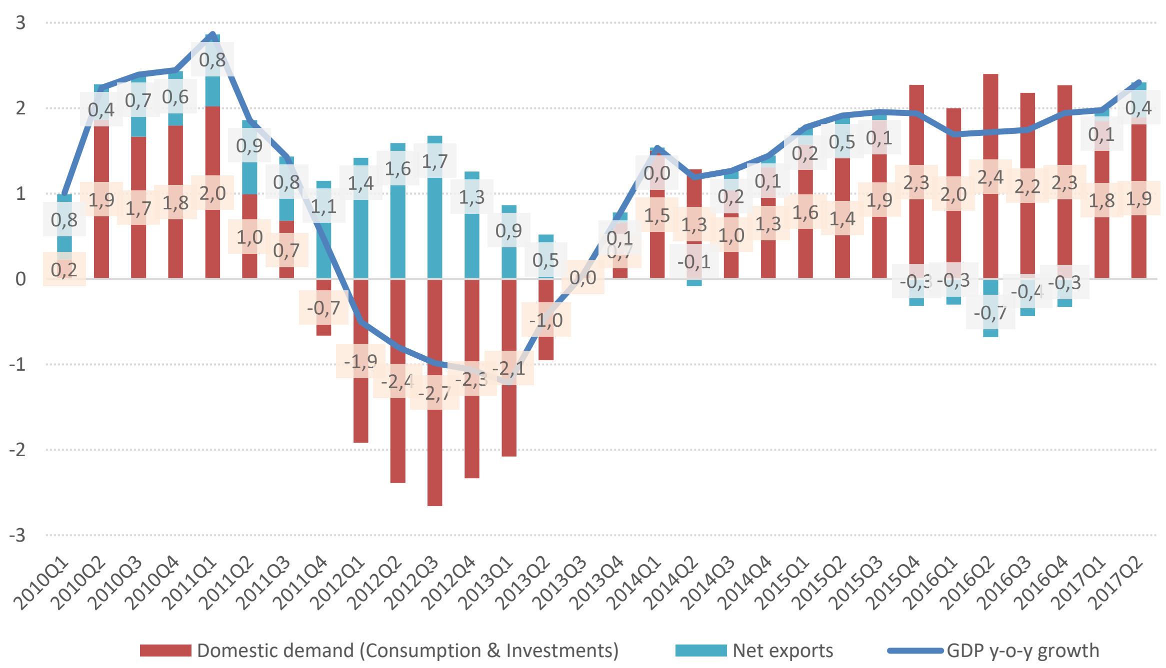
Sources: For the EU - European Economic Forecast, European Commission, Spring 2017. For the Euro area - IMF World Economic Outlook, October 2017.

The harmonised **inflation** rate stood at 1.7% and 1.5% in the EU and the Euro area respectively in August, compared to an increase of the HICP by 0.3% and 0.2% respectively in August 2016. The harmonised inflation excluding energy goods reached 1.5% and 1.2% in the EU and the Euro area respectively in August, compared to price growth of 0.8% and 0.9% respectively in August 2016. Overall in 2017, inflation is expected to reach 1.8% and 1.6% in the EU and in Euro area respectively. In August, the highest inflation was observed in Lithuania with 4.6%, followed by Estonia with 4.2%, Latvia with 3.2% and the UK with 2.9%, due to the devaluation of the pound, while low inflation was recorded in Ireland with 0.4%, Cyprus with 0.5% and Greece with 0.6%.

Employment, based on labour force data from Eurostat, increased at marginally stronger year-on-year rate in the second quarter of 2017 in the EU and in the Euro area, by 1.4% and 1.3% respectively, against 1.2% rise in both regions in the first quarter of 2017 and 1.6% and 1.8% in the second quarter of 2016. For 2017 overall, the European Commission projected in its spring forecasts an increase of 0.9% and 1.2% respectively in the two regions, weaker than in 2016.

Figure 2.2

Euro area – Contribution to real GDP growth (in percentage terms)



Source: Eurostat

Stronger employment growth in the second quarter of 2017 occurred in Luxembourg (4.3%), Romania (4.3%) and Slovenia (3.8%), while contraction of employment was observed in Denmark (-1.2%), Latvia (-1.0%), Lithuania (-0.8%) and Estonia (-0.6%).

Unemployment fell to 7.7% in the second quarter of 2017, compared to 8.0% in the first quarter, while fall of unemployment was also recorded in the Euro area, to 9.2%, from 9.5%. For 2017 overall, the unemployment rate is projected at 8.0% (EC, May) and 9.2% (IMF, October) in the two regions respectively, against 8.6% and 10.0% respectively last year. In the second quarter of the year, the highest unemployment rate was recorded in Greece, at 21.6%, followed by Spain with 17.3%, Cyprus with 11.3% and Italy with 11.2%. In contrast, the lowest unemployment was recorded in the Czech Republic with 3.1% and Germany with 3.8%.

Despite the progress with the indicators, there are two major challenges in the labour market in the Euro area, as highlighted in recent reports by international organisations. First, while unemployment is steadily declining, the growth rate of wages substantially lags behind, inter alia because of the weakening growth rate of labour productivity, but also because of demographic changes in the composition of the labour force.[6] In addition, part-time employment has increased significantly in several Member States, reducing unemployment, even though it often is not voluntary,

The **fiscal performance** improved in both regions, as the general government deficit declined in 2016, to 1.7% in the EU and 1.5% and the Euro area, while in the current year the deficits are expected to subside to 1.6% in the EU and 1.5% in the Euro area. The countries with the highest deficit last year were Spain (-4.5%) and France (-3.4%), while the highest surpluses were recorded in Luxembourg (1.6%), Malta (1.0%) and Sweden (0.9%). Public debt also improved in the EU and the Euro area in 2016, to 85.1% and 91.3% of GDP respectively, while further reduction is projected for 2017. Despite the progress, public debt remains very high in many countries, while the positive economic situation is an opportunity for improvement of the fiscal balance.

As to the **monetary policy framework**, the European Central Bank continues to pursue loose monetary policy through very low interest rates and unconventional quantitative easing (QE) tools. The current bond purchase programme, with a monthly volume of €60 billion, expires at the end of 2017. The ECB is expected to take decisions in late October as to its extension for next year. While the markets anticipate that interest rates are going to remain at the same low levels for at least

[6] "Recent wage dynamics in advanced economies: drivers and implications", World Economic Outlook, Chapter 2, IMF, October 2017

the following year, the ECB has three choices as to the future of the QE programme: the first is to decide to discontinue the programme at the end of the year, the second is to extend its duration and the third is to the extend its duration, but with reduced monthly purchase volume. The third option seems to prevail, as it goes along with the stance of a number of ECB members in relation, on the one hand, to the proper management of the growth acceleration of Eurozone economies and, on the other, to the resistance of the general price level to grow with an annual rate close to the target of 2%. At the same time, international organisations, such as the IMF, point out that this attitude of the ECB is constructive and that it is not appropriate to shift towards a tighter policy now, given the resistance of current prices, the sustained low inflation expectations and the varying trends in economic activity in the Member States.

The economy in Europe, and particularly in the Euro area, is facing a series of challenges for the policy makers:

- Slowdown of the growth of labour productivity and investment gap, especially in areas such as infrastructure and education
- Risks for the banking system: very high rate of non-performing loans in some countries, with implications for the liquidity in the European economy and for investment
- Need of deepening of the monetary union and strengthening of its institutions
- Need of sound fiscal management for members with a high level of public debt that have the opportunity to exercise counter-cyclical policy
- Need to mitigate macroeconomic imbalances within the Euro area, as when member countries are either systematically in deficit, or systematically with significant surpluses, this complicates the joint management of adverse shocks
- Demographic trend of an ageing population with an impact on the sustainability of the social security system in many member states
- Refugee flows and possibilities of integration in the economic activity
- Political developments and successive election cycles. Although the results of recent elections in Austria, Germany, France and Netherlands alleviate the uncertainty that dominated the scene earlier, they reveal a steady and significant percentage of scepticism as to the monetary union among the voters
- The Brexit negotiations seem to weigh more on the British economy and less on the Euro area for the

time being, but is a source of uncertainty for both economies

- Geopolitical tensions in the region are affecting, inter alia, investment and consumer confidence

2.2 The economic environment in Greece

A) Economic climate

The IOBE economic sentiment surveys offer significant indications on the developments of the economy in the past few months, from the perspective of both the enterprises and the consumers. In addition, the results of the surveys constitute leading indicators for various economic magnitudes and can be used to predict near-term developments and even the course of GDP. In detail:

The economic climate indicator strengthened both quarter on quarter and year on year in the third quarter of 2017. The recovery of the index throughout 2017 is compatible with the growth rate of the economy. Its strengthening in recent months is consistent with the expectation that the growth rate will accelerate, at least in the third quarter of the year. Although the indicator still moves below the levels recorded in the rest of Europe, its improvement is remarkable. It primarily reflects the easing of the uncertainty about the implementation of the economic policy programme, and to some extent the steadily strengthening activity in export-oriented sectors such as Manufacturing and Tourism. Regarding the households, it is important that no new fiscal measures emerged for 2018 from the recently completed review. That said, there are tax and other charges from last year's fiscal interventions. Recovery expectations seem to form across all economic units of the Greek economy, albeit at a lower rate than the initial forecasts.

In detail:

The Economic Climate Index in Greece increased quarter on quarter in the third quarter of 2017, standing on average at 99.3 (from 94) points, at a higher level than the average from the same quarter of 2016 (92.1 points on average).

In Europe, the index increased quarter on quarter in the quarter under examination, both in the EU and in the Euro area. In particular, the climate index averaged 112.1 (from 110) points in the Euro area and 112.4 (from 110.6) points in the EU in the third quarter of 2017.

At sector level, the business expectations in Greece significantly improved quarter on quarter in the third quarter of the year in all sectors except Retail Trade, where they worsened. On the demand side, the quarterly average of the very weak consumer confidence increased. Compared to the same quarter of last year, the index increased again in all sectors but Retail Trade, with consumer confidence strengthening as well. In detail:

The **Consumer Confidence Index** in Greece averaged -57.4 points in the third quarter of 2017 (from -70.2 in the second quarter), higher year on year as well (from -68.4 points). At country level, the Greeks maintained their top rank on the European pessimism scale. The corresponding average European index improved quarter on quarter in the quarter under review in the Euro area (-1.5 from -2.7 points) and in the EU (-2.1 from -3 points). The index improved year on year in both regions (-8.3 and -7.3 points respectively in the Eurozone and the EU).

The individual components that make up the overall indicator improved quarter on quarter. The expectations of the Greek consumers for the financial situation of their households in the next 12 months and the corresponding expectations for the country's economic situation strengthened, as was the case with the unemployment expectations, and the intention to save.

In particular, in the third quarter of the year, the percentage of those who were pessimistic about their household's economic situation over the next 12 months fell to an average of 62% (from 73%), with 20% (from 23%) considering once more that it would remain unchanged. Furthermore, the percentage of Greek consumers with gloomy expectations about the country's economic situation declined to 68% (from 81%), with 20% (from 12%) believing that it would not change. Concerning the intention to save, the percentage of households considering unlikely that they would do any savings over the next 12 months declined to 88% (from 93%). Meanwhile, 62% (from 74%) believed that unemployment would deteriorate, with 10% (from 7%) on average holding the opposite opinion. The percentage of consumers responding that they were "running into debt" remained at 15-16% in the third quarter of 2017, a slightly higher level than in the same quarter of last year (14%), while 10% of the respondents said they were saving little or a lot (from 7%). Finally, the percentage of those who declared they were " just about managing to make ends meet on their income" fell to 60% (from 63%), while the percentage of households reporting that they were " drawing on their savings" stood at 14% (from 12% in the third quarter of 2016).

The Business Climate Indicator in **Industry** stood at 93.9 points in the third quarter of the year (from 91.1 in the preceding quarter), higher than last year's performance (91.2 points). In the key activity indicators, the forecast for short-term output change deteriorated in the examined quarter (+13, from +19 points on average), while the estimates for the level of orders and demand strengthened (to -14 from -27 points). The assessment of the stock of finished products remained stable (at +12 the relative index), while the trends in the export indicators were mixed. The export expectations over the following quarter weakened, while the current assessment of the exports in the sector and the assessment of foreign orders and demand improved. The quarterly balance of employment expectations remained unchanged at +6 points on average. The production capacity utilisation rate increased slightly to 71% (from 69%), while the months of guaranteed production of the enterprises remained on average at four.

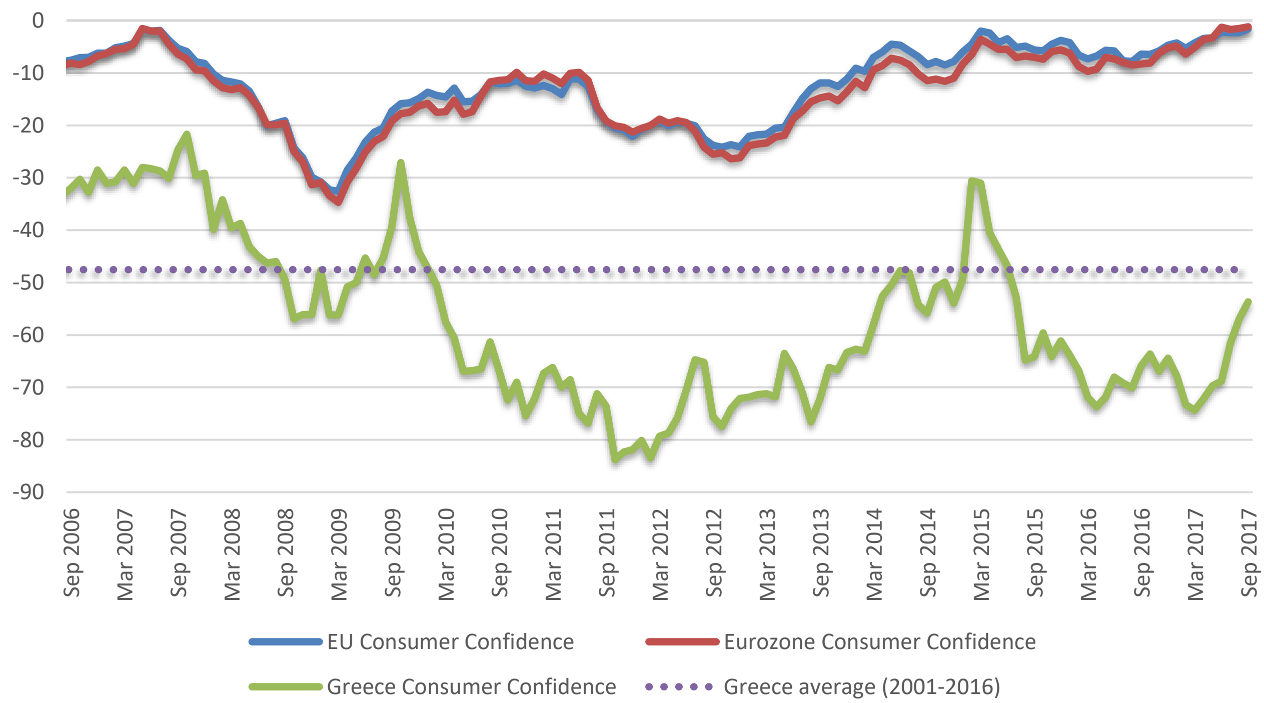
The Business Climate Indicator in **Retail Trade** declined quarter on quarter in the third quarter, to 85.3 (from 92.7) points, lower than last year's level (98.6). Among the key components of the indicator, the average balance of the current sales assessment decreased to -12 (from -6) points. About 30% (from 33%) of the enterprises reported their sales to have risen, with 42% (from 40%) declaring the opposite. The projected sales indicator declined by 13 points to zeros, while the assessment of inventories increased (to +6 from 0 points). Regarding the remaining activity data, the change in the balance of expectations for orders to suppliers is negative (-9 from +8 points on average per quarter), while the sector short-term employment forecast halved to +11 points. Finally, the balance of price expectations declined to -1 from +3 points in the current quarter, with 9% (from 5%) of the companies expressing expectations of a decline in prices and 84% (from 86%) predicting price stability. The third quarter of the year saw a decline in all examined subsectors, except for Textiles-Clothing-Footwear and Motor Vehicles-Spare Parts, where the indicators remained unchanged.

The business expectations in **Construction** strengthened in the third quarter of 2017, with the balance standing at 59 (out of 42.9) on average, higher year on year as well (43.9). Among the key components of the indicator, the employment expectations in the sector gained ground, as the index reached -39 (from -51) points and 44% (from 60%) of the companies expecting fewer jobs. The expectations of the businesses about their activity level became less pessimistic (at -49 from -67 points), while the assessment of their current level of activity also strengthened. The months of activity accounted for by work in hand in the sector totalled 7.8 (from 7.2). The negative balance of price expectations expanded by 8 points to -29, with 34% (from 28%) of the companies expecting a decrease in the short-term and 5% (from 7%) a new increase. Finally, the percentage of companies reporting that they were not facing any obstacles to the proper functioning of their business varied around 12% (from 8%), while among the remaining businesses, 35% selected as the major obstacle low demand, 38% insufficient funding and 11% factors such as the country's general economic situation, the capital controls, high taxes, lack of projects, and late payment by the state. At the subsector level, the increase in overall business confidence in the examined quarter stemmed both from Private Construction (to 66.3 from 55.3 points on average) and from Public Works (to 54.7 from 33.7 points).

In **Services**, the average Business Climate Indicator increased quarter on quarter in the third quarter of 2017 to 93.2 (from 86.5) points, higher than in the same period of last year (79.3). Among the key components, the assessment of current demand gained ground, with the relative index estimated at +17 (from +4 points) on average. An increase was also recorded in the assessment of the current level of business activity (+23 from +7 on average), while the short-term demand expectations of the businesses in the sector deteriorated (+9 from +13). Regarding the remaining activity indicators, the employment expectations of the respondents remained unchanged (at +2 points on average), and so did the price expectations, which remained at -1 point on average. Finally, the percentage of respondents reporting a seamless business operation increased to 32% (from 22), with 26% declaring as the major barrier to their operation demand deficiency, 18% working capital shortages and 21% other factors related to the general economic situation and the crisis, the capital control, lack of access to finance, high taxation, arrears etc. The indicators improved quarter on quarter in the third quarter in all examined subsectors of Services.

Figure 2.3

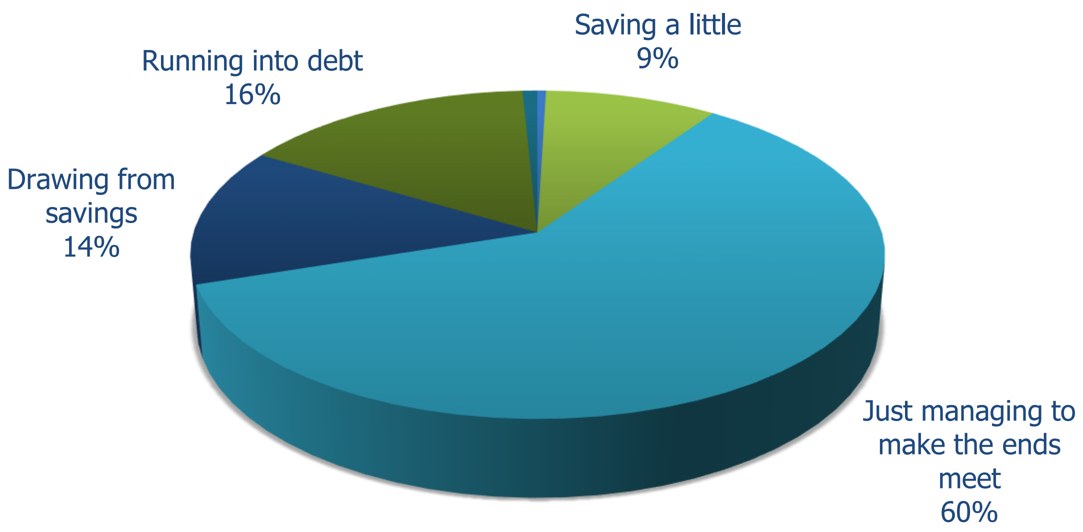
Economic Sentiment Indicators: EU, Euro area and Greece, (1990-2016=100, seasonally adjusted data)



Source: European Commission, DG ECFIN

Figure 2.4

Consumer Survey data on the financial situation of their household's, *(July – September average 2017)*



Source: IOBE

Table 2.6

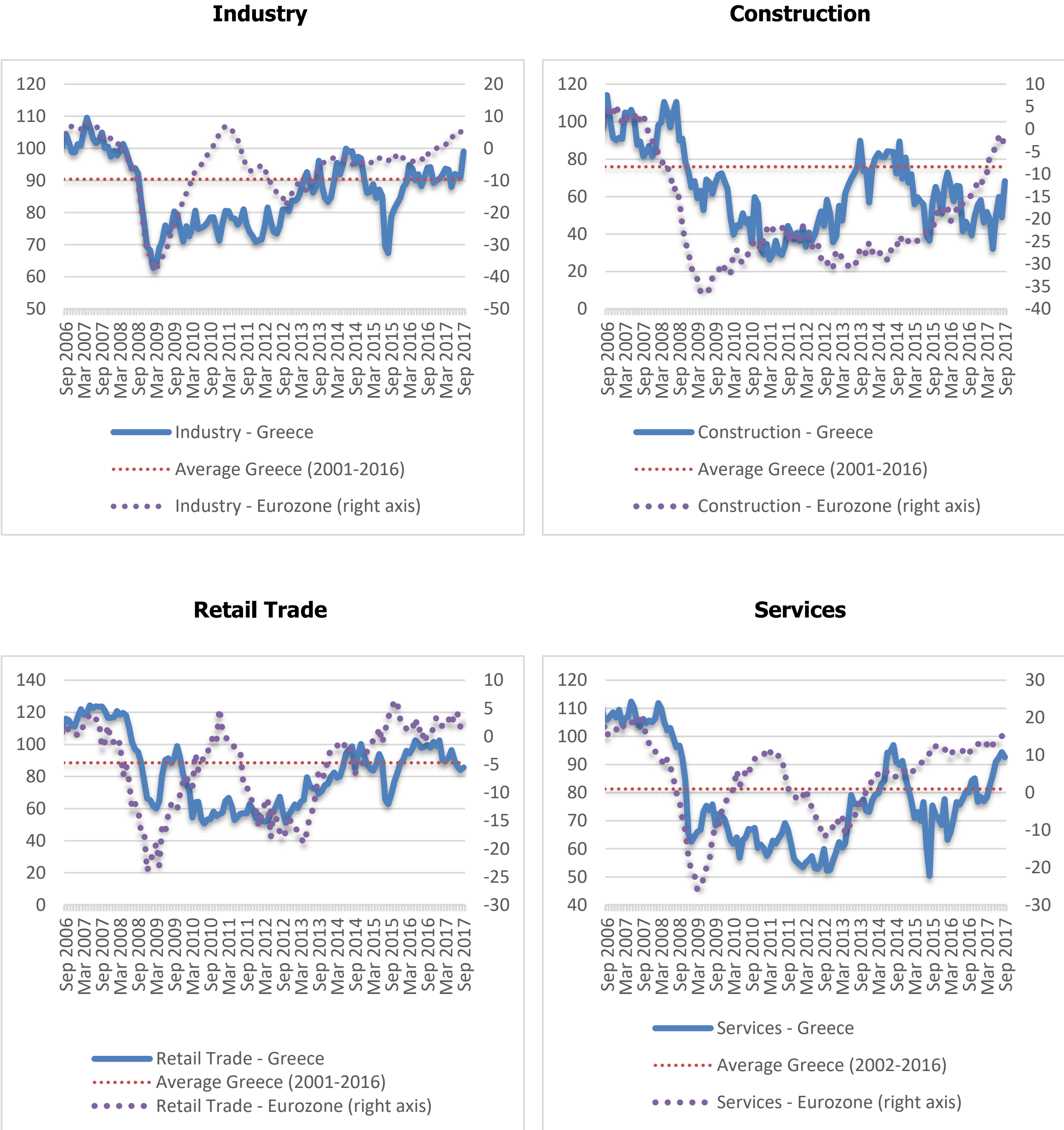
Economic Sentiment Indicators

Time period	Economic Sentiment Indicator[1]			Business Climate Index[2] (Greece)				Consumer Confidence Index[1] (Greece)
	EU	Euro area	Greece	Industry	Construction	Retail Trade	Services	
2002	97.3	96.8	102.0	101.2	114.0	93.3	82.8	-27.5
2003	95.4	95.4	100.1	97.9	115.0	102.0	85.5	-39.4
2004	103.3	101.6	104.8	99.1	81.5	104.8	94.6	-25.8
2005	100.8	100.5	98.1	92.6	63.0	96.8	93.6	-33.8
2006	108.3	108.3	104.9	101.5	91.1	110.8	103.7	-33.3
2007	111.0	110.6	108.4	102.8	92.5	120.8	106.6	-28.5
2008	93.3	94.3	97.4	91.9	95.2	102.5	97.8	-46.0
2009	79.3	80.2	79.7	72.1	65.5	80.4	70.1	-45.7
2010	101.2	101.6	79.3	76.2	45.2	59.5	62.9	-63.4
2011	100.3	102.4	77.6	76.9	34.2	58.9	61.7	-74.1
2012	90.9	90.6	80.0	77.2	43.2	57.1	54.8	-74.8
2013	95.7	93.8	90.4	87.8	65.0	70.2	70.4	-69.3
2014	105.1	101.6	99.3	94.6	81.5	89.1	87.2	-55.0
2015	106.2	104.2	89.4	81.9	56.4	81.0	70.6	-50.7
2016	105.9	104.9	91.3	91.3	55.7	98.0	76.1	-68.0
Q1 2016	105.5	104.0	90.2	90.7	68.0	93.6	69.0	-67.5
Q2 2016	105.5	104.3	89.9	91.9	62.9	100.2	74.3	-71.2
Q3 2016	104.7	104.3	91.6	91.1	43.9	98.6	79.3	-68.4
Q4 2016	107.8	106.9	93.6	91.2	48.1	99.5	82.0	-65.0
Q1 2017	108.9	107.9	93.8	92.0	52.0	94.1	77.9	-71.8
Q2 2017	111.3	111.1	94.0	92.0	49.1	90.0	90.9	-68.8
Q3 2017	112.4	112.1	99.3	93.9	59.0	85.3	93.2	-57.4

Sources: European Commission, DG ECFIN, IOBE

Figure 2.5

Business Climate Index



Source: IOBE

B) Fiscal developments in the first eight months of 2017

The initial examination of the data on the execution of State Budget[7] (SB) for the first eight months of this year points to positive results. The SB deficit is lower by €701 million, while the primary surplus is higher by €746 million, against their respective targets. However, the detailed examination of the course and the structure of SB revenue and expenditure reveals some uncertainties.

In particular, the revenue of the 2017 Ordinary Budget (OB) have been boosted by one-off receipts, amounting to €1,234 million from the concession of regional airports, compared with only €58 million in 2016. If the above amount is not taken into account, then the revenues in the first eight months of 2017 are lower compared to 2016, despite the fiscal measures taken to enhance[8] revenue in the summer of 2016 and January 2017. Moreover, the macroeconomic developments since the beginning of this year have been conducive so far to higher revenues. It was therefore expected that the 2017 revenues before tax receipts would be higher than in 2016.

In addition, the significant OB expenditure restraint (-4.4%) in relation to 2016, as presented in the Budget Execution Bulletin, came mainly from a change in the accounting of called guarantee payments.[9] If the necessary adjustments are made, the year-on-year expenditure restraint falls to 0.8%. At the same time, the arrears of the public sector (including tax refunds) increased by €1,267 million until August, compared to the end of December 2016, while the award or finalisation of several thousand main and supplementary pensions is still pending.

Finally, the execution of the Public Investment Programme (PIP) presents greater delay than in any other year. In particular, payments for investments are down by 27.1%, compared to 2016, while on an annual basis they are expected to increase by 7.3%. However, the PIP revenues and especially the proceeds from the EU Funds are very limited, not only against 2016 (-47.4%), but also in relation to 2015 (-43.6%). Already, in accordance with the updated estimates from the Finance Ministry, these revenues are projected to lag behind by about half a billion on an annual basis. Note that

[7] State Budget Monthly Execution Bulletins, January – August 2016 and 2017.

[8] An increase of the advance payment of income tax in 2016 was the only measure of 2016 that negatively affected the revenue of 2017. The lower than initially projected incomes also led this result, according to the 2018 State Draft Budget. See also footnote 14.

[9] Until 2016, called guarantees of general government bodies were recorded on a "net basis", while from 2017 they are registered on a "gross basis". Hence, the expenditure in the first eight months of 2016 rose by €1,192 million, while in 2017 it is projected to increase by at most €200 million. Currently, there is no data on this expenditure on a net basis for the first eight months of 2017.

under the current circumstances, the proceeds from the EU improve not only the budget deficit, but also the liquidity in the Greek economy.

Overall, the implementation of the State Budget in the first eight months of the year meets the targets for the SB deficit and primary surplus. That said, note that this result has been achieved thanks to the clearly higher tax burden, one-off non-tax revenue and lower investment expenditure. Indeed, further tax raises do not seem to yield the expected revenue. Indicatively, the arrears of taxpayers increased since the end of December 2016 and until July 2017 by €7,483 million, while total arrears now stand at about €97 billion. In summary, the high levels of taxation are considered to pose obstacles to recovery and undermine the international competitiveness of the Greek economy.[10]

The execution of the State Budget this year will largely depend on the results in the last quarter, when substantial revenue is expected to be collected, but there will also be great pressure for higher spending (e.g. grants to hospitals, public sector arrears, 76.6% of the PIP expenditure, new pensions, etc.).

SB deficit and primary surplus

The State Budget deficit was capped at €1,271 million in the first eight months, against a deficit target of €1,972 million. [11] The deficit was also lower year on year, by €219 million. Similarly, the SB primary surplus stood at €3,544 million, compared with a primary surplus target of €2,798 million, exceeding the primary surplus of 2016 by €233 million (Table 2.7).

The better performance against the targets came exclusively from the restraint of the primary OB expenditure against the target by €1,702 million, of which €519 million concern PIP payments. In contrast, the SB net revenues were lower than the target by €1,748 million, mainly from the Ordinary Budget, as analysed below, which is of a temporary nature according to the announcement of the Ministry of Finance that accompanies the State Budget Execution Bulletin. It also comes from higher tax refunds, which exceeded the revised target by €469 million.

[10] According to the latest Competitiveness Report by the World Economic Forum, Greece ranks 136th in taxation terms, out of 137 countries. i.e. it is second from the bottom.

[11] Note that in table 2.7 the deficits of 2016 and 2017 are not fully comparable with each other. In particular, the called guarantees are recorded on a net basis in the first eight months of 2016 (as in 2015), while the 2017 they are recorded on a gross basis, due to lack of monthly data. Under this approach, the 2017 deficit on an annual basis, will be larger by €207 million. If the 2016 called guarantees are recorded on a gross basis, then the 2016 deficit at the end of the year, would be larger by €1,227 million. That is, the error would be 6 times larger. That's why the lesser of the two errors was chosen. Thus, the data for the first eight months of 2015 and 2016, as well as all annual data, are reported on a net basis, while the numbers for the first eight months of 2017 are provided on a gross basis. See also footnote 9.

Table 2.7
2017 State Budget Execution

	January-August			% change		**2014**	**2015**	**2016**	**Budget**	% change		
	2015[4]	**2016**	**2017**	2016/15	2017/16				**2017**	2015/14	2016/15	2017Π/16
I. SB REVENUES (1+2)	**30,765**	**32,047**	**31,433**	**4.2**	**-1.9**	**51,367**	**51,421**	**54,038**	**54,411**	**0.1**	**5.1**	**0.7**
1. OB net revenues	28,699	29,980	30,242	4.5	0.9	46,650	46,589	49,860	50,256	-0.1	7.0	0.8
Revenues before tax refunds [1]	30,470	31,886	32,807	4.6	2.9	50,020	49,510	53,124	53,545	-1.0	7.3	0.8
Minus tax refunds	*1,772*	*1,907*	*2,565*	7.6	*34.5*	*3,370*	*2,922*	*3,263*	*3,289*	*-13.3*	*11.7*	*0.8*
2. PIP Revenues	2,067	2,067	1,190	0.0	-42.4	4,717	4,832	4,178	4,155	2.4	-13.5	-0.6
of which: EU funds	*1,792*	*1,921*	*1,011*	7.2	*-47.4*	*4,649*	*3,900*	*3,861*	*3,975*	*-16.1*	*-1.0*	*3.0*
II. SB Expenditure (3+4)	**31,869**	**33,537**	**32,703**	5.2	**-3.0**	**55,063**	**54,951**	**55,179**	**56,079**	**-0.2**	**0.4**	**1.6**
3. OB expenses	30,306	31,365	31,121	3.5	-0.8	48,472	48,545	48,891	49,329	0.2	0.7	0.9
Primary expenses [2,3]	25,404	26,564	26,305	4.6	-1.0	42,902	42,744	43,314	43,779	-0.4	1.3	1.1
Interest	4,902	4,801	4,815	-2.1	0.3	5,569	5,800	5,577	5,550	4.1	-3.8	-0.5
4. PIP Expenses	1,563	2,172	1,583	39.0	-27.1	6,592	6,406	6,288	6,750	-2.8	-1.8	7.3
III. SB Balance (I-II)	**-1,104**	**-1,490**	**-1,271**			**-3,696**	**-3,530**	**-1,140**	**-1,668**			
% of GDP	*-0.6*	*0.9*	*-0.7*			*-2.1*	*-2*	*-0.7*	*-0.9*			
OB Balance	-1,607	-1,385	-873			-1,822	-1,956	970	927			
PIP Balance	504	-105	-394			-1,875	-1,574	-2,110	-2,595			
IV. SB Primary Balance	**3,797**	**3,311**	**3,544**			**1,873**	**2,270**	**4,437**	**3,882**			
% of GDP	*2.2*	*1.9*	*2.0*			*1.1*	*1.3*	*2.5*	*2.1*			
GDP (current prices)	175,697	175,888	181,204			177,941	175,697	175,888	181,204	-1.3	0.1	

[1] The proceeds from the granting of licences and public rights are also included.
[2] Includes called guarantees, military procurement, EFSF disbursement fees and transfers to assume debt of General Government bodies.
[3] The called guarantees were recorded in net terms for all months and years, apart from January – August 2017.
[4] Includes revenues of €555 million from the Financial Stability Fund, €191 million from the granting of licences, €284 million for the settlement of (one-week and 100-installments) arrears and other revenues.
Source: State Budget Monthly Execution Bulletins, August 2016 and August 2017, Ministry of Finance, final data

OB Revenues

In the examined period, the OB revenues before tax refunds increased by 2.9% compared to 2016, reaching €32.8 billion. However, the 2017 revenues include one-off receipts of €1,234 million, from the concession of the regional airports, while in the same period of last year the corresponding receipts totalled only €58 million (Table 2.8). If the one-off receipts are not taken into account, the 2017 revenues are lower by 0.8% year on year.

Recall that in the summer of 2016, a series of tax measures were legislated, with the main measure the hike in the standard VAT rate from 23% to 24%, which had a positive base effect in the first half of 2017 as well.[12] In addition, further tax measures came into force in January 2017. As a result of this and combined with the favourable macroeconomic developments from a return to economic growth in 2017, as well as from the intensification of tax audits, the OB revenues were expected to move up in the current year.

The revenue from direct taxes decreased by 7.4% year on year in the first eight months of the year, to €10.9 billion. The largest year-on-year decline was recorded in the receipts from property taxes (-28.1%). It came, first, from the fact that two instalments of the unified property tax (ENFIA) were collected in early 2016, compared with only one in January 2017, and second from the fact that the receipts of the January 2017 instalment were much lower year on year, as 38% of the ENFIA tax were paid in September 2016 in one instalment. The receipts from the personal income tax increased slightly, by 0.7%, compared to 2016, yet they fell short of the target by €469 million, as many taxpayers did not pay the first instalment in July. In addition, the receipts from the corporate income tax declined by 12.8% year on year, falling below the target by €118 million, as the large increase of the tax advance in 2016 had a negative impact on the 2017 figures.[13] The revenues from direct taxes of previous years increased significantly, by 13.1%, due to the intensification of the efforts to collect the arrears to the State. Finally, the revenue from other direct taxes declined by 28.3%, as since 1 January 2017 the insurance contributions of civil servants are accounted as revenues of the insurance fund EFKA and not as OB revenue (Table 2.8).

The receipts of indirect taxation benefitted from a number of factors, as analysed below. As a result, they increased by 5.2% year on year in the first eight months, at €17.1 billion.

In particular, the VAT receipts increased by 6.2% to reach €10,436 million. However, this total includes one-off VAT receipts of €296.2 million, from the concession of the

[12] The increase of the advance payment of income tax in 2016 was the only 2016 measure with a negative impact on 2017 revenue.

[13] The increase of the tax advance ensures additional one-off receipts only during the first year of its implementation, as in the following year these receipts are settled against the actual tax bill.

regional airports.[14] Without these revenues, the growth rate falls to 3.2%.

Table 2.8

State Budget Revenue (million €)

Revenue categories	January-August			% change	
	2015	2016	2017	2016/15	2017/16
1. SB Net Revenues (2+4)	**30,765**	**32,047**	**31,433**	**4.2**	**-1.9**
2. OB net revenues	**28,699**	**29,980**	**30,242**	**4.5**	**0.9**
Tax refunds	1,772	1,907	2,565	7.6	34.5
3. OB revenue	**30,470**	**31,886**	**32,807**	**4.6**	**2.9**
Direct taxes	11,527	11,773	10,900	2.1	-7.4
--Income tax	7,348	7,511	7,312	2.2	-2.6
--Property tax	1,083	1,180	848	9.0	-28.1
--Direct taxes of previous years	1,361	1,278	1,445	-6.1	13.1
--Other direct taxes	1,735	1,805	1,294	4.0	-28.3
Indirect taxes	14,642	16,245	17,094	10.9	5.2
--Transaction taxes	9,098	10,132	10,795	11.4	6.5
(of which VAT)	(8,768)	(9,824)	(10,436)	(12.0)	(6.2)
--Consumption taxes	4,960	5,303	5,306	6.9	0.1
--Indirect taxes of previous years	377	584	752	54.9	28.8
--Other indirect taxes	207	226	241	9.2	6.6
Non-tax revenues	4,302	3,868	4,812	-10.1	24.4
--Receipts from the EU	76	266	253	250.0	-4.9
--Non-ordinary revenue	1,490	675	595	-54.7	-11.9
(of which: ANFA, SMP)	(291)	(375)	(345)	(28.9)	(-8.0)
--Permits and rights	212	58	970	-72.6	1,572.4
--Other	2,524	2,869	2,994	13.7	4.4
4. PIP revenues	**2,067**	**2,067**	**1,190**	**0.0**	**-42.4**

Source: State Budget Monthly Execution Bulletin, August 2016 and August 2017, Ministry of Finance, final data.

Note also that the VAT receipts were positively affected by a variety of other factors, such as: (a) increase of the main VAT rate from 23% to 24% in June 2016, creating a positive "base effect" in the first five months of 2017; (b) increase of existing and levy of new excise duties from 1/1/2017, which are included in the VAT tax base; (c) increase of private consumption at nominal prices by 2.3% in the first half of 2017; (d) intensification of tax audits in the summer months; (e) intensification of the use of electronic means of payment; (f) elimination of reduced VAT rates in some of the Aegean Islands. Considering all the above, the increase of revenues by 3.2% is not considered satisfactory.

In January 2017, the excise duties on fuel and tobacco increased, while new excise duties were imposed on coffee and fixed

[14] Out of the total amount of €1,234 million, €296.2 were accounted as VAT receipts and the remaining €937.8 million as revenues from the concession of rights.

telephone. Nevertheless, the receipts from the excise duties remained largely unchanged year on year in the first eight months of 2017. Among the constituent categories, the receipts from the excise duty on fuels increased by 8.4% year on year. In contrast, non-tax revenues increased by 24.4% year on year, due to the collection of €937.8 million from the concession of regional airports. If the revenues from permits and rights are deducted from the totals of each year, the growth rate falls to 0.8%.

From the above, it follows that the positive course of OB revenues (before tax refunds) in the first eight months of this year came from one-off revenues from the concession of the airports and from revenue of previous years, both from direct and indirect taxes[15], which are not linked to current economic developments. If the revenues from previous year taxes and the airport concession are deducted from both periods, then the OB revenues in 2017 record a 2.2% decrease year on year. However, as almost half of the revenue is scheduled to be collected in the final quarter of the year, a complete picture of their trend would only be formed towards its end.

OB expenditure

In the examined period, the Ordinary Budget expenditure decreased slightly, by 0.8% year on year, to €31.1 billion. Compared with the target, payments were down by €1,183 million.[16] The restraint is located solely in primary expenditure (-1.0%), as interest payments marginally increased by 0.3% (Table 2.9).

Among the primary expenditure categories, salaries and pensions decreased by 33.1% year on year, since the entry for pensions was almost brought to zero, as the pensions of the public servants have been paid by EFKA since the beginning of the year. Yet, wages expenditure increased by 2.3%. If the wage growth becomes permanent, this would be a cause for serious concern.

Social expenditure increased by 48.9% year on year, due to the additional grants to EFKA (+53.1%), for the payment of public servant pensions. Overall, the grants to EFKA from the OB reached €9,864 million in the first eight months. In addition, the social protection expenditure increased by 25.8%, due to the payment of €296 million for the Social Solidarity Income, with the abolition of the extraordinary support to address the "humanitarian crisis", which stood at €152 million in the corresponding period of 2016.

The operating and other expenditure increased slightly, by 0.9%, year on year. The subcategory "other expenditure" declined by 11.4% year on year. This came from a reduction of the grants to hospitals by 32.4% and the reduction of the

[15] Total revenues from previous year taxes stood at €1,862 million in the first eight months of 2016, reaching €2,197 million in 2017.

[16] For the target slippage, see the Press Release of the Ministry of Finance of 25th September 2017, as the expenditure targets are not published in the Monthly Bulletin.

expenditure for debt assumption of GG bodies by 65.3% (Table 2.9).

As in 2015 and 2016, a significant pressure to increase the OB expenditure is expected to emerge in the last four months of the year. This will at least limit the expenditure restraint from the preceding period and might result in overall growth.

Public Investment Programme

The PIP execution in the first eight months is characterised by a very large and unjustified delay. Furthermore, the annual revenue forecast in the Medium Term Fiscal Strategy 2018-2021 (MTFS) was revised down, to €561 million, even though initially, in the 2017 Budget, 95.9% of the funds were projected to come from the European Union.

In particular, the PIP revenues in the first eight months of the year declined to €1,190 million, lower year on year by 42.4% (Table 2.7). Correspondingly, the receipts from EU funds declined by 47.4% year on year and by 43.6% against 2015, to the very low total of €1,011 million.

Table 2.9

State Budget expenditure (€ million)

Expenditure category	**January – April**			**% change**	
	2015	**2016**	**2017**	**2016/15**	**2017/16**
1. State Budget Expenditure	**31,869**	**33,538**	**32,703**	**5.2**	**-2.5**
2. Ordinary Budget Expenditure	**30,306**	**31,366**	**31,120**	**3.5**	**-0.8**
Interest	4,902	4,801	4,815	-2.1	0.3
Primary expenditure	25,404	26,564	26,305	4.6	-1.0
--Salaries & pensions	12,237	12,020	8,039	-1.8	-33.1
Wages	7,835	7,634	7,807	-2.6	2.3
Other allowances	162	168	151	3.7	-10.1
Pensions	4,241	4,218	81	-0.5	-98.1
--Social expenditure	7,778	7,939	11,818	2.1	48.9
Grants to Social Security Funds	7,109	7,026	10,755	-1.2	53.1
Social protection	406	569	716	40.1	25.8
Grants to OAED	240	315	315	31.3	0.0
Other	23	29	32	26.1	10.3
--Operational and other	3,917	4,741	4,784	21.0	0.9
Transfers	587	788	853	34.2	8.2
Consumption	533	669	684	25.5	2.2
Conditional	1,568	1,465	1,636	-6.6	11.7
Other*	1,229	1,819	1,611	48.0	-11.4
Of which: debt assumption	(--)	(553)	(192)	-	-65.3
--Earmarked revenue	1,472	1,864	1,664	26.6	-10.7
3. PIP expenditures	**1,563**	**2,172**	**1,583**	**39.0**	**-27.1**

Source: State Budget Monthly Execution Bulletin, August 2016 and August 2017, Ministry of Finance, final data.

* Includes transfers to cover deficits and arrears of hospitals, military procurement, EFSF disbursement fee and called guarantees and debt assumption.

As a result of this development, the estimate on the PIP annual revenues in the MTFS 2018-2021 were revised to €3,617 million, €561 million lower than in 2017 Budget forecast. Furthermore, the revised estimate of the MTFS (p. 50) of the receipts from the EU funds, the main source of revenue for the PIP, was cut to €3,437 million, €538 million lower than the initial forecast.

The PIP expenditure also declined in the first eight months, by 27.1% year on year, to €1,583 million, almost as in the same period of 2015, when the public sector had huge cash difficulties. For the investment expenditure to reach its annual target in the budget (€6,750 million), €5,167 million should be paid in the last four months of the year. Therefore, it is quite likely that the investment expenditure will decline, as in 2016, when the delay in the PIP execution was significantly less pronounced.

To sum up, the execution of the PIP cannot be considered satisfactory. Apart from the unquestionable need for investment to improve the growth prospects of the Greek economy, the inflow from EU funds help to reinforce the current liquidity in the economy. For these reasons, the -albeit temporary- loss of half a billion euros of EU funds should be avoided.

The 2018 Draft Budget

a) Newer estimates for the year 2017

According to the 2018 Draft State Budget, published on October 2, the primary surplus of GG in 2017, as measured under the Greek Loan Facility (GLF), was projected to improve further, to €3,977 million, or 2.2% of GDP, compared with €3,445 million set the MTFS in May 2017. Similarly, improvement was also envisaged in the primary surplus, as calculated based on the European System of Accounts (ESA) 2010 (Table 2.10).

The annual result of General Government in national accounting basis improved, despite the fact that the fiscal results at the level of the State Budget in modified cash basis deteriorated.

Table 2.10

GG Primary Surplus Estimates (2018 Draft State Budget)

	2017			**2018**
	Initial targets	**MTFS**	**Draft Budget**	**Draft Budget**
GLF	3,164	3,445	3,977	6,671
% GDP	1.75	1.9	2.2	3.57
ESA 2010	4,480	3,814	4,288	7,493
% GDP	2.5	2.1	2.4	4.0

Source: 2018 Draft State Budget, Ministry of Finance, October 2017

In particular, the improvement is estimated to come not from the SB, but from the balance of the social security funds, which in national accounting basis is expected to improve by €1,319 million or 0.7% of GDP, compared with the corresponding estimates of the MTFS 2018-2021. The estimates for the other institutions do not differ substantially from the MTFS.

Regarding the State budget, the 2017 deficit, in modified cash basis, is projected to reach €2,770 million (1.5% of GDP), compared with the previous forecast for a deficit of €1,313 million. (0.7% of GDP) in the 2018-2021 MTFS. Respectively, the 2017 primary surplus in modified cash basis was revised down, to €2,880 million (1.6% of GDP), compared to prior MTFS forecast for a surplus of €4,337 million (2.4% of GDP).

The deterioration of the SB balance came from net income shortage by €2,050 million in relation to the estimates of the MTFS 2018-2021. By contrast, spending is projected to be lower by €593 million in relation to the MTFS estimates. Part of the SB revenue shortage concerns the PIP (€190 million) and is associated exclusively with less inflow from EU funds. Note that compared with the initial estimate in the 2017 budget, the PIP revenue lag will reach €993 million.

b) 2018 budget

There are two main points in the 2018 Draft Budget. Firstly, the 2018 budget is based on a likely, yet optimistic macroeconomic scenario. In particular, the economy is projected to grow at 2.4% at constant prices, with private consumption and fixed capital investment expanding by 1.4% and 12.6% respectively. Both exports and imports are expected to increase compared with 2017, at a similar pace, by 4.7% and 4.4% respectively. The change of the HICP is estimated at 1.1% and employment growth at 1.7%. Second, there is a large improvement in the General Government primary surplus, coming from the social security funds.

Regarding public finances, the GG primary surplus, as calculated for the needs of the GLF, is projected to increase to €6,671 million in 2018, or 3.57% of GDP, in order to meet the contractual obligations of the country for primary surplus of 3.5 percent of GDP under the third programme (Table 2.10). As in 2017, the very large improvement compared to the previous year comes from the Social Security Funds (SSFs).

In particular, the SSFs are projected to have surplus of €1,516 million in 2018, against a €378 million surplus in 2017. The SSF balance for 2018 is higher compared with the MTFS forecasts as well, by €1,341 million, or 0.7% of GDP. **Cumulatively, the SSF balance is higher than the 2018-2021 MTFS projections by €2,660 million.** The balance of the remaining General Government bodies did not change significantly, with the exception of local authorities, whose account deteriorated by €229 million against the MTFS projections.

The primary surplus of the 2018 State Budget in modified cash basis is estimated to be marginally lower than in the MTFS (MTFS: 2.6% of GDP, Draft Budget: 2.4% of GDP). By contrast, the estimate for the SB deficit remains at 0.6% of GDP, as in the MTFS. The SB net revenues and expenses were revised down by €580 million and €497 million respectively.

Particularly for the PIP, the 2018 spending remained at €6,750 million in 2018, as in 2017, while the revenues are projected at €3,735 million, slightly higher than last year.

3. PERFORMANCE AND OUTLOOK

3.1 Macroeconomic Developments

Recent macroeconomic developments in Greece

The GDP of the Greek economy remained on the rise for the second consecutive quarter in the second quarter, with a slightly higher rate than in the previous quarter (0.8% against 0.4%), while in the corresponding quarter of 2016 it had contracted by 0.5%. As a result, **overall in the first half of this year, the gross domestic product was higher by 0.6% year on year,** offsetting the fall of similar extent recorded in the same period of 2016, resulting in a return to the level from the first half of 2015 (€92.6 billion). Considering that the domestic GDP stood at €92-92.3 billion in the half of 2013 and 2014 as well, the Greek economy is virtually stagnant during this time of the year over the past four years. The slight acceleration of GDP growth in the second quarter came primarily from the strong expansion of exports, which exceeded the rise in imports, leading to an improvement in the external balance of the Greek economy. Public consumption and household consumption expenditure of households, whose growth slowed quarter on quarter, followed in terms of contribution to growth in the second quarter of this year. In contrast, the strong decline in investment, mainly due to the change in the year-on-year trend of stocks, strongly hampered the expansion of GDP.

In detail as to the trends in individual components of GDP in the first half of 2017, **domestic consumption was 1.1% higher compared to the same period of last year, when it had fallen by the same rate**. Growth in both of its basic components, especially in private consumption, at 1.0% and secondarily in public sector consumption, which did not exceed 0.7%, contributed to its expansion. However, public consumption had declined by 2.5% a year earlier, while the reduction of household consumption was weaker (-0.6%).

Investment marginally strengthened year on year in the first half of this year, by 0.6%, due solely to their growth in the first quarter, by 19.6%. In the same half of 2016, the investment expenditure strengthened by 24.8%, due to the expansion of inventories (+€978 million). Most (75%) of the strong contraction in the second quarter of this year, which reached 17.1%, came from a move in the opposite direction compared with last year, as the trend in stocks changed sign from positive to negative. The reduction of fixed capital formation in this period did not exceed 4.6%. In addition, investment in fixed capital expanded by 2.7% overall in the first half of this year, just as in the same period of last year.

Among particular categories of fixed capital, **transport equipment contributed**

almost exclusively to the mild increase of fixed capital formation, as investment in means of transport expanded by 155% in first quarter of 2017, which determined their strong upward trend overall in the first half of the year (+57.0%, compared to +3.8% a year earlier). Subsequently, investment in the specific category remained on the rise during the first half for the fourth consecutive year, more years than any other category of fixed capital. Investment in machinery and equipment had a small contribution to the expansion of fixed capital formation, as a result of a slight rise in the second quarter, by almost 1%, which formed the average growth in the first half of this year at 0.3%, a change which compensated for their corresponding, marginal fall in 2016 (-0.1%). From the remaining categories of fixed capital, where the trend was negative in the first half of the year, the decline was sharpest in other products (-48.7%, from +0.4%), information technology and communication equipment (-10.4%, in continuation to -4.4% a year ago) and other construction (-9.3%, after 13.9% growth). Housing construction, which for four years had reported the sharpest downturn, declined further by 8.1%, albeit notably less than in the previous year (-20.2%). The smallest investment contraction occurred in agricultural products, as it did not exceed 2.7%, yet it was stronger than in the same period of last year (-1.4%).

With regard to the external sector, exports expanded by 7.4% overall in the first half of 2017, against a fall by 10.3% in the corresponding period of last year. Their growth strengthened in the second quarter, reaching 9.5%. This increase came, as throughout the first half, mainly from the strengthening of the international demand for services from Greece (+11.5%). However, the increase of the exports of goods, which remained notably higher than the exports of services in absolute terms, was also high (+8.8%). On average in the first half of this year, the exports of services strengthened by 9.6%, while a year ago they had retreated extensively (-23.1%). However, as mentioned in previous reports of IOBE on the Greek economy, the sharp decline in the exports of services in the first half of 2016 came from the impact of the capital controls, which were not present in the same period of 2015, yet since the 3rd quarter, they hampered export activity. Their negative impact technically expired one year from their implementation. The exports of goods increased by 6.8% in the first half of the current year, quite a bit stronger than a year earlier (+2.9%). An alternative evaluation of the level of export activity could be done by comparing it with that of the corresponding period of 2015, when no capital controls were in place. Following this approach, the exports in the first six months of the year were 3.7% lower than in the same period two years earlier.

The weakening of the consumer demand growth and the trend change in fixed capital formation to negative in the second quarter was reflected in the much lower quarter on quarter increase of **imports** (3.1% versus 11.7%). Overall in the first half of 2017, imports increased year on year by 7.3%, more than offsetting their decline a year ago by 6.2%. The growth of the imports of services was more than double than that of goods, 13.5% against 6.3%, albeit after their strong decline in the first half of 2016, by 31.2%, when the imports of goods increased marginally, by 0.9%. As the latter constituted in that period the 84.3% of total imports, their contribution to this year's increase was much higher than that of imports of services, forming predominantly the trend of the import flows. **Despite the marginally higher growth of exports compared with imports, as the absolute size of the latter is persistently larger, the balance of the external sector in national accounting terms worsened, by 7.0%, or €210 million, and stood at €3.2 billion or 3.5% of GDP.**

On the supply side, the domestic gross value added increased by 0.6% year on year in the first six months of this year, more than offsetting its fall by 0.5% then. At the level of sectoral trends, the number of sectors with year-on-year output growth, namely four, equalled the number of sectors with year-on-year decline, while in two sectors output essentially did not change. In particular, the strongest year-on-year increase in production in the first half of this year took place in Industry, by 6.8%, compared to much weaker growth last year, by 1.9%. The rise was strong in both quarters, by at least 5.7%, pointing to the stability of this trend. Arts-Entertainment-Recreation followed with a growth of much weaker intensity, 2.1%, lower than the corresponding increase in the same sector one year ago, by 2.7%. Wholesale – Retail Trade, Transport – Storage, Hotels – Restaurants and Real Estate were the other two sectors with output growth, by 1.8% and 0.2% respectively, compared with a 2.2% contraction and 0.2% growth respectively a year ago.

In contrast, the Construction sector experienced the sharpest downturn in activity of around 16.3%, a decline much greater than its growth last year, by 4.9%, who it reported the highest output growth among the key sectors of the Greek economy. Although the decline slowed in the second quarter, it reached a two-digit rate (11.2%). Financial-Insurance Activities came next, with a 5.6% contraction, continuing the downward trend from the corresponding period of the previous year (-3.3%). In Information-Communication output was lower by 1.8% than last year, when it had remained relatively stable (+0.1%). Output in Public Administration – Defence – Compulsory Social Security declined at a similar rate (-1.2%), in contrast once more with output stability in the first half of 2016 (-0.2%). Only in Professional-Scientific-Technical-Administrative Activities and the Primary Sector, the value added of production stood virtually at the same level as a year ago in the first half of the year, as in first sector it declined marginally (-0.3%) and in the second it did not change.

The marginal acceleration of GDP growth in the second quarter of this year, due to a rise of activity in specific sectors, was reflected in their employment and, as a result, unemployment, which slid further to 21.1%, reached its lowest rate in five and a half years, two percentage points lower year on year. Overall in the first half of 2017, the unemployment rate stood at 22.2%, 1.8 percentage points of lower compared to the same period of 2016. The decline in unemployment came by 80% from employment growth and by 20% from labour force contraction.

At the sector level, most jobs in the first six months of the current year were created in Wholesale – Retail Trade (+19,800 or + 3.0%) and in Accommodation - Food Services (+11,900 or + 3.6%), due mainly to strong growth in both sectors in the second quarter. Employment in Manufacturing steadily strengthened between January and June this year, by more than 10,000 jobs (+3.0%). Employment in Public Administration – Defence – Compulsory Social Insurance mildly increased, by 4,500 on average (+1.4%), due solely to growth in the first quarter. The decline of employment in Agriculture-Forestry-Fishing in the second quarter (-4,300 or -0.9% on average in H1), Real Estate (-2,100 or -33.6%) and Construction (-1,800 or -1.2%) hampered a greater decline in unemployment. With regard to the price developments, the inflationary trends from the first quarter carried over to the next, with the average rate of change of the Consumer Price Index remaining essentially unchanged (1.3% from 1.4%). As a result, the mean change in the CPI in the first six months of the current year stood at +1.3%, against 0.9% deflation in the same period of last year. However, note the slowdown of inflation in the second quarter, from 1.6% to 1.0%, despite an increase of certain indirect taxes (motor diesel and LPG, tobacco, cigarettes) and the imposition of new taxes (fixed telephony, coffee) from 1 January, a trend that continued in the third quarter, as evident from the analysis of the medium-term outlook in the next subsection.

The continued rise in prices in the second quarter came from changes in indirect taxes, as mentioned earlier, and, to a lesser extent, from higher oil prices, for which the year on year change declined. The effect of these factors is reflected in differences of the price change across categories of goods and services included in the CPI. With the exception of the category Food – Non-Alcoholic Beverages, where the rise of prices was marginal (+0.3%), the other categories with price growth were affected by the above developments. The highest price growth rates was recorded in «Transportation», «Alcoholic Beverages – Tobacco» and «Housing» (6.8%, 6.7% and 3.2% respectively). Hotels – Cafés – Restaurants and Communications came next, with +2.0% and + 1.8% respectively. In the remaining CPI categories of goods and services prices retreated. That said, note that Food – Non-Alcoholic Beverages, Transport and Communications recorded the greatest disinflation in the second quarter, by 2.3, 1.7 and 0.8 percentage points respectively. Therefore, even in categories with significant price growth, inflation weakened over the examined period.

In conclusion, the significance of the components of the GDP on the demand side that led to its expansion in the first half of this year shifted, temporarily perhaps, a development to be attested in the coming quarters. This possibility does not negate the importance of their recording. In particular, exports constituted the component with the largest contribution to the increase of GDP in this period. Household consumption followed with a much smaller contribution, while the expansion of public consumption was the third GDP growth driver. Along with the significant increase in exports of both goods and services, with positive effects on GDP, activity growth took place in terms of production value added, in sectors with enhanced openness, such as Industry and Tourism. Their expanded activity had a positive impact on their employment as well, leading to a decline in unemployment.

Given, first, the weak growth of household consumption in the first six months of the year, despite the decline in unemployment by around two percentage points, probably due to higher burden from indirect taxes, and second, sluggish fixed capital formation in this period, as the execution of the Public Investment Program lags behind and the credit contraction continues, albeit to a lesser extent than last year, the export performance of specific sectors is expected to become the factor with the largest contribution to the growth of the Greek economy overall in 2017.

Medium-term Outlook

The domestic politico-economic developments in the second half of this year will be influenced and determined, first and foremost, by the easing of the turmoil caused by the second review of the implementation of the third Programme of Economic Adjustment and the relatively stable economic environment which has prevailed upon its completion, secondly, by the progress with the upcoming review, in particular as regards to the possibility for additional fiscal measures in the coming years and thirdly by the outcome of the new stress test on major Greek banks. The availability of capital for businesses and households in the next year will largely depend on the developments around the last topic, as the chance of inclusion in the ECB's quantitative easing programme is limited.

The positive effects of the completion of the second review on the climate in the Greek economy are reflected in the relevant leading activity indicators, such as the Economic Climate Indicator of the European Commission, which in Greece is estimated by IOBE, and Purchasing Managers Index (PMI) of Markit. In particular, the Economic Sentiment Indicator in Greece stood at 100.6 points in September, 6.6 points higher than in June, when the second review was concluded with the Eurogroup decision of 15th June. Business confidence improved in all sectors, with the exception of Retail Trade (-4.3 points), with stronger rise in construction (+19.1 points).

Table 3.1

Trends in key macroeconomic figures – National Accounts (seasonally adjusted data, constant 2010 prices)

Quarter	GDP		Final Consumption		Investment		Exports		Imports	
	€ million	Annual rate of change	€ million	Annual rate of change	€ million	Annual rate of change	€ million	Annual rate of change	€ million	Annual rate of change
2005	**229,940**	**0.8%**	**200,682**	**3.5%**	**48,437**	**-10.6%**	**48,658**	**4.1%**	**68,724**	**2.5%**
2006	**242,771**	**5.6%**	**208,005**	**3.6%**	**59,925**	**23.7%**	**51,161**	**5.1%**	**77,785**	**13.2%**
2007	**250,468**	**3.2%**	**216,986**	**4.3%**	**64,999**	**8.5%**	**56,335**	**10.1%**	**88,871**	**14.3%**
2008	**249,871**	**-0.2%**	**221,555**	**2.1%**	**59,025**	**-9.2%**	**58,364**	**3.6%**	**89,800**	**1.0%**
2009	**239,114**	**-4.3%**	**219,966**	**-0.7%**	**43,189**	**-26.8%**	**47,725**	**-18.2%**	**71,677**	**-20.2%**
2010	**226,074**	**-5.5%**	**207,105**	**-5.8%**	**38,614**	**-10.6%**	**49,869**	**4.5%**	**69,209**	**-3.4%**
Q1 2011	53,010	-10.2%	47,826	-12.0%	9,095	-5.6%	12,454	0.0%	16,094	-12.3%
Q2 2011	52,113	-9.0%	47,568	-9.9%	8,210	-17.5%	12,559	-0.4%	16,289	-6.1%
Q3 2011	51,107	-7.5%	47,246	-6.5%	7,292	-22.3%	12,587	5.2%	16,234	-2.0%
Q4 2011	49,089	-10.0%	45,492	-8.0%	5,605	-41.9%	12,585	-2.1%	14,903	-12.0%
2011	**205,319**	**-9.2%**	**188,131**	**-9.2%**	**30,203**	**-21.8%**	**50,186**	**0.6%**	**63,520**	**-8.2%**
Q1 2012	48,517	-8.5%	45,250	-5.4%	5,456	-40.0%	12,738	2.3%	14,578	-9.4%
Q2 2012	47,735	-8.4%	43,666	-8.2%	5,940	-27.7%	12,351	-1.7%	14,231	-12.6%
Q3 2012	47,063	-7.9%	42,796	-9.4%	5,283	-27.6%	12,559	-0.2%	14,399	-11.3%
Q4 2012	46,970	-4.3%	42,254	-7.1%	6,286	12.1%	13,067	3.8%	14,340	-3.8%
2012	**190,284**	**-7.3%**	**173,966**	**-7.5%**	**22,964**	**-24.0%**	**50,716**	**1.1%**	**57,550**	**-9.4%**
Q1 2013	46,005	-5.2%	41,654	-7.9%	5,837	7.0%	12,617	-1.0%	14,148	-3.0%
Q2 2013	46,065	-3.5%	41,739	-4.4%	5,069	-14.7%	12,887	4.3%	13,759	-3.3%
Q3 2013	46,228	-1.8%	42,190	-1.4%	5,332	0.9%	13,129	4.5%	14,384	-0.1%
Q4 2013	45,942	-2.2%	42,223	-0.1%	4,459	-29.1%	12,681	-3.0%	13,266	-7.5%
2013	**184,241**	**-3.2%**	**167,806**	**-3.5%**	**20,698**	**-9.9%**	**51,314**	**1.2%**	**55,557**	**-3.5%**
Q1 2014	46,267	0.6%	42,037	0.9%	4,831	-17.2%	13,324	5.6%	14,147	0.0%
Q2 2014	46,071	0.0%	41,978	0.6%	5,373	6.0%	13,459	4.4%	14,992	9.0%
Q3 2014	46,583	0.8%	42,066	-0.3%	5,715	7.2%	14,358	9.4%	15,164	5.4%
Q4 2014	46,043	0.2%	41,960	-0.6%	5,651	26.7%	14,114	11.3%	15,472	16.6%
2014	**184,964**	**0.4%**	**168,040**	**0.1%**	**21,569**	**4.2%**	**55,255**	**7.7%**	**59,775**	**7.6%**
Q1 2015	46,318	0.1%	42,292	0.6%	4,730	-2.1%	15,002	12.6%	16,283	15.1%
Q2 2015	46,251	0.4%	42,280	0.7%	4,244	-21.0%	14,961	11.2%	15,597	4.0%
Q3 2015	45,479	-2.4%	41,057	-2.4%	4,800	-16.0%	13,251	-7.7%	13,029	-14.1%
Q4 2015	46,386	0.7%	41,971	0.0%	5,939	5.1%	13,732	-2.7%	15,050	-2.7%
2015*	**184,434**	**-0.3%**	**167,600**	**-0.3%**	**19,713**	**-8.6%**	**56,947**	**3.1%**	**59,959**	**0.3%**
Q1 2016	45,982	-0.7%	41,787	-1.2%	5,401	14.2%	13,466	-10.2%	14,630	-10.2%
Q2 2016	46,034	-0.5%	41,893	-0.9%	5,797	36.6%	13,422	-10.3%	15,270	-2.1%
Q3 2016	46,401	2.0%	42,683	4.0%	4,102	-14.5%	14,683	10.8%	14,833	13.9%
Q4 2016	45,941	-1.0%	42,203	0.6%	4,251	-28.4%	14,425	5.0%	15,583	3.5%
2016*	**184,358**	**0.0%**	**168,566**	**0.6%**	**19,552**	**-0.8%**	**55,996**	**-1.7%**	**60,316**	**0.6%**
Q1 2017	46,160	0.4%	42,223	1.0%	6,459	19.6%	14,163	5.2%	16,346	11.7%
Q2 2017	46,410	0.8%	42,378	1.2%	4,807	-17.1%	14,702	9.5%	15,741	3.1%

* Provisional data

Source: Quarterly National Accounts, September 2017, ELSTAT

In addition, the expectations index reached its highest level since September 2014 in both Industry and Services. The Consumer Confidence index, which reflects the expectations of the households, also increased strongly in the third quarter, was higher by 15.1 points in September compared to June, at -53.7 points, its highest level since August 2015.

Regarding Markit's Purchasing Managers Index (PMI) for Manufacturing, it reached 52.8 points in September, showing improvement for the fourth consecutive month, as it has risen continuously since May this year, when it stood at 49.6 points. At the same time, it recorded its strongest growth since June 2008.[17] Note that values of this index in excess of 50 points indicate growth in the manufacturing sector.

As to the possible events and developments coming soon in relation to the third review of the Economic Adjustment Programme, the Medium-Term Fiscal Strategy 2018-2021, adopted with Law no. 4472/2017, along with the prior actions for completing the second review, had identified the additional fiscal measures that would be taken in 2018. The most important of these are the following:

1) Increase of existing indirect taxes and imposing new ones, such as the increase of VAT in Northeast Aegean islands and the Dodecanese, and levy of a residence tax on hotels, rented rooms and apartments.

2) Elimination of tax deductions, such as the 10% tax discount on medical expenses if they exceed 5% of the annual personal income, and the 1.5% discount on withholding tax with the submission of tax returns of wage earners and pensioners.

3) Increase or expansion of existing direct taxes and imposition of new ones, such as higher social security contribution of the self-employed from the calculation of their contributions based on their gross earnings, the extension of the contribution of shipping companies for yet another year, the imposition of capital gains tax on property sales (i.e. on the difference between the purchase and the sale price) and the tax on income from short-term leases of immovable property.

According to the Draft of the State Budget for 2018, the above measures will raise indirect tax revenue of €552 million, while receipts will strengthen by €402 million from the interventions in direct taxation. However, despite the additional direct tax measures, the planned direct tax revenue in the Draft State Budget for 2018 is lower by €678 million from the relevant forecast in the MTFS 2018-2021. According to the Draft of the State budget for next year, the

[17] Source: https://www.markiteconomics.com/Survey/PressRelease.mvc/8ec5458cfb004ca5b2383da058be919d

downward revision is due to the impact of the smaller than initially estimated tax base, i.e. lower income of wage earners and pensioners, in 2018, as in 2017.

The deterioration of the forecasts for cash revenue from direct taxes has a negative impact on the forecast for the cash balance and the primary cash balance of the State Budget next year. Combined with certain changes in national accounting adjustments, such as the transfer of revenue of €299 million from the last instalment of the unified property tax ENFIA for the current year, from January 2018 to 2017, higher accrued interest payments by €200 million, and the expenses on actions supporting growth and social cohesion that were not provided for in the MTFS 2018-2021, this has resulted in a greater than projected in the MTFS State Budget deficit in ESA 2010 terms (-€2.7 billion, instead of -€1.9 billion), as well as a smaller primary surplus, also of the State budget in ESA terms and primary balance of the State budget in 2018. This is projected to be offset at General Government level, in order to achieve the targets of the third Economic Adjustment Programme, with a much larger than initially projected positive balance of the social security funds, by €1.35 billion. Its major improvement will come primarily through further expenditure restraint, by €833 million, from reducing pension payments and other expenses, while revenue is projected to be higher by €490 million, from an increase of social security contributions and settlement of arrears.

The change in the factors that would drive the achievement of a much larger than this year primary fiscal surplus next year is expected to be at the heart of the negotiations accompanying the third review. Besides, all the lags and burdens of the Draft State Budget for 2018, compared to the MTFS 2018-2021, are sought to be offset only by the much better result of a general government sector, namely the Social Security Funds. Perhaps, interventions in other sectors of General Government, or on the revenue and expenditure of the State Budget, are also going to be discussed and agreed, in order to alleviate the need to achieve a much larger surplus exclusively from the SSFs. In any case, it is quite possible that the discussions around the final mix of economic policy for the coming year will prolong the third review process. Therefore, this process will not concern only the 95 reforms that are prior actions to its completion.

Regardless of the impact of the new fiscal measures and changes in the economic policy mix in the third review, new burdens will come from taxes and levies. Unlike previous years, some of the upcoming measures do not concern the majority or large segments of the population and businesses. They will affect mostly specific social groups and branches, such as the residents of the Northeastern Aegean and the Dodecanese, sectors with high share of freelancers, hotels, and Real Estate activities. The burden of the new measures is expected to be stronger for freelancers and in Real Estate Activities, due to changes in pension and health contributions since the beginning of 2017 and the continuous since 2008, intense fall of building activity and real estate sales respectively.

Regarding the burden of households and businesses from the fiscal policy in the rest of this year, although it does not include new fiscal measures to those taken as part of the second review, the measures decided during the first review (reduction of the effective tax allowance, higher employer contributions, pension cuts, increases in indirect taxes and imposition of new indirect taxes, higher social security contributions for freelancers) continue to have an effect. However, the fiscal measures imposed on the income of individuals have been in place since the third quarter of 2016, therefore their effect on year-on-year changes in economic magnitudes will gradually expire from the third quarter of 2017.

Understandably, when the tranche of the loan with the European Stability Mechanism (ESM), linked to the completion of the third review, amounting to €5.5 billion, is going to be paid depends on the speed of completion of the upcoming review. Apart from covering upcoming debt obligations of the Hellenic Republic, part of this tranche is intended for the payment of accumulated arrears, which will contribute to enhancing the liquidity of businesses. Given that Greece remains outside ECB's quantitative easing programme, despite the developments at the conclusion of the second review involving medium-term measures to facilitate the servicing of the Greek debt, after the expiry of the current loan agreement (Eurogroup decision of 15 June), and the securing of additional precautionary funding by the International Monetary Fund (IMF) until the end of August 2018, it is absolutely essential to exploit every available source of liquidity, in order to continue and reinforce the GDP growth trend from the first half of 2017. This need is reinforced by the significant under-performing of the Public Investment Programme, as shown further down, and the persistent, with gaining momentum in the third quarter of this year, credit contraction by the domestic banks.

Especially on the issue of the credit supply by the domestic banking system, as pointed out in previous reports of IOBE on the Greek economy, a significant change of the trend is not expected until the effects of the sales of non-performing loans, and their settlement (new framework for out-of-court conciliation) on the capital of the banks are revealed and evaluated. The first sale of non-performing consumer loans was held recently by Eurobank, in a way that was neutral for the financial result and the statutory capital, as indicated in the relevant announcement.[18] Of course, the loan settlements will affect the property of enterprises and households

[18] https://www.eurobank.gr/Uploads/pdf/Intrum_polisi_xartofilakiou_gr.pdf

as well. If it will not substantially change, their deposits are expected to return to the banks, prompted by the general improvement of the economic expectations, following the conclusion of the second review, as presented above.

The unwinding of uncertainty reflected already in the trend of deposits of the private sector, which since May, when the latest and largest batch of prior actions for the previous review was legislated, until August (latest available data), was upward. In particular, the deposits of non-financial corporations and households increased in this period by €3.4 billion (+2.9%), reaching €119.4 billion. Their expansion came mainly from higher deposits of non-financial corporations (+€2.0 billion or +12.1%) and to a lesser extent from an increase in household deposits (+1.4 billion or +1.4%). However, despite their growth, the deposits of the private sector in August were lower by €37.3 billion from their level in November 2014, when their last major retreat had started.

The new assessment of the capital adequacy of the banks is an additional factor that impedes the availability of funds from the banking system, as predicted earlier by IOBE. This specific issue has been in the limelight over the recent period, featuring in the exchange of positions of the international creditors of the Greek State, with the International Monetary Fund stating in its press release of conditional approval of the precautionary stand-by arrangement of funding of the Greek State (20/07/2017) that the supervisory authorities of the Greek banking system should proceed to further actions to ensure its soundness and in order to facilitate the quick relaxation of the capital controls, such as an asset quality review and a stress test, before the completion of the current programme.[19] However, the conduct of the next stress test for all EU banks from the Single Supervisory Mechanism of the ECB is not scheduled to take place at this time. The so far statements of officials from the involved parties indicate that the next stress test of the Greek banks will probably take place earlier than for other EU banks, before the end of this Economic Adjustment Programme. Although at present, the period when the stress test will take place has not been determined, the exchange of views and the fact that it would take place within the next few months and certainly in the first half of 2018, is estimated to have already led the banks to take measures to preserve and enhance the quality of their assets, impeding changes in the provision of credit.

The concerns of the banking institutions regarding developments related to the sale and management of non-performing loans and the upcoming stress test, but also because of the low level of deposits, are reflected in the trend of credit supply to the private sector since the completion of

[19] http://www.imf.org/en/Publications/CR/Issues/2017/07/20/Greece-Request-for-Stand-By-Arrangement-Press-Release-Staff-Report-and-Statement-by-the-45110

the second review up to the most recent period for which data are available. Between June and August, the rate of credit contraction to the private sector (non-financial corporations and households) accelerated compared to the first five months of the year, to 6.5% from 5.0%. The cut was deeper in the credit flow to businesses, where the contraction rate increased from 2.4% to 5.0%, while to households, it increased from the already high 7.4%, to 7.9%. After the further contraction of private sector financing, its outstanding balance stood at €166.9 billion, its lowest level since October 2006, lower by €7.6 billion than in the end of 2016. The strengthening of the credit contraction probably came in part from the significant reduction of funds raised through the ECB's Emergency Liquidity Assistance (ELA) since the beginning of this year until the beginning of October, from €50.7 billion to €32.6 billion, without recording a corresponding increase of inflows of funds from another source.

Given the above, despite the completion of the second review, which ensures continued access of banks to all regular financing mechanisms and has eased the uncertainty about the strategic choices and prospects of the Greek economy, the banking institutions are expected to continue to reduce their credit supply over the rest of 2017 and in 2018, at least until the announcement of the outcome of the stress test. This development will have a negative impact on investment and household consumption.

The long-standing difficulties of drawing liquidity from the banking system have led businesses to look for other ways of funding. The large corporations, especially those that are listed on the stock markets, have sought access to capital through financial markets, in Greece and abroad, since the beginning of this year. Apart from the economic results and the outlook of each of these companies, the decline in uncertainty for the Greek state, due to the overachievement of the fiscal targets in 2016 and the progress with the second review, contributed to the improvement of these funding opportunities. It is now expected that other companies, besides those that already have used these means of access to capital, will seek to finance the operation and their investments in the same way in the coming months, utilising also the favourable environment formed as a result of the completion of the second review. If these procedures succeed, this will be the most important development of recent years in business finance, as for the first time since the start of the domestic fiscal consolidation there will be an alternative to bank lending source of capital.

The under-performance of the Public Investment Programme also exerts pressures on the availability of capital for business investment. Only €1.6 billion were disbursed in the first eight months of this year, against a target of €2.1 billion, almost €600 million less than in the same period of 2016. The amount of grants is similar to that in 2015, when the Greek Government faced an intense liquidity crunch because of political developments. The slower implementation of PIP since the start of the year comes from much smaller than a year ago inflows from the EU, which did not exceed €1.01 billion, a level which corresponds approximately to 1/2 of the inflows a year ago (€1.92 billion) and only 29.3% of the planned revenues for the whole year. The annual budget of the national financing of the PIP, which was much lower than that for 2016 (€180 million versus €317 million) has already been exhausted. However, its very small size is not sufficient to compensate for the low absorption of funding from the EU.

Given that the expenditure of the PIP budget for the current year did not change in the MTFS 2018-2021 (€6.75 billion), a sharp increase of resource inflows from the EU is needed for their implementation. As only 29.3% of the (revised downward) target of the MTFS for the entire current year (€3.44 billion) was absorbed in its first eight months, it would be very difficult to cover this gap in its four remaining months. Subsequently, it is quite possible that this year's goal for investment grants will not be met, with corresponding effects on investment activity.

The effects of the low EU funds absorption in 2017 can be offset by drawing more funds next year. Furthermore, the review of funding of the national EU cohesion policies for the years 2017 – 2020 provided additional funds to Greece, amounting to €970 million. The Investment Plan for Europe also provides funding opportunities, which have largely not been taken up in Greece so far. However, the PIP expenditure for 2018 in the Draft State Budget is no different from that of 2016 and 2017, when its total size was set at €6.75 billion. As for the reasons mentioned above, the trend of the flow of funds from the banking system to businesses is not expected to change at least in the first half of next year, the front-loaded implementation of the PIP, requiring a corresponding flow of EU funds, is necessary in order to avoid PIP expenditure cuts and to support investment as much as possible.

Weaker liquidity support to businesses this year, compared with last year, is expected from the payment of Greek State arrears to suppliers. After the €3.5 billion from two loan sub-tranches, made available for this purpose in the second half of last year, this year €800 million were received for that purpose, as part of the loan sub-tranche linked with the second review of the current Programme, which was disbursed last July. The disbursement of the last sub-tranche of €800 million, also intended exclusively for payment of arrears, is still pending. It has not been paid yet, as the payment of arrears with the funds from the previous sub-tranche has yet not reached €1.2 billion, as there is a commitment that for every euro from the loan for this purpose, the State will provide half a euro of own resources. Despite receiving €800 million, arrears widened in July, by €67 million, to €3.91 billion, while the outstanding tax refunds also increased, by €268 million, to €1.52 billion, as €255 million were provided as grants for this purpose during that month. In August, arrears declined marginally, yet the outstanding tax returns expanded by €690 million, surpassing €2.1 billion. From the beginning of 2017 until July, arrears increased by €70 million, while €418.4 million has been paid, while the outstanding tax returns widened by €315 million, with their payments not exceeding €105 million.

Considering the commitment to national participation in the financing to repay arrears from the ESM loan and the weak flow of grants for their payment by the Greek State until July, it is very likely that the last sub-tranche of €800 million will experience further significant delay. Such a development is likely to postpone subsequent sub-tranches for the settlement of State arrears, until each time the national participation funds are found. Consequently, the public sector suppliers and the tax refund beneficiaries will continue to face significant liquidity problems.

As for developments in fields other than funding and liquidity that will affect the momentum of investment activity in the second half of 2017 and in 2018, the most important privatisation actions to be carried out by the end of this year are those that were expected in the previous report of IOBE on the Greek economy, namely the sale of 66% of DESFA and 100% of ROSCO SA. The relevant developments until the completion of the drafting of the current report included the selection of two of six investment schemes that participated in the first phase of the first tender for the second phase, while the deadline for the submission of bids for the acquisition of 100% of the shares in ROSCO SA has not yet been reached (3/11/2017). Even if these tendering procedures are completed this year, the proceeds will be collected next year. Most of the revenue target set in the 2017 budget (€2.59 billion) is anticipated to be achieved from the remaining privatisation actions that were carried out (concession of 14 regional airports to Fraport, sale of 67% of the shares of the Port of Thessaloniki, extension of the concession of the Athens International Airport SA by 20 years), in conjunction with the ongoing e-auctions of real estate.

The 2018 Draft State Budget does not include the programme of privatisations and concessions for the coming year. However, as every year, this will not affect investment in the year when they take place. As noted in previous IOBE reports on the Greek economy, a gradual boost in investment activity is expected from 2018 from concessions and privatisations that were completed this year, as it takes time for the planning and licensing of the related investment projects. The investigation of the existence of archaeological sites in the concession area of Hellinikon, and the evaluation of its Integrated Development Plan and Strategic Environmental Impact Assessment Study, are good examples of the investment "maturing" process in concessions – privatisations. Possibly, the need for revisions in the proposed investments may emerge from this process, which will prolong the project preparation and will alter the business goals. In such cases, the effects of investments would occur later and their intensity will vary from those originally expected.

Regarding the external sector of the economy, the exporting enterprises appear to benefit from the stronger global trade activity in 2017 and larger than initially estimated growth in the European Union, the most significant export destination of Greek products. However, the strengthening of the demand for imports since the beginning of this year until July exceeded the growth of exports, highlighting the accumulated needs of businesses and households primarily for non-domestically produced goods as a result of the capital controls. This effect has resulted in the deterioration of the balance of goods and services for the first time since 2010.

In greater detail, based on the latest relevant data from the Bank of Greece, the exports of goods and services at current prices rose between May and July this year by 12.5%, less than that in the preceding four months (+19.2%). Their expansion during that period came equally from increased exports of goods (+€919.6 million or +14.8%) and stronger exports of services (+€939.1 million or +10.8%). Almost 70% of the rise of the exports of goods came from the rise of exports except fuel and ships, by 13.7%, in contrast with the previous period, when the growth originated from fuel exports, primarily because of rising international oil prices. The rest of the rise of exports came from fuel exports, which increased by 23.6%. Among individual categories of exports of services, travel services had the largest contribution to the overall growth (40.8%), as their proceeds expanded by 6.8%, while the contribution of transport services, which had led to the increase of exports of services in the preceding quarter of 2017, was slightly weaker (36.9%). The trend change in the revenue from international tourism from negative in the first quarter of this year, to positive in April, consolidate in the subsequent three months from May to July. However, its growth rate fluctuated, between 1.8% and 12.0%. Overall between January and July of this year, the exports of goods and services, measured at current prices, expanded by 15.5%.

On the side of imports, the percentage rise was slightly higher than that in exports between May and July (13.5%), but also less than in the previous quarter (16.0%). The year-on-year growth concerned mostly the imports of goods (+€1.31 billion or +12.7%) and to a small extent of services (+€371 million or +15.4%). As in the exports of goods, the imports of goods strengthened primarily in the category of goods except fuels and ships (58.3% of the overall growth), while in the imports of services the growth came from transport services (54.9%). Overall in the first seven months, the percentage increase of the imports of goods and services were marginally lower than that of exports (+14.9%). However, the greater absolute size of the former last year resulted in a widening of the deficit in the balance of goods by 6.3%, from €2.08 billion to €2.2 billion.

As for the trends in key figures of the world economy that affect the prospects of all national economies, the steady (with small breaks) decline in the price of Brent oil between March and June, from $56.5 was $45, was succeeded by a quarter of a continuous climb, rising up to $58.5 (25/9). The upward trend is largely seasonal thus far, as oil supply orders for the coming winter are placed at this time of the year. This interpretation is confirmed by the similar evolution of the oil price in the same period of 2016. Besides, despite its rise by about 25% since the end of June this year, the average price of Brent oil currently hovers around 8% higher than that in the corresponding period of last year. The expansion of the International Energy Forum agreement in May to reduce oil production for eight more months is not considered to have substantially affected prices, as after both the initial agreement, and its renewal, the oil price did not experience an upsurge.

However, a part of the observed increase is attributed to the faster than expected growth in the third quarter in the Euro area and the US. The upward trend in activity in these economic regions are not expected to weaken in the last quarter of this year. Moreover, according to the latest forecasts from international organisations, growth will accelerate slightly in 2018. Similar developments are anticipated in the major developing economies. Thus, if the growth of the world economy continues to strengthen mildly in late 2017 and in 2018, the observed oil price rise will persevere and strengthen, yet its sharp increase is not anticipated.

The rise in the exchange rate of the euro against the dollar has already largely eased the effects of a rise in the price of oil on the cost competitiveness of energy-intensive industries in the Euro area, and thus in Greece as well. The exchange rate will continue to act in this way in the rest of this year, probably in the next as well. Since the beginning of 2017, the exchange rate of the euro against the dollar has risen by 12.5%, from 1.04 to 1.17. The prospects of growth acceleration in the Euro area, in 2018 at least, enhance the attractiveness of the inflow of capital and business investments of any type (portfolio, direct) to the Euro area. In contrast, the concerns about the soundness of the banking system in some countries, which is going to be assessed with the next regular ECB stress test, and the impact of the Brexit process, will act in the opposite directions.

As to the latest developments in domestic economic activity and in short-term economic indicators, their growth momentum from the early 2017 eased at the start of the third quarter, with the exception of the tourist receipts. In detail, based on the latest data, the increase in industrial production did not surpass 1.7% in July. Its growth was similar to that in June and April and much weaker than in the first quarter (9.4%). The slowdown was sharper in Mining-Quarrying, where output increased by 2.5% in July, compared to 7.0% average growth in the second quarter. Manufacturing increased by 1.3%, from 2.7% in the second quarter and 5.8% in the first quarter of this year. Electricity recorded the strongest growth, by 3.8%, yet it was weaker than in the second quarter (5.5%). Output declined only in Water Supply (-4.1% in July, -5.0% in the second quarter). The latest available data on construction for July shows that, despite the slight decrease in the number of building permits, by 2.4%, the surface area and volume continued to grow, by 9.1% and 10.4%, yet considerably weaker than in the previous quarter (+30.7% and +31.2%). As already mentioned in the analysis of the latest trends in the external sector of the Greek economy, the increase of exports of services between May and July came mainly from the expansion of travel receipts, which highlights the key role of tourism in the GDP trend in the third quarter.

Regarding the indicators that reflect the sentiment on the demand side of the economy, the seasonally adjusted index of volume in retail trade increased in July by 1.4%, less than in the second quarter (2.4% on average) and overall in the first half of 2017 (2.7%).

Taking into account the above trends in economic indicators, and the anticipated developments (mainly those linked to the upcoming review of the economic adjustment programme and the domestic banking sector) for the forecasting of the GDP components and other macroeconomic indicators, the increase of **household consumption** in the first half of the year 2017 will continue in its subsequent quarters. Its slightly stronger growth in the current half is considered most likely, primarily from the significant decline in unemployment, coming from employment growth mainly in export-oriented Manufacturing branches and Tourism, as in previous half of the year, but also in Wholesale-Retail Trade, from consistently higher consumption since the beginning of the year. The impediment to a greater increase of private consumption in the first half of the year from the fiscal measures taken under the first review will subside from the third quarter. Most measures were applied from the same period of last year, so their effect on annual changes in disposable income of households will subside a year later. As noted in previous reports of IOBE for the Greek economy, the expansion of electronic payments, as individuals take advantage of the relevant income tax credit, will help strengthen the private sector consumption this year. However, **despite the stronger expansion in the second half, after its weak rise in the first, the growth of private consumption overall in 2017 will not surpass 1.2%.**

The further decline of unemployment in 2018, by an equal or slightly lower margin than in the current year, from new jobs in export-oriented sectors and Construction, combined with lower burden on the disposable income of households from the new fiscal measures, **create the conditions for their consumption to**

continue to grow, at a rate of about 1.7%.

Concerning the other strand of domestic consumption spending, the expansion of **public consumption** in the second quarter, predicted in the previous report of IOBE for the Greek economy, was confirmed by the quarterly national accounts data of ELSTAT. The forecast for higher consumption spending of the public sector in the current half stands, given that most of the tranche linked with the second review has been disbursed, while the consumer spending of the State had stayed unchanged from the preceding half in the corresponding period of 2016 and thus the basis for comparison is the same. Besides, according to the latest data on the execution of the budget at the General Government level (consolidated basis), the personnel expenses, which constitute the main component of public sector consumption, increased in July and August by 2.5% at current prices, as in the first half of this year, from €2.64 billion to €2.71 billion. However, the spending on procurement of goods and services decreased considerably during the same period, by 17.5%, from €1.35 billion to €1.12 billion. **Following the rise of public consumption spending in the second half of this year, at a rate slightly faster than in the previous half, the average increase in the whole year will reach around 1.0%.**

The fiscal consolidation will continue next year, mainly through higher revenue from direct and indirect taxes, and social security contributions, with minor new spending cuts, according to the fiscal measures in MTFS 2018-2021, included also in the 2018 draft budget, as presented at the beginning of the current section. Thus, public consumption would most likely increase slightly. In addition, according to the 2018 Draft Budget, the expenditure for salaries and pensions in the coming year will increase year on year, by 1.9%, marginally more than provided for in the MTFS 2018-2021 (1.4%). **This development is conducive to an expansion of public consumption in 2018, at a rate expected to reach about 1.5%.**

The limited supply of funds from the banking system, as the deposits return at a low rate and in order to preserve the banks' capital adequacy, with a view to the settlement of non-performing loans and the upcoming stress test of the ECB, coupled with delays in the implementation of the Public Investment Programme, which will probably result in failure to achieve the grant target for this year, will constitute the major impediments to **business investment** in the second half of this year. As stated above, the awarded privatisation and concessions are not expected to boost investment activity in the current period, as in many cases the formal completion and licensing procedures of the relevant investment projects are still pending.

That said, the investment plans that awaited the completion of the second review have passed to the stage of implementation in the current period. Besides, apart from easing the uncertainty about the strategic policy options in Greece, the completion of the review also implies that reforms improving the investment environment have been implemented (easier investment licencing, structural changes in the labour market, changes in the bankruptcy code, etc.).

The negative impact of the issues just mentioned that concern the banking system will carry over into the new year, at least until the announcement of the results of the stress test. A steady, even if not strong, stream of deposits returning to the banking system to have manifested until then is a necessary condition for the gradual change of the credit policy after this point in time. This will signal the recovery of confidence in the banking system and will probably strengthen upon the completion of the stress tests. However, the new tax hikes will prevent a notable strengthening of disposable income in large parts of the population, which would have facilitated the increase of the propensity to save. The options for the settlement of non-performing loans by the banks will also affect the intention of saving in the private sector, for both individuals and businesses. The entry of Greece to the QE programme of the ECB, which hopefully will take place following the stress test, if the programme is extended the operation in 2018, could contribute to the increase of the available funds of the banks.

In contrast, the contribution of PIP to investment activity is expected to be stronger in the new year, despite the fact that expenditure in the 2018 Draft State Budget has remained unchanged from 2017. The stronger effect will come mainly from the more upfront implementation of the PIP, following the considerable delays in the absorption of EU funds and the provision of grants. Indirect boost to investment from the State's actions will come next year from the start of investment in completed privatisation – concessions. However, it is possible that the implementation of investment is delayed or adjusted, because of issues arising during the authorisation procedures.

The remaining difficulties in finding investment and working capital, from the banking system and the PIP, can be addressed by large Greek corporations, in particular those listed on stock markets, by raising capital from financial markets in Greece and abroad. The businesses that will take advantage of these financial opportunities this year will be able to begin the implementation of their investment plans within the next year. The access of larger companies to liquidity through the capital markets will bring out over the medium term the potential to raise funding that these markets offer for small and medium-sized enterprises, e.g. through the Alternative Market, run by the Athens Stock Exchange. The continuation of successful public offerings of corporate bonds will ease the coverage of any additional capital requirement from the international capital markets, in part or fully, if such a need is established by the stress tests.

In terms of sectoral trends and developments that may affect investment activity, the expected continuation of export demand growth, with milder pace in the current than that in the previous six months, which will probably accelerate in 2018, from stronger growth in key (Eurozone) or emerging (Middle East, North Africa) export destinations of Greek exports, will boost investment activity in export-oriented branches of Manufacturing, Tourism and Transport. In Construction, the expansion of activity in Public Works from last year seems not to have carried over to this year, yet the issue of new licences shows continuous, strong recovery since the beginning of the second quarter up at least until July, partly probably because this year there were no changes in the taxation of real estate. The start of work on major construction projects in privatisation – concessions next year is expected to boost the sluggish construction activity this year.

The change of stocks is a factor expected to have a positive, possibly significant, effect on investment activity in the second half of this year. In the corresponding period of last year, they declined by €2.55 billion, their strongest annual drop since 2010. Their contraction is projected to be considerably weaker this year, affecting the investment trend. Indicatively, with fixed capital formation unchanged in the current half, a further decline of stocks, by €1.5 billion, will push investments in this period up by 21.5% than a year ago. **Taking into account these effects, investment is expected to grow by 8-9% this year, largely from the technical effect of differences in the change of stocks in the second half.**

The start of investment implementation, firstly, in privatisation – concessions, and secondly, by large firms with access to financing through the capital markets, will boost investment activity in the following year. The faster execution of PIP than in the current year will contribute to investment growth, possibly by providing more grants. The weak liquidity supply by the banking system is going to be a major impediment to a strong growth of investment. **As a result of the effect of these factors, investment will expand at a double-digit rate in 2018, in the region of 12-15%.**

In the external sector of the Greek economy, the export activity during the current half, particularly in goods, is expected to benefit from the accelerated growth in the European Union and the US. The trends in the basic categories of tradable goods mentioned above, point to a robust growth of exports except fuel and ships already since the period May - July. Regarding the exports of services, travel receipts strengthened over the same period. As the international arrivals at major airports in the country were up by 5.9% year on year in August, with a similar increase in July as well, receipts are expected to continue to grow in the third and fourth quarters. The exports of transport services have grown steadily and significantly since the beginning of 2017. That said, the appreciation of the euro against the dollar, which started earlier this year and is expected to continue for the rest of it, will restrain the growth of exports in the second half of the year. **The expansion of the exports of goods other than fuel and ships, coupled with the steady rise of international transport services and the growth of tourist services, will push total exports up by 6.5% in relation to 2016.**

The stronger growth in the EU in 2018, according to the latest reports of international organisations[20], a key export destination of Greek products, as well as in developing and emerging economies with a growing share in the Greek exports of goods (Middle East, North Africa), will contribute to their further increase in the coming year. The intensity of the export growth will depend on the trend of the euro/dollar exchange rate, which will affect developments such as the extension of the ECB quantitative easing programme and the interest rate policy of the US Federal Reserve. The continuation of conflicts in the Arab countries and the lingering flux in the Turkey-EU relations will continue to act as a deterrent to Tourism in the region and to favour international transport through Greece. **Currently, there is no significant obstacle to a further increase of exports in 2018, with our initial assessment of their growth set in the region of 6.0-7.0%.**

The slight growth acceleration of domestic consumption demand in the second half will continue to fuel the demand for imports, particularly for internationally manufactured products. That said, expansion of imports of fixed capital goods, as in the first quarter, due to imports of vehicles, is not expected in the current period. The already mentioned appreciation of the euro against the dollar, which counteracts a large part of the effect of the slightly higher year-on-year oil price on its demand, enhances the domestic purchasing power internationally. **As a result of their weaker growth in the second, compared with the first half of 2017, imports will expand by 6-6.5% overall in the current year.**

Regarding the trend in imports next year, the slightly larger increase in domestic consumption is estimated to largely concern imported products. However, the projected substantial increase in investment would not have a similar effect on imports, as a large part of it concerns construction projects. **Therefore, the demand for imports is expected once more to increase, stronger than exports.**

Summing up the forecasts for trends in key components of GDP during the second half of 2017 and next year, household consumption will continue to grow throughout this year, at a slightly higher rate than in the first half, due to the decline in unemployment, which will remain on a downward trajectory in the third quarter at least, the gradual weakening of the impact of the fiscal measures taken in July 2016

[20] World Economic Outlook, IMF, October 2017

and the expansion of electronic transactions. The expected further decline in unemployment in 2018, and the reduced pressure on the disposable income of households from the fiscal measures, implemented from the beginning of the new year, would allow private consumption to grow in the new year, at a higher rate than this year. Public consumption is predicted to expand in the second half of this year, upon the disbursement of the largest part of the loan tranche linked with the second review, a trend that is evident in the latest available cash-basis data for some of its components. The fiscal consolidation will continue next year, mainly through higher revenue from taxes and contributions, rather than new spending cuts. As a result, public consumption is most likely to increase slightly, stronger than in 2017.

The limited supply of funds from the banking system, due to the limited return of deposit to the system so far and with a view of the settlement of non-performing loans and the stress test of the ECB, in conjunction with the delays in the execution of the Public Investment Programme, will be the major obstacles to business investment in the current half of the year. That said, the investment plans that were anticipating the completion of the second review have gone into their implementation phase. The change of stocks is a technical factor that is expected to have a significant positive effect on investment activity in the second half of 2017.

The impeding effects of the settlement of non-performing loans and the upcoming stress test on the supply of credit by the banks domestically will carry over into the new year, at least until the announcement of the results of the stress test. A steady stream of deposit returning to the banking system is a necessary condition for the gradual change of the credit policy in the interim period. However, many of the large Greek companies will address the difficulty in accessing investment capital by drawing funds from the capital markets in Greece and abroad. The contribution of PIP in investment activity is expected to be stronger in 2018, mainly due to its more front-loaded implementation in relation to the current year. The start of investment in completed privatisation – concessions deals will boost investment activity as well.

In the external sector of the Greek economy, the export activity during the current half, particularly in goods, is expected to benefit from the accelerated growth in the European Union and the US. Travel receipts are expected to continue to grow in the third and fourth quarters. The exports of transport services will continue to grow throughout 2017. The stronger growth in the EU and in developing and emerging economies with a growing share in the Greek exports of goods will contribute to their further increase in the coming year. The continuation of conflicts in the Arab countries and the lingering flux in the Turkey-EU relations will continue to act as a deterrent to Tourism and to favour international transport through Greece. The slight growth acceleration of domestic consumption demand in the second half will continue to fuel the demand for imports. The growth of domestic consumption for one more year, at a slightly higher rate than in the current year, will have a corresponding effect on the imports of goods. However, the projected substantial increase in investment would not have a similar effect on imports, as a large part of it concerns construction projects. **Taking into account the above trends in factors that affect the components of GDP, the growth rate of the Greek economy in 2017 will be slightly lower than expected earlier this year, in the range of 1.3%. Its acceleration to about 2.0% or possibly slightly higher is considered quite likely.**

In the labour market, the continued growth of exports in Manufacturing branches and Tourism overall in the current year implies that most jobs created in the first half will be preserved.

Employment is most likely to expand further, at least in the third quarter. The consistently higher year on year household consumption demand will preserve most jobs created in Retail – Wholesale Trade in the second quarter of this year, excluding those coming from seasonal factors. Positive effects on employment are expected to come from the autumn from the Construction sector, following the steady, substantial growth in the issuance of new building permits during the second and the beginning of the third quarter. Changes in direct taxes and social contributions of self-employed persons will continue to impede a larger increase in employment. **Therefore, the expected effects on the labour market in the second half of this year remain mostly positive. As a result, unemployment will decline in 2017 slightly stronger than originally expected, to 21.7%.** Unemployment is expected to ease further in 2018, from a boost of employment in most sectors that contributed to its decline in the current year. The contribution of Construction to the new fall in unemployment is expected to be stronger, while the creation of jobs in Tourism will probably weaken. Enlargement of employment, especially of the permanent type, is expected to take place in the public sector. **As a result of the above sector trends, unemployment will decline next year to about 20%.**

Concluding with the **inflation** forecasts, the increases in indirect taxes, especially those on motor oil and LPG, and the new indirect taxes (fixed telephony, coffee) will continue to exert pressure until the end of 2017, for one year since their imposition. As this effect was not stable, but weakened during the first half of the year, it is estimated that in the final four months inflation will weaken compared to the first eight months of the year. The international oil prices are expected to fluctuate in the fourth quarter near their last year level, which will probably carry over to 2018, according to the latest forecasts by international organisations (IMF).

Table 3.2

Domestic Expenditure and Gross Domestic Product – European Commission estimates

(at constant 2010 market prices)

	2015	2016	2017	2018
Annual percentage changes				
GDP	-0.2	0.0	2.1	2.5
Private Consumption	-0.2	1.4	1.4	1.4
Public Consumption	0.0	-2.1	0.5	0.1
Gross Fixed Capital Formation	-0.2	0.1	6.3	10.8
Exports of Goods and Services	3.4	-2.0	3.8	4.2
Imports of Goods and Services	0.3	-0.4	3.0	3.8
Employment	0.5	1.3	1.4	1.7
Compensation of Employees per capita	-2.9	0.8	1.5	2.1
Real Unit Labour Cost	-1.2	2.0	-0.3	0.2
Harmonised Index of Consumer Prices	-1.1	0.0	1.2	1.1
Contribution to real GDP growth				
Final Domestic Demand	-0.2	0.5	1.8	2.3
Net Exports	1.0	-0.5	0.2	0.1
Inventories	-1.0	0.0	0.0	0.0
As a percentage of GDP				
General Government Balance	-5.9	0.7	-1.2	0.6
Current Account Balance	0.0	-0.5	-0.5	-0.3
General Government Gross Debt	177.4	179.0	178.8	174.6
In percentage terms				
Unemployment (% of labour force)	24.9	23.6	22.8	21.6

Source: European Economic Forecast, spring 2017, European Commission, May 2017

Table 3.3

Comparison of forecasts for selected economic indicators for the years 2016 - 2018

(at constant 2010 market prices, annual % changes)

	MinFin			EC			OECD			IMF		
	2016	*2017*	*2018*	*2016*	*2017*	*2018*	*2016*	*2017*	*2018*	*2016*	*2017*	*2018*
GDP	0.0	1.8	2.4	0.0	2.1	2.5	-0.1	1.1	2.5	0.0	1.8	2.6
Final Demand	:	:	:	-0.1	2.3	2.7	0.7	2.2	2.0	:	:	:
Private Consumption	1.4	1.1	1.4	1.4	1.4	1.4	1.4	1.7	1.5	:	:	:
Harmonised Index of Consumer Prices (%)	0.1	0.7	1.2	0.0	1.2	1.1	0.0	1.4	0.8	0.0	1.2	1.3
Gross Fixed Capital Formation	0.1	4.3	12.6	0.1	6.3	10.8	0.0	7.7	5.3	:	:	:
Unemployment (%)*	23.5	22.0	20.8	23.6	22.8	21.6	23.5	22.2	20.1	23.6	22.3	20.7
General Government Balance (% GDP)	0.7	-0.8	0.6	0.7	-1.2	0.6	0.7	-0.2	-0.2	1.0	-1.7	-1.1
Current Account Balance (% GDP)	:	:	:	-0.5	-0.5	-0.3	-0.6	-1.9	-2.3	-0.6	-0.2	-0.1
Gross Public Debt (% GDP)	177.4	180.3	176.5	179.0	178.8	174.6	179.4	174.7	170.5	181.6	180.2	184.5

* Based on the Labour Force Survey methodology

Sources: 2018 Draft State Budget, Ministry of Finance, October 2017 – European Economic Forecast, spring 2017, European Commission, May 2017 - OECD Economic Outlook No. 101, June 2017 – World Economic Outlook, IMF, October 2017 - Fiscal Monitor, IMF, October 2017

However, it is likely to rise slightly later in the year, from accelerating economic growth in the Euro area and in the emerging economies. The appreciation of the euro against the dollar has already absorbed some of the inflationary pressure of oil on consumer prices, which will continue in the following year as well. Therefore, **because of the weakening of the impact of indirect taxes and international oil prices on the CPI, inflation will slow down in the final 4 months of this year. Overall in 2017, the CPI will rise for the first time in four years, by 1.0%.** The new indirect tax rises since the beginning of 2018 (VAT in the Northeast Aegean and Dodecanese islands) and the imposition of new levies (residence tax on hotels, rented rooms and apartments), the higher year-on-year oil prices in the second quarter and the strengthening consumer demand will keep prices on the rise, at comparable rates with this year.

3.2 Developments and prospects in key areas of the economy

Industry

Industrial production in Greece increased significantly, by 5.4%, in the first eight months of 2017, compared with 2.4% growth in the same period of 2016. The stronger growth came mainly from the large increase of the index in the first quarter of 2017 (+7.7%, against 0.6% in the first quarter of 2016) and less so from the second quarter, when the index expanded year on year by 2.9% (5.1% in 2016). Industrial production in the Euro area continued to grow in the first seven months of 2017,[21] at a slightly lower rate than in the same period of 2016 (+1.3% against +1.6%).

The prices of industrial products increased during the first eight months of 2017 by 6.1%, against an 8.5% drop in 2016. The prices increased both for products sold on the Greek market (+4.7%, against -7.6% last year) and for those exported to other countries (+10.6%, against -11.4% in 2016). The rise in prices and production volume led to a strong increase in turnover, by 16.6%, in first seven months of 2017, compared with 2016, when turnover was down 12.0%. The index has recovered substantially from its lowest point, recorded in January 2016 (65 points) and is now only 4 percentage points lower compared to the reference year 2010.

Production increased in most major branches of industry in the first eight months of 2017. In particular, production in Mining and Quarrying increased by 8.6%, against a sharp drop by 18.6% last year. The corresponding indicator in Electricity generation increased by 12.6%, against 1.5% contraction a year earlier, while Manufacturing strengthened by 3.8%, against 5.2% drop in 2016. Contraction was recorded only in Water Production, where the indicator declined

[21] The August data were not available during the drafting of the report.

by 2.4%, against 0.4% growth in the previous year.

In detail, in **Mining**, production increased significantly only in Coal-Lignite, which grew by 24.9%, offsetting last year's decline by 37.4%. In contrast, contraction of production was recorded in Extraction of Crude Petroleum (-19.1%), which had doubled in 2016 (+129.1%) and as a result the indicator is still significantly higher than in previous years. The Mining of Metal Ores came next in contraction terms (-4.4% against +6.0%), followed by Other Mining, where the indicator returned close to its 2015 level (-4.3% against +4.3% in 2016).

In **Manufacturing**, production declined in the first eight months of 2017 in 14 of its 24 branches. Among the branches with special significance for the Greek economy, production increased in Basic Metals by 25.5% (against +2.7% in 2016), in Basic Pharmaceuticals by 13.4% (against +5.1% in 2016), and in Food Products by +1.7% (against +3.1% in the preceding year).

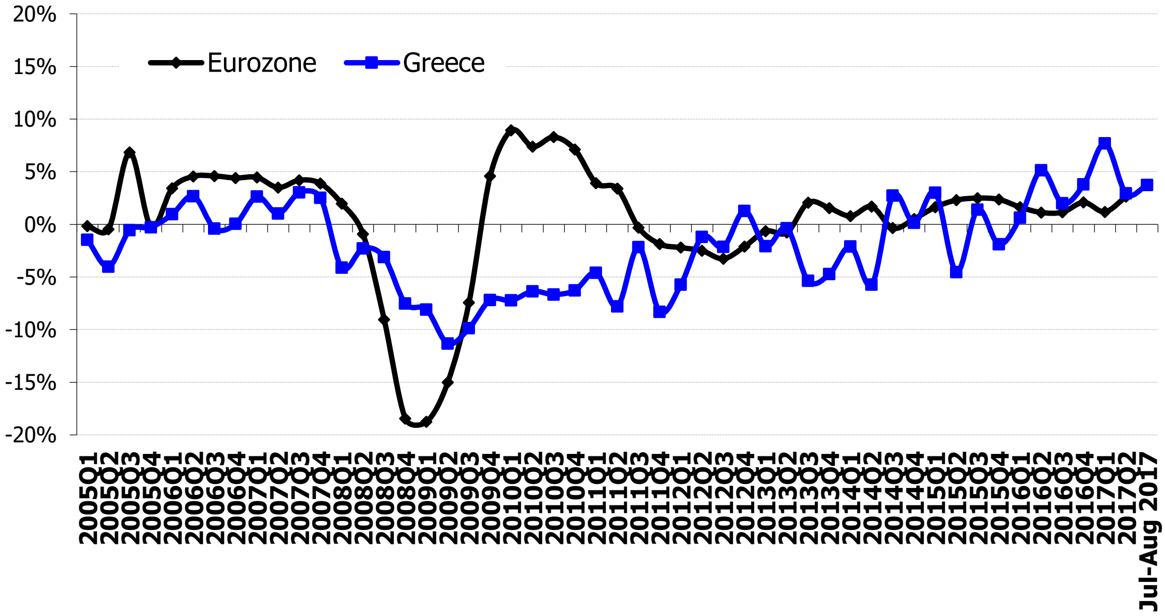
The fact that several of the manufacturing sectors with expanding production in the first eight months of last year, continue to grow in the corresponding period of 2017, with the same or higher rate, is characteristic of the trend in manufacturing.

Among the remaining branches of Manufacturing, the largest growth in the first eight months of 2017 was recorded Motor Vehicles (+59.3% against -0.6% in 2016), Computers (+11.9% against -27.5%), Metal Products (+7.2% against +6.6%), Electrical equipment (+7.0% compared to +3.0% last year), Refined Petroleum Products (+6.3%, against +10.5%) and Repair and Installation of Machinery (+4.4% against +4.0% in 2016). Production increased less in Other Manufacturing (+2.2%, against +2.0%), Plastic Products (+1.3%, against -0.6%) and Paper Products (+0.6%, against -1.8%). In contrast, the largest contraction was recorded in Tobacco Products (-17.3% against +5.7% in 2016), Other Transport Equipment (-14.0% compared to +7.1%), Printing (-13.7% against +1.7%), Clothing (-9.5%, against -9.3%), Beverages (-8.4% against +3.5%), Furniture (-4.6% against 13.4%), and Leather-Footwear (-3.5% against +14.2%).

Among the main groups of industrial products, output declined slightly only in non-durable consumer goods (-0.7%, against an increase of 4.0% in 2016). In all other main groups, output increased. In particular, in the energy sector, production increased by 9.2%, compared with no change in 2016. The production of Capital Goods strengthened by 6.7%, against a marginal growth by 0.5% a year earlier. Meanwhile, output of Intermediate Goods increased by 6.6% (against +4.7%). Lastly, the production indicator in Durable Consumer Goods expanded by 1.6%, against growth by 0.7% in the preceding year.

Figure 3.1

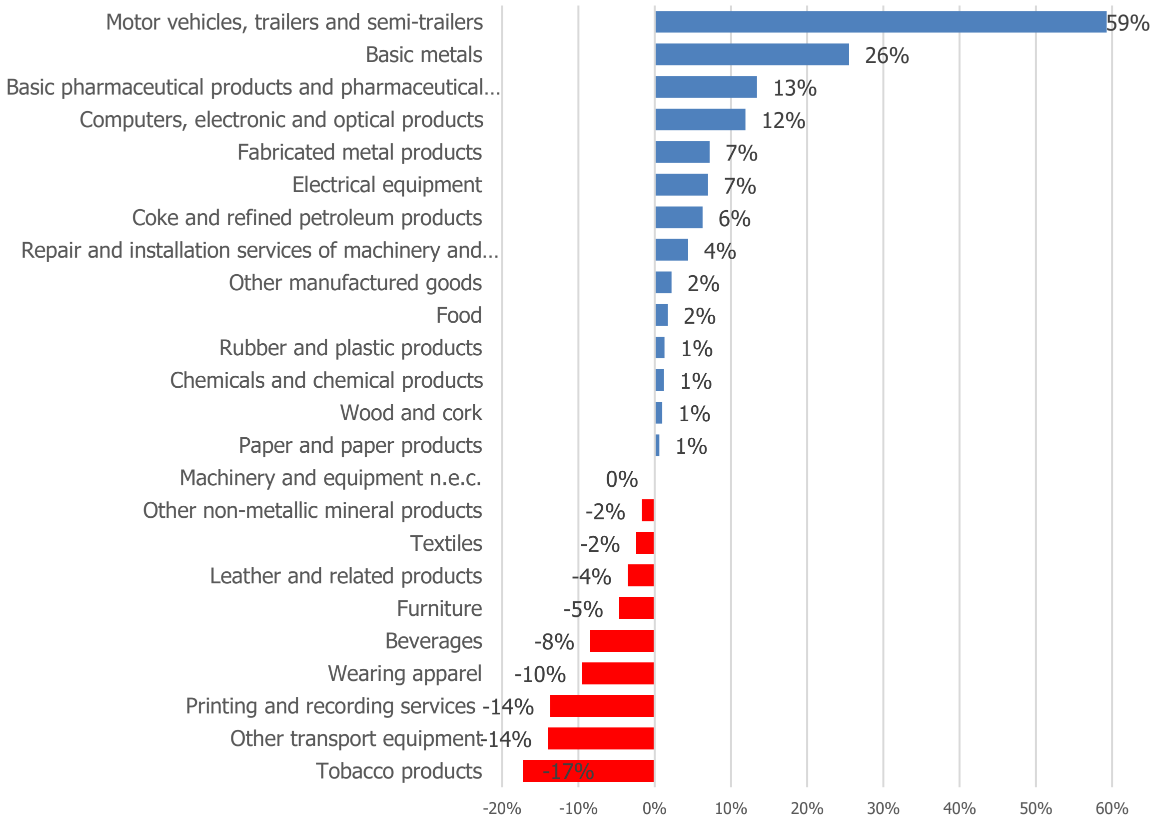
Industrial Production Index in Greece and in the Euro Area (year-on-year % change)



Sources: ELSTAT, Eurostat

Figure 3.2

Change in Industrial Production in branches of Manufacturing, January – August 2017 (annual change)



Source: ELSTAT **Data processing:** IOBE

Construction

In the first half of 2017, the production index in Construction increased by 4.3% in the aftermath of similar growth in the first half of 2016 (+4.1%). The growth of the index came exclusively from its strong expansion in the first quarter (10.5%), as in the second quarter it marginally declined, by 0.3%, compared with growth by 14.7% in the corresponding quarter of 2016.

In the sub-indices, the Construction of Buildings declined by 3.3%, following an increase by 5.3% in the same period of last year, while in contrast, the production index in Civil Engineering increased stronger than last year (+10.7% against +3.1%). However, the monthly data on building activity from the same source as the production index in Construction (ELSTAT) indicates that the number of permits increased by 11.5% year on year in the first seven months of this year, compared with a similar contraction by 10.5% in the same period of last year. Strong growth was recorded both in the surface (+22.7%, against -14.6%) and in the volume of new buildings (+8.4%, against -14.3% last year).

Retail Trade

In the first seven months of 2017, the volume index in retail trade grew by 2.4%, against a decline by 3.6% in the corresponding period of 2016.

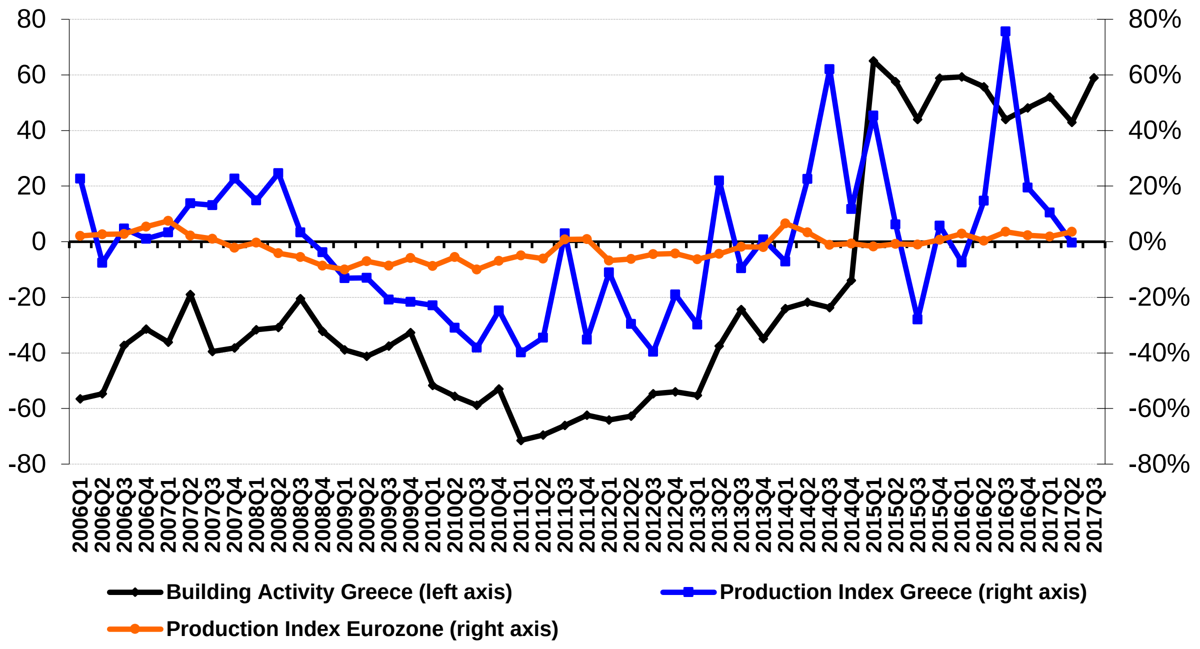
Turnover increased in six of the eight branches of Retail Trade. The strongest growth was recorded in Books-Stationery (+10.1%, against -5.6% a year ago), Furniture –Electrical Equipment - Household Appliances (+5.4%, against -7.0% in 2016) and Clothing-Footwear (+4.2% against +5.5%). Supermarkets came next (+2.8% against -2.6%), followed by Pharmaceuticals-Cosmetics (+1.3% against losses by 3.6%) and Department Stores, where the index increased at a significantly lower rate (+0.9% against +5.6%). In contrast, the largest decline was recorded in Food-Beverages (-3.0% against +3.2%) and Fuel - Car Lubricants (-2.0%, against -5.6%).

The sentiment in the retail sector deteriorated in the first nine months of 2017, according to **the leading indicators of the Business Surveys conducted by IOBE**. The index for total retail trade fell by 6.8 points, against an increase of 16.9 points in the corresponding period of 2016. The expectations deteriorated in three of the five subsectors, with the indicator falling sharply, returning in some case to the levels recorded two years ago.

The pessimism intensified most in Food-Beverages (-31.3, against +32.9 last year), Department Stores (-11.2, against +19.9 points) and Household Appliances (-3.8, against +19.8 in 2016). In contrast, the representatives of Clothing–Footwear appeared less pessimistic, as the index increased by 17 points, following an increase of 10 points a year ago.

Figure 3.3

Production Index in Construction and Building Activity Index

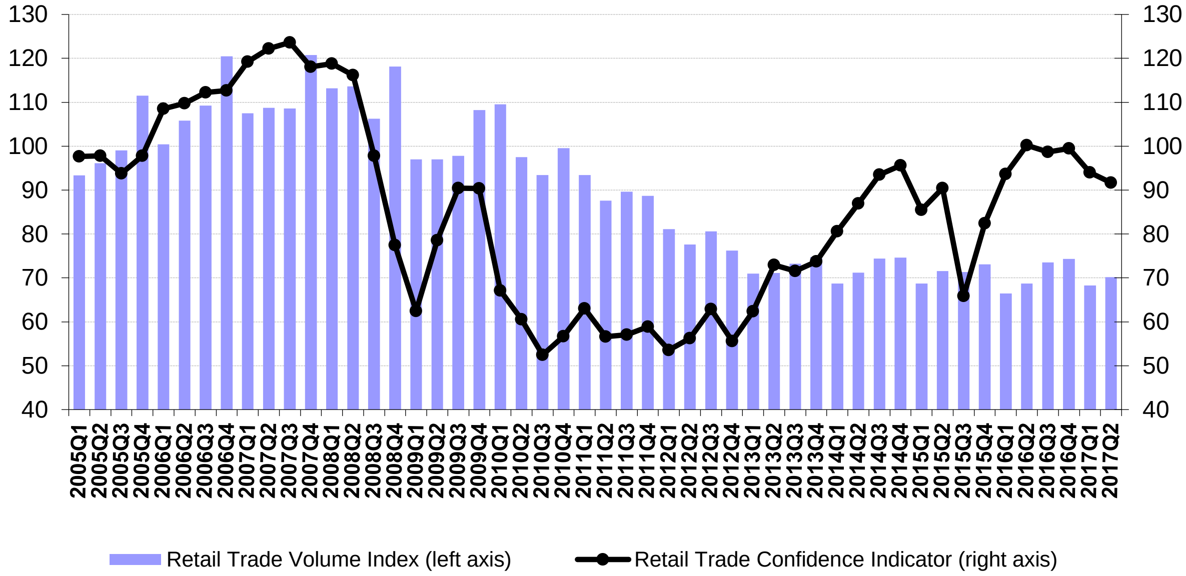


Source: ELSTAT, Business and Consumer Surveys IOBE

The Business Climate Indicator for Motor Vehicles increased by 8 points in the first nine months, compared with 2.9 points growth in the same period of last year. In the third quarter, the index stood at 102.1 points, from 95.0 points in the same quarter of 2016. Yet, it declined quarter on quarter (from 112.9 points in the second quarter of 2017). Among the constituent elements of the index, the current sales balance stood at 12 points in the third quarter, from 7 points in 2016, as the share of enterprises that reported an increase in sales expanded. The balance of inventories stood at 4 points, while the share of enterprises considering their stock to be at normal levels increased to 90%. The sales prospects over the coming quarter strengthened significantly, as the index on future sales was boosted by the rise in the share of enterprises expecting growth of sales, with a corresponding decline in the share of enterprises anticipating reduced sales. The order book balance improved, albeit remaining at negative levels, as the share of enterprises expecting growth of orders increased. The employment expectations weakened, as the number of businesses anticipating employment growth declined, with 86% of the enterprises expecting no change in employment.

Figure 3.4

Volume Index in Retail Trade (2010=100) and Business Sentiment Indicator in Retail Trade (1996-2006=100)



Source: IOBE

Table 3.4

Annual Changes in the Volume Index in Retail Trade

Category of Retail Trade Stores	Volume Index (2010=100)				
	Jan-July 2015	**Jan-July 2016**	**Jan-July 2017**	**Change 2016/2015**	**Change Jan. '17/'16**
Overall Index	71.2	68.6	70.3	-3.6%	2.4%
Overall Index (excluding automotive fuels and lubricants)	72.9	70.9	72.7	-2.7%	2.5%
Store Categories					
Supermarkets	79.8	77.7	79.9	-2.6%	2.8%
Department Stores	79.8	84.3	85.1	5.6%	0.9%
Automotive Fuels	67.0	63.2	61.9	-5.6%	-2.0%
Food – Drink – Tobacco	65.4	63.3	61.4	-3.2%	-3.0%
Pharmaceuticals – Cosmetics	67.4	65.0	65.9	-3.6%	1.3%
Clothing – Footwear	71.7	75.6	78.8	5.5%	4.2%
Furniture – Electric Equipment – H. Appliances	62.8	58.4	61.6	-7.0%	5.4%
Books – Stationary	95.3	90.0	99.1	-5.6%	10.1%

Source: ELSTAT

Table 3.5

Business Expectations Indices in Retail Trade per sub-sector (1996-2006=100)

	Jan. - Sep. 2015	Jan. - Sep. 2016	Jan. - Sep. 2017	2016/ 2015	2017/ 2016
Food-Drinks-Tobacco	83.6	116.5	85.2	39.4%	-26.9%
Textiles - Clothing – Footwear	77.1	87.1	104.1	13.0%	19.5%
Household Appliances	65.2	85.0	81.2	30.4%	-4.5%
Vehicles-Spare Parts	95.2	98.1	106.1	3.0%	8.2%
Department Stores	77.9	97.8	86.6	25.5%	-11.5%
Total Retail Trade	**80.6**	**97.5**	**90.7**	**21.0%**	**-7.0%**

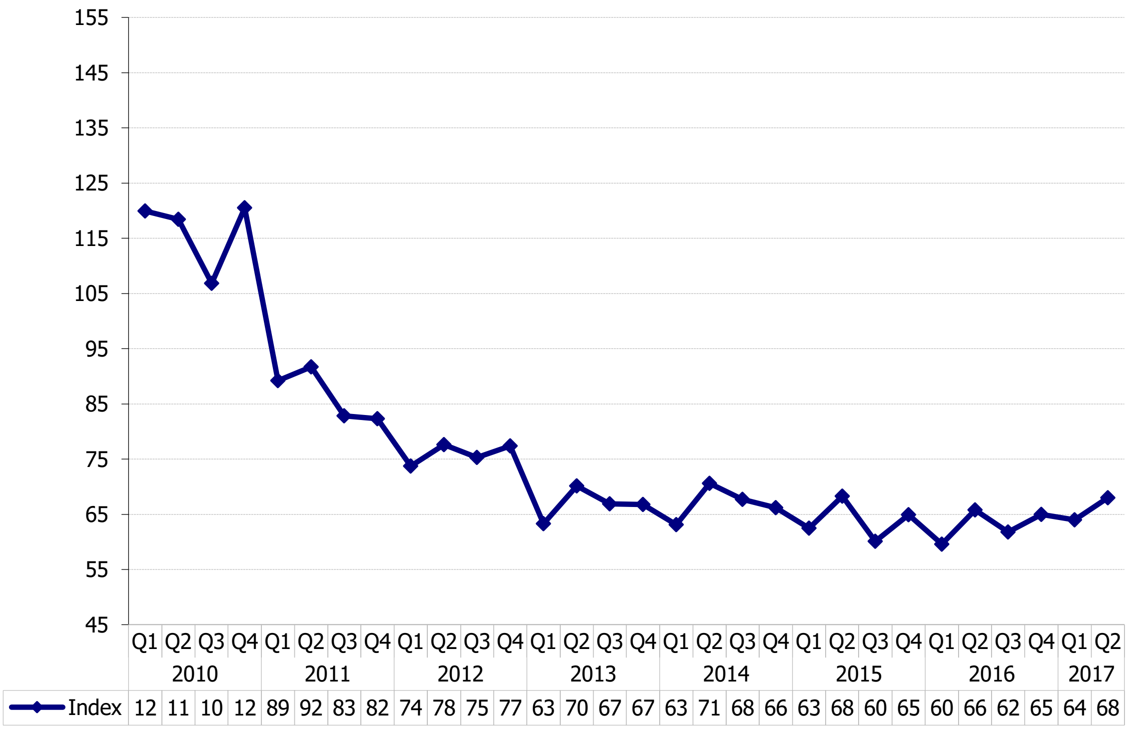
Source: IOBE

Wholesale Trade

In the first half of 2017, turnover in wholesale trade increased, as the corresponding index strengthened by 4.9%, against a decline by 4.1% in the corresponding period of 2016. The index had also increased year on year in the first half of 2014, yet at only a marginal rate (+0.2%). Despite its growth, the index in the first half of 2017 lagged by about 44 percentage points from its 2010 reference level.

Figure 3.5

Turnover Index in Wholesale Trade



Source: ELSTAT

Services

Turnover fell year on year in the first half of 2017 in six of the thirteen branches of Services. The largest decline was recorded in Publishing Activities (branch 58), where turnover was down by 16.5%, against a decline by 11.5% in the preceding period. Architectural – Engineering Activities (branch 71), where the indicator declined by 10.4% (against +5.9% in the preceding period), came next, followed by Information Service Activities (branch 63) with a decline by 9.2%, against a fall by 7.6% in 2016, and Cleaning Activities (branch 81.2), where turnover declined by 4.6%, against 23.8% in 2016. The indicator in Office Support Activities (branch 82) decreased by 1.2%, against growth by 8.7% in the previous year. In contrast, activity growth in the first quarter of 2017 was recorded in Other Professional – Scientific – Technical Activities (branch 74), where the indicator increased by 17.2% (against -14.3% last year), followed by Computer Programming (branch 62), with 7.1% growth, as in the previous year (+7.2%), and Employment Activities (branch 78, 4.9% against 11.9% in 2016). A lower increase was recorded in Legal – Accounting – Management Consultancy Activities (branch 69 & 70.2), where turnover increased by 3.6%, against a significant decline by 12.0% in the previous year, and in Postal Activities (+1.9%, against -0.6% a year earlier).

According to the **leading indicators of the Business Surveys conducted by IOBE** in the first nine months of 2017, the sentiment improved year on year in most branches of Services. The overall indicator for Services rose by 11.7 points compared to the same period of 2016, when it had increased by only 3.5 points. At the branch level, the representatives of Financial Intermediaries held the most optimistic expectations (+27.9 points, from 2.4 points last year). Optimism also strengthened in Tourism, where the index increased by 22.5 points, against a decline by 8.3 points a year earlier. In contrast, the representatives of Computer Activities were more pessimistic than a year ago, as the relevant indicator declined by 2.6 points, against an increase by 21 points in the same period of 2016.

Table 3.6

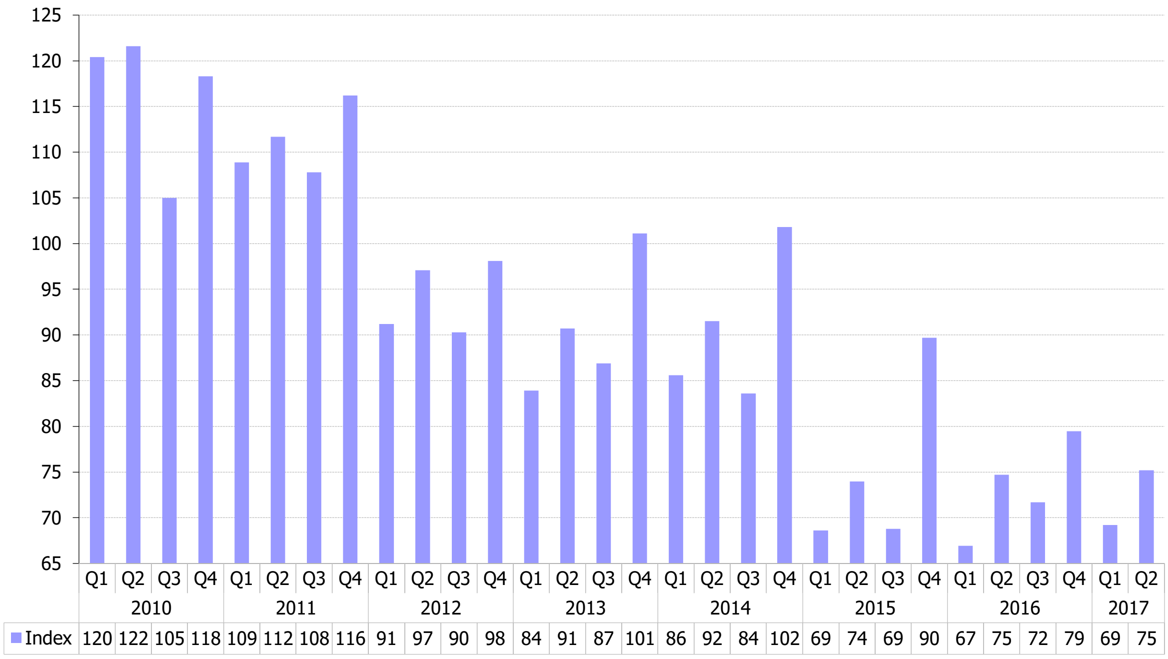
Turnover Indices (annual change, 2010=100)

	H1 2015	H1 2016	H1 2017	%Δ '16/'15	%Δ '17/'16
Computer programming, consultancy and related activities	75.8	81.3	87.0	**7.2%**	**7.1%**
Land transport and transport via pipelines	81.3	77.9	83.1	**-4.2%**	**6.7%**
Warehousing and support activities for transportation	85.8	91.7	97.7	**6.8%**	**6.6%**
Tourism	72.9	69.6	73.3	**-4.5%**	**5.4%**
Legal, accounting and management consultancy activities	83.9	73.8	76.4	**-12.0%**	**3.6%**
Trade of motor vehicles	66.9	72.0	74.2	**7.5%**	**3.1%**
Postal and courier activities	71.3	70.8	72.2	**-0.6%**	**1.9%**
Air transport	97.4	97.3	98.5	**-0.1%**	**1.2%**
Telecommunications	71.8	71.1	71.4	**-1.0%**	**0.4%**
Office administrative activities	112.3	122.1	120.7	**8.7%**	**-1.2%**
Advertising and market research	47.9	44.6	44.1	**-6.8%**	**-1.2%**
Information service activities	101.2	93.5	84.9	**-7.6%**	**-9.2%**
Architectural and engineering activities	41.5	43.9	39.4	**5.9%**	**-10.4%**
Water transport	55.7	53.7	47.2	**-3.6%**	**-12.1%**
Publishing activities	50.2	44.4	37.1	**-11.5%**	**-16.5%**

Source: ELSTAT

Figure 3.6

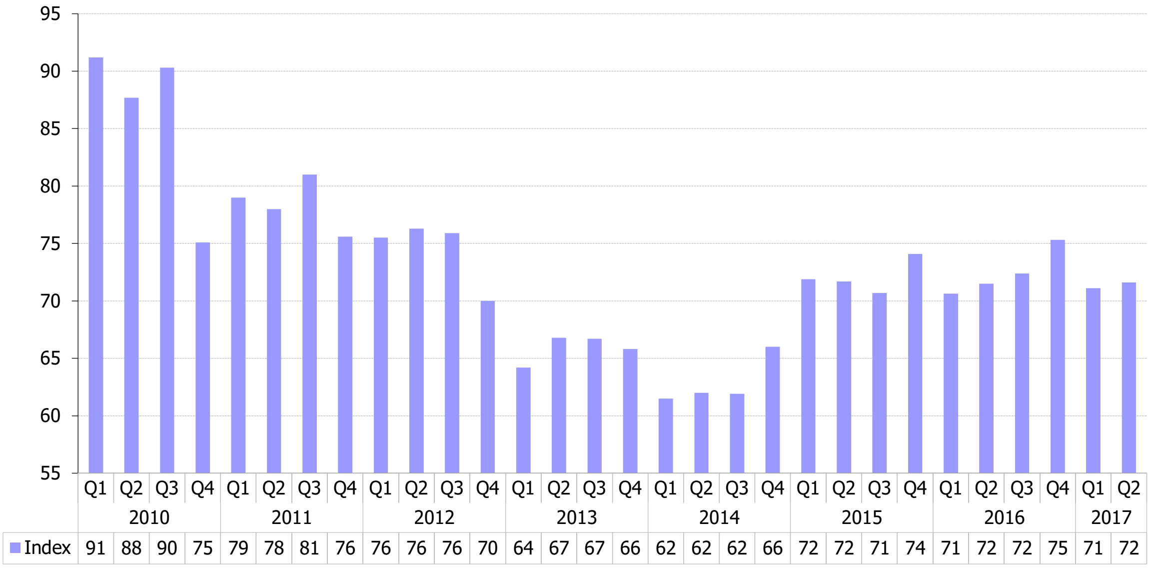
Turnover Index in the Postal and Courier Activities **(branch 53)**



Source: ELSTAT

Figure 3.7

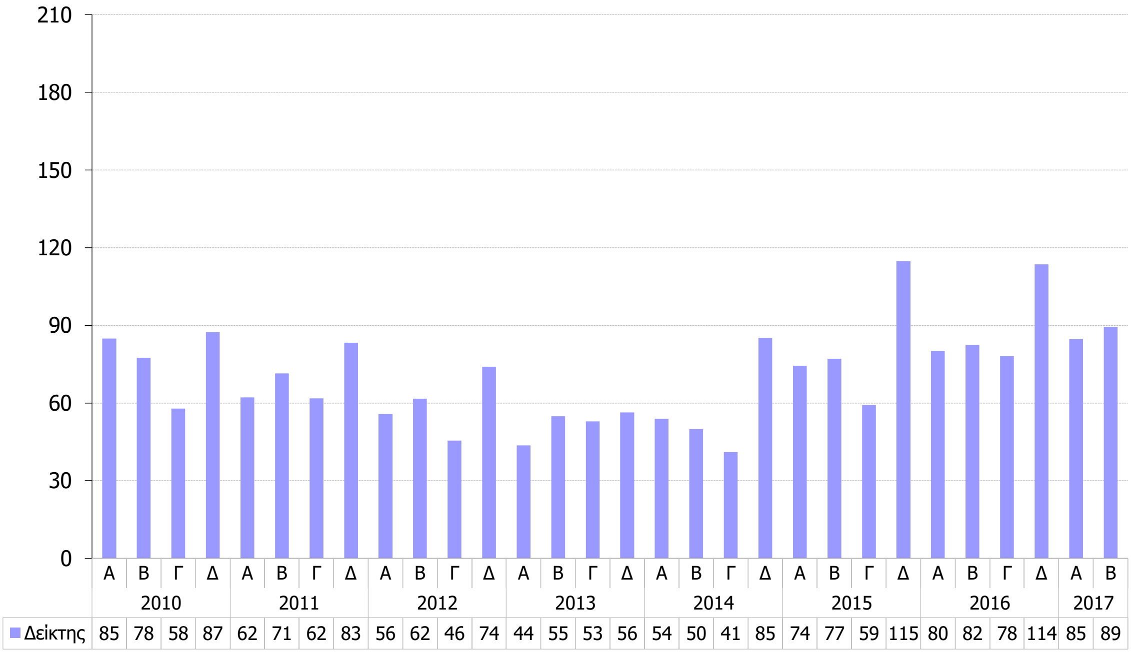
Turnover Index in Telecommunications **(branch 61)**



Source: ELSTAT

Figure 3.8

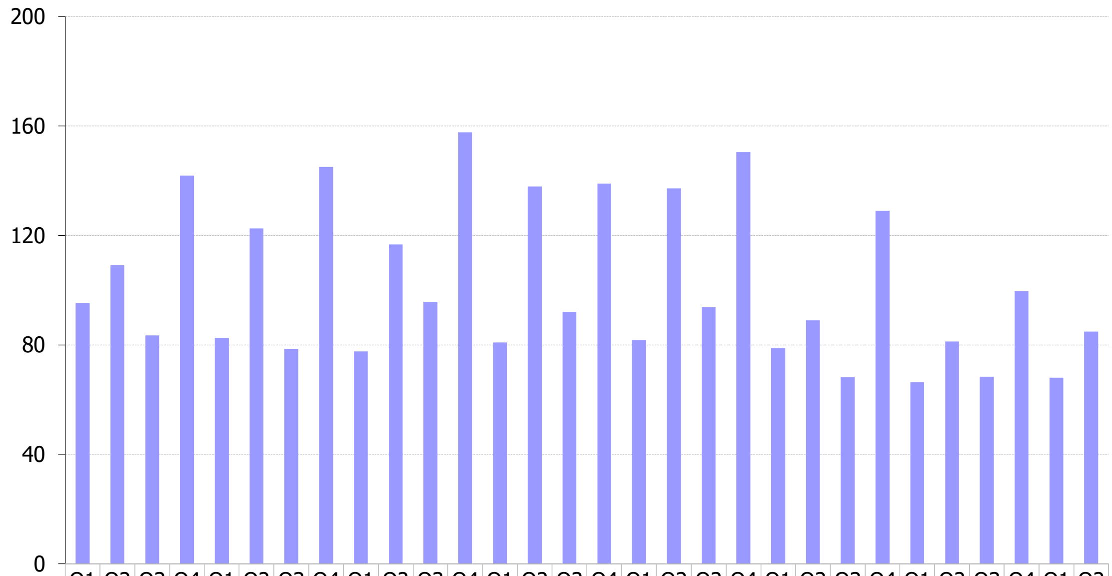
Turnover Index in Information Services **(branch 62)**



Source: ELSTAT

Figure 3.9

Turnover Index in Legal, Accounting and Management Consultancy Services **(branches 69+70.2)**

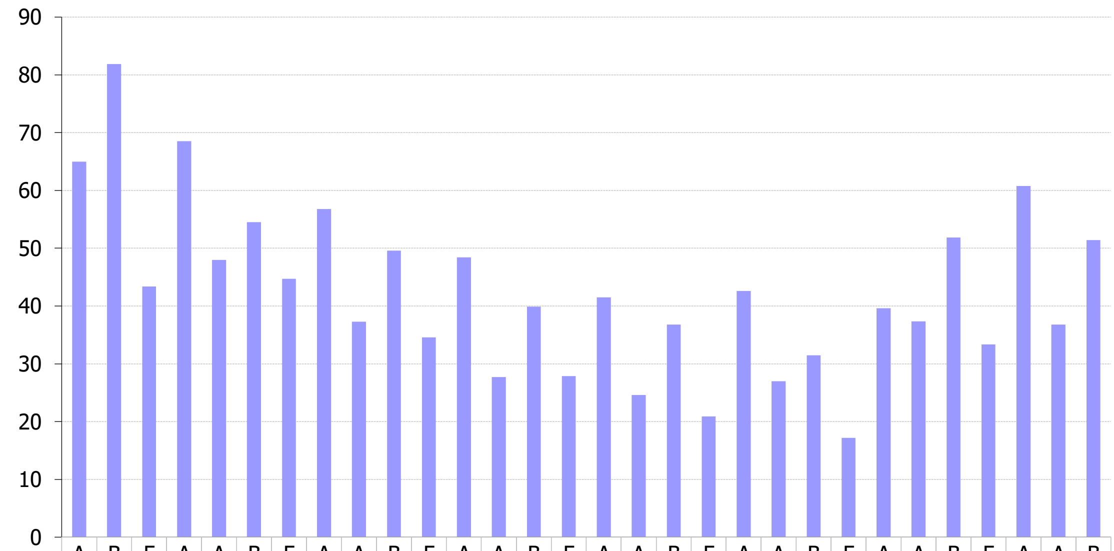


	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	2010				2011				2012				2013				2014				2015				2016				2017	
Index	95	109	84	142	83	123	79	145	78	117	96	158	81	138	92	139	82	137	94	150	79	89	68	129	66	81	68	100	68	85

Source: ELSTAT

Figure 3.10

Turnover Index in Advertising and Market Research **(branch 73)**

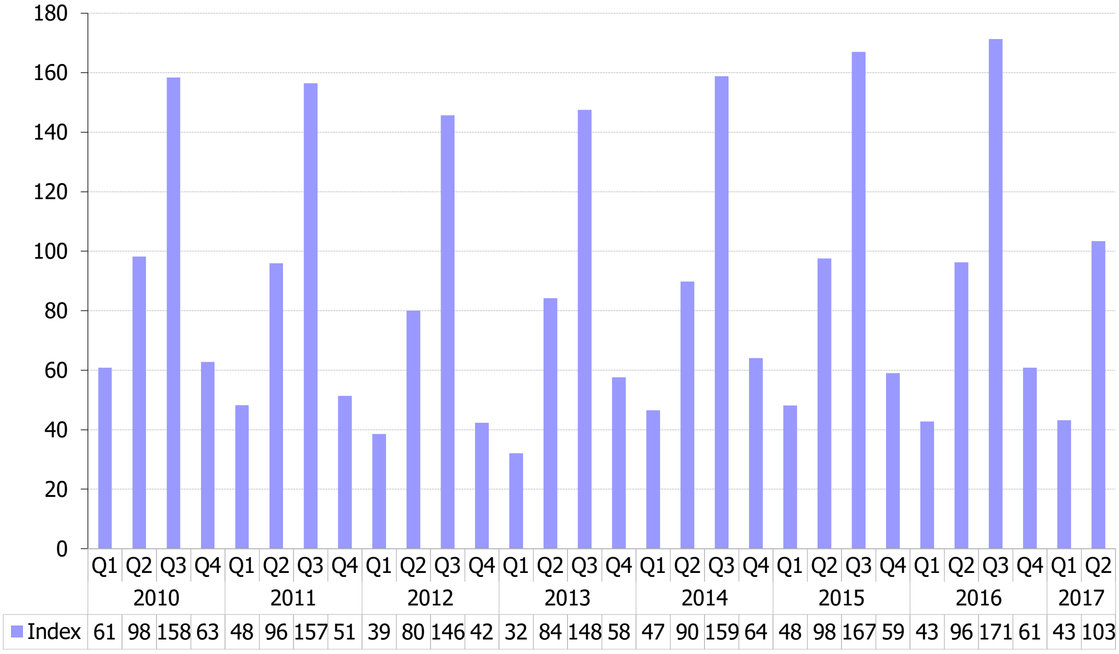


	Α	Β	Γ	Δ	Α	Β	Γ	Δ	Α	Β	Γ	Δ	Α	Β	Γ	Δ	Α	Β	Γ	Δ	Α	Β	Γ	Δ	Α	Β	Γ	Δ	Α	Β
	2010				2011				2012				2013				2014				2015				2016				2017	
Δείκτης	65	82	43	69	48	55	45	57	37	50	35	48	28	40	28	42	25	37	21	43	27	32	17	40	37	52	33	61	37	51

Source: ELSTAT

Figure 3.11

Turnover Index in Tourism (Accommodation and Food Services Activities, **branches 55 & 56)**



Source: ELSTAT

Table 3.7

Sector Indices of Business Sentiment in Services (1996-2006=100)

	Jan. - Sep. 2015	Jan. - Sep. 2016	Jan. - Sep. 2017	%Δ '16-'15	%Δ '17-'16
Hotels – Restaurants – Travel Agencies	95.6	87.3	109.8	-8.7%	25.8%
Other Business Services	48.2	53.0	63.3	10.0%	19.4%
Financial Intermediation	57.5	59.9	87.8	4.2%	46.6%
Information Services	53.7	74.8	72.2	39.3%	-3.5%
Total Services	**70.7**	**74.2**	**85.9**	**5.0%**	**2.0%**

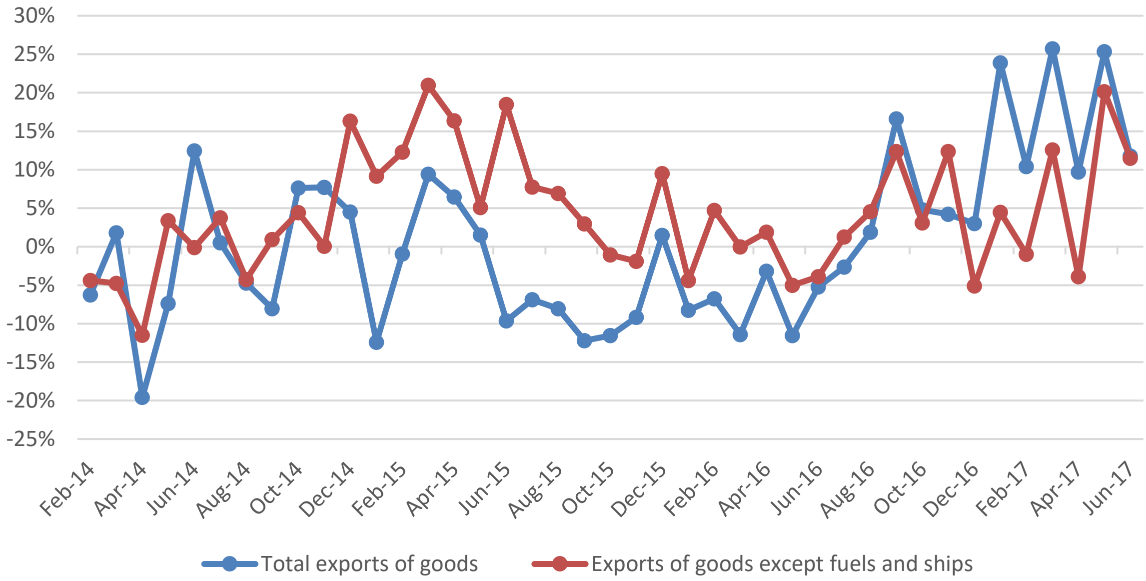
Source: IOBE

3.3 Export performance of the Greek economy

The exports of goods stood at €14 billion in the first half of 2017, from €11.9 billion in 2016, recording **an increase of 17.9%.** However, **if petroleum and ship exports are not taken into account, the remaining exports increased by 7.3%**, to reach €9.7 billion this year, from €9 billion in 2016 (Figure 3.12). Imports increased by 18.8% in the first half of 2017, to reach €25 billion, from €21.1 billion a year ago. As a result of the above trends in the main components of the external balance, the **trade deficit** increased by €1.846 billion year on year (+20%), to €11 billion, from €9.3 billion. Subsequently, the **value of the exports of goods** of the Greek economy **accounted for 55.7% of its imports**, from 56.2% last year.

Figure 3.12

Total export activity and exports of goods except for fuels and ships (% change)



Source: ELSTAT Processing: IOBE

In greater detail, the exports of Agricultural Products declined by 0.3% in the first half of 2017, to reach €2.741 billion, from €2.749 billion in the corresponding period of the previous year, while the exports of Fuel increased by 51.8%, as a result of the growth in the global oil prices, to approach €4.4 billion, from €2.9 billion in 2016 (Table 3.8). Note that the exports of these product categories account for 51.3% of Greek exports (from 47.8% last year). The decline in Agricultural Products was mainly due to the 15.7% drop in the exports of Oils and Fats of Animal or Plant Origin, to €294.6 million (from €349.5 million in 2016). As a result, their share in total exports shrank from 2.9% in 2016 to 2.1% this year. The exports of Food – Live Animals, which accounts for approximately 75.9% of the exports of Agricultural Products, increased by 2.7%, from €2.02 billion in 2016 to €2.08 billion in 2017. The foreign demand for Beverages – Tobacco, which represent 13.4% of the exports of Agricultural Products, totalled €366 million in the first half of 2017, lower by 2.2% year on year (from €374.1 million).

The exports of Industrial Products increased by 8.1% in the first half of 2017, with their value reaching €5.9 billion, from €5.5 billion a year ago. This rise is explained by the strengthening of foreign demand for Manufactured Goods Classified Chiefly by Raw Material, by 14.4%, with their value reaching €2.2 billion (from €1.9 billion in 2016), while the exports of Chemical and Related Products also rose, by 12.4%, to €1.5 billion in the current year, from €1.3 billion a year ago. In contrast, deterioration in the export performance was recorded in Machinery and Transport Equipment, by 3.8% (to €1.24 billion, from €1.29 billion in 2016), while the exports of Miscellaneous Manufactured Articles increased by 5.4% to €961 million in the current year, from €912.1 million a year earlier.

Finally, the exports of Raw Materials increased by 39%, from €424 million in the first half of 2016, to €589.3 million in the same period of this year, while the exports of Commodities and Transactions Not Classified by Category increased by 3.7% (from €253.5 million last year to €263 million in 2017).

Regarding the export trends by geographical area, the exports to the Euro area countries expanded by 8.4%, reaching €5.3 billion in the first half of 2017, from €4.9 billion in the corresponding period in 2016, absorbing 38.3% of the Greek exports of goods in the current year. There was a similar increase in the EU-28, by 8.5%, or €590.2 million. Among the Eurozone countries with the largest share of Greek exports, a significant increase was recorded in Italy, of the order of 7.5% (from €1.5 billion in 2016 to around €1.6 billion in 2017) and in Germany, by 6.6% (from €962.7 million last year to €1 billion this year). The exports to France also increased, by 16.9%, from €333.9 million in 2016 to €390.3 million this year. In contrast, a decline in exports was recorded in Spain and the Netherlands, by 4.4%, to €344.3 million (from €360 million in 2016) and 3.3%, to €297.8 million (from €307.9 million) respectively. Note that the largest percentage contraction in exports in the first half of 2017 in the Eurozone was recorded in Finland, where it reached 21.3% or €18.2 million (from €85.1 million a year ago to €67 million this year). In contrast, the highest percentage increase was recorded in Estonia (+72.2%).

Among the other countries of the European Union, where total exports grew by 8.7% or €173.9 million (from €2 billion in the first half of 2016 to €2.2 billion in the same period of this year), Bulgaria continues to be the main export destination, with an increase in outflows relative to 2016 by 10.9% or €63 million. The exports to two other countries which also absorb a significant share of Greek exports from this group of countries, Romania and the UK, also increased, by 8% or €30.1 million, to €404.8 million, and by 8% or 39.4 million, to €532.7 million, respectively. The largest decrease, by 8%, was recorded in Sweden, where Greek exports declined by €7.7 million (from €96.1 million to €88.4 million in 2017).

The Greek exports to other European countries increased by 28.1%, from €1.7 billion last year, to €2.2 billion in the current year. In Turkey, one of the major export destinations, exports expanded significantly, by 45.6% or €277.3 million, from €607.5 million in the first half of last year to €884.9 million in the same period of this year.

The exports to the North American countries increased by 5.6%, from €646.5 million last year to €682.5 million in 2017, mainly due to the increase in exports to the US by 7.8%, from €494 million in the first half of 2016 to €532.5 million a year later, with the export to Canada growing as well, by 5.5%. In contrast, the exports to Mexico fell by 6.7%.

The exports to the Middle East and North Africa expanded by 35.8% (from €1.6 billion in 2016 to €2.2 billion this year), mainly due to an increase in exports to Lebanon (+48.7%), from €420.1 million in the first half of 2016 to €624.9 million in the same period of this year, and to Egypt, where they reached €376.8 million, from €337.3 million (+11.7%). The exports to two other major export destinations in the Middle East, Saudi Arabia and the United Arab Emirates, increased by 43.5%, to €326.8 million and by 14.9%, to €113.2 million, respectively.

The flow of exports of Greek products to Oceania increased by 20.8%, with their value reaching €77.6 million in the first half of 2017, against €64.2 million in the same period a year earlier. The exports to Australia expanded by 20.3% (from €58.5 million in the previous year, to €70.4 million in 2017), while in New Zealand, which has a small share of the exports to this geographical region, they increased by 25.1% (€5.7 million in 2016 and €7.1 million this year).

Table 3.8

Exports per category at current prices, January - June (million €)

PRODUCT	VALUE		% CHANGE	% COMPOSITION	
	2017*	2016*	17*/16*	2017*	2016*
AGRICULTURAL PRODUCTS	2,741.1	2,748.9	-0.3%	19.6%	23.2%
Food and Live Animals	2,080.6	2,025.3	2.7%	14.9%	17.1%
Drinks and Tobacco	366.0	374.1	-2.2%	2.6%	3.2%
Oils and Fats of animal or plant origin	294.6	349.5	-15.7%	2.1%	2.9%
RAW MATERIALS	589.3	424.0	39.0%	4.2%	3.6%
Non-edible Raw Materials excluding Fuels	589.3	424.0	39.0%	4.2%	3.6%
FUELS	4,431.7	2,920.2	51.8%	31.7%	24.6%
Minerals, Fuels, Lubricants etc.	4,431.7	2,920.2	51.8%	31.7%	24.6%
INDUSTRIAL PRODUCTS	5,954.8	5,506.2	8.1%	42.6%	46.5%
Chemicals and Related Products	1,505.9	1,339.5	12.4%	10.8%	11.3%
Industrial Products Sorted by Raw Material	2,243.5	1,960.5	14.4%	16.0%	16.5%
Transport Equipment	1,244.4	1,294.2	-3.8%	8.9%	10.9%
Various Manufactured Goods	961.0	912.1	5.4%	6.9%	7.7%
OTHER	263.0	253.5	3.7%	1.9%	2.1%
Goods and Transactions not sorted by Category	263.0	253.5	3.7%	1.9%	2.1%
TOTAL EXPORTS	13,980.0	11,852.9	17.9%	100.0%	100.0%

* Provisional data

Source: ELSTAT, PSE-KEEM

The exports to the markets of Central and Latin America declined by 25.7% in the first half of 2017, with their value reduced to €98.2 million, from €132.2 million during the same period a year ago. The deterioration in export performance to these countries came mainly from the sharp fall in the demand for Greek products from Brazil, by 73%, with their value at €13.1 million this year, from €48.6 million in 2016.

In contrast, the demand for Greek goods increased significantly in the Asian countries, where exports increased by 79.1% in the first half of 2017, to €833 million from €465.2 million a year earlier. This development came mainly from the strengthening of exports to South Korea (+146.2%, to €115.1 million this year from €46.7 million in 2016), and Singapore (+193.4%, to €225.6 million from €76.9 million a year ago). Similarly, a significant expansion of Greek products, by 44.8%, was recorded in China, from €145.9 million last year, to €211.2 million a year later.

Summing up, the exports of Greece increased significantly in the first half of 2017, both in terms of total value (+17.9%) and in terms of export value except petroleum products and ships (+7.3%).

Table 3.9

Exports by destination, January-June 2017 and 2016*

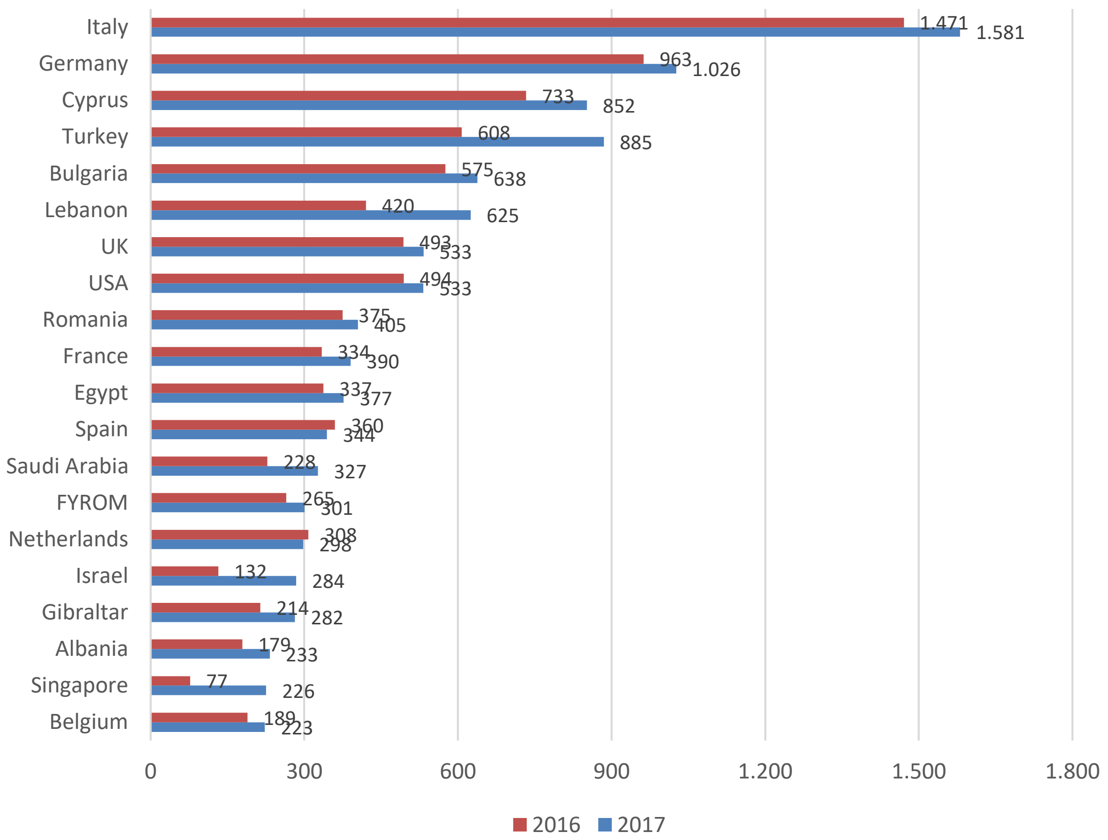
ECONOMIC UNION – GEOGRAPHIC REGION	EXPORTS		% CHANGE	% COMPOSITION	
	2017	**2016**	**2017/2016**	**2017**	**2016**
World	13,980.0	11,852.9	17.9%	100.0%	100.0%
OECD	7,698.8	6,734.4	14.3%	55.1%	56.8%
EU	7,534.3	6,944.2	8.5%	53.9%	58.6%
Euro Area	5,349.9	4,933.7	8.4%	38.3%	41.6%
G7	4,169.3	3,844.2	8.5%	29.8%	32.4%
North America	682.5	646.5	5.6%	4.9%	5.5%
BRICS	377.0	329.1	14.6%	2.7%	2.8%
Middle East & North Africa	2,207.5	1,625.7	35.8%	15.8%	13.7%
Rest of Africa	746.4	646.5	15.4%	5.3%	5.5%
Oceania	77.6	64.2	20.8%	0.6%	0.5%
Latin America	98.2	132.2	-25.7%	0.7%	1.1%
Rest of Asia	833.0	465.2	79.1%	6.0%	3.9%
OPEC	740.3	606.2	22.1%	5.3%	5.1%

* The data for both years are provisional

Source: ELSTAT, KEEM

Figure 3.12

Countries with the largest share in the exports of Greek products (in million €), January-June 2017 and 2016



Source: KEEM **Data processing:** IOBE

It is worth noting that in all sectors (Raw Materials, Fuels, Industrial Products, Other Items and Transactions not Classified in Categories) exports increased, with the exception of agricultural products, where they declined (-0.3%).

The growth of exports in the first half of this year mainly came from higher oil prices and stronger demand from the EU, which is in a phase of growth acceleration, and the countries from the region of the Middle East and North Africa, such as Egypt, where the armed conflicts of recent years have eased up. As the rise in oil prices started in the second half of 2016, its inflationary effect on exports will ease in the corresponding period of this year. In contrast, the continued acceleration of growth in the EU in the current half of the year and in 2018, according to the latest forecasts by international organisations, will remain a growth driver of exports, while slightly stronger growth is also expected next year in the Middle East – North Africa region. More broadly, Greek exports next year will benefit from the faster growth of the world economy and international trade. The appreciation of the euro against the dollar, which has gradually taken place since the beginning of 2017 and is not expected to back track over the rest of the year and in 2018, will hamper export growth.

Taking into account the aforementioned effects, the exports of goods are expected to continue to grow in the second half of this year, with slightly more moderate pace than in the previous half, resulting in their overall growth in 2017 by 16 %. The rise in exports excluding petroleum products will accelerate in the rest of 2017, reaching 8.5% overall. Total exports will continue to expand in 2018, at a double-digit growth rate.

3.4 Employment – Unemployment

According to the last data of the Labour Force Survey of ELSTAT, **the unemployment rate in Greece declined for the 13th consecutive quarter (since Q2 2014), as it fell to 21.1% in the second quarter of 2017, from 23.1% in the same quarter of 2016 and 23.3% in the first quarter of 2017.** The number of unemployed decreased by 95,500 people year on year (from 1,112,100, to 1,016,600 or -8.6%). Correspondingly, the number of employed persons increased by 88,800 (from 3,702,600 to 3,791,400 or +2.4%).

In comparison with the **other member countries of the Euro area**, Greece continued to show the highest unemployment rate, despite the steady decline. Spain followed at a distance, with its unemployment rate falling for the 15th consecutive quarter, down 2.8 percentage points year on year, to 17.2%. Italy and Cyprus came next, with much lower and similar unemployment rates, at 10.9% and 10.6% respectively, from 11.5% and 12.1% a year earlier. The lowest rate in the second quarter of this year, at 3.8% from 4.2% a year ago, occurred in Germany, where unemployment has been falling since the second quarter of 2010. The unemployment rate in Malta, which stood at 4.1 percent, 0.7 percentage points lower compared with the same quarter of 2016, came next. In the other two countries that implemented adjustment programmes, Ireland and Portugal, unemployment fell for the 20th and 16th consecutive quarter, respectively. In the former unemployment fell by 2.2 percentage points, from 8.6% in the second quarter of 2016, to 6.4% a year later, while in the latter it declined by 2 percentage points, from 11% to 9%. Among other major economies in Europe, in France, unemployment stood at 9.1%, lower by 0.5 percentage points year on year, while in the United Kingdom it declined for the 20th consecutive quarter, standing at 4.3% from 4.8% in the second quarter of 2016. Overall in the Euro area, unemployment remained in the second quarter of this year on a downward trajectory for the 14th consecutive quarter, standing at 9%, down from 10% a year ago.

Regarding the **gender** differences in unemployment, the unemployment rate among women in Greece fell by 2.1 percentage points year on year in the second quarter to 25.5%. Despite its fall, it stood 7.8 percentage points higher than the unemployment among men, which declined by 1.8 percentage points, to

17.7%. In the Euro area, the unemployment among men was down by one percentage points year on year in the second quarter (8.7%). Meanwhile, among women it fell by 0.6 percentage points, from 10.4% to 9.3%.

Regarding the **age structure**, unemployment decreased in all age groups for the second consecutive quarter. Note that among young people (aged 20-24 years and 25-29 years) and the age group 30-44 years, unemployment has been in decline since mid-2014. Despite this trend, the highest rates of unemployment mainly occur in these age groups. Among those aged 20-24 years, the unemployment rate stood at 42.1% in the second quarter of 2017, from 48% a year earlier. In the age category 25-29 years, it fell to 30.1% from 32.6%. Among those aged 30-44, the unemployment rate stood below the national rate, at 20.3%, from 21.5% in Q2 a year ago. Finally, in the age category 45-64 years the unemployment rate in the Q2 of this year stood at 17.1%, two percentage points lower compared with the same quarter of 2016.

The percentage of **long-term unemployed** in the second quarter of this year increased to 74%, for the first time since the second quarter of 2015, 1.8 percentage points higher year on year. Despite the increase in the long-term unemployment rate, the number of long-term unemployed decreased for the 11th consecutive quarter, totalling 752,000 people in the second quarter of 2017, from 802,500 in the same period of 2016 (down by 50,500 or 6.3%).

The correlation of unemployment with the level of education remains negative, i.e. the rate is lower at higher levels of education. The biggest year-on-year fall in unemployment in Q2 of this year took place among holders of lower secondary education diploma and was in the order of 3.5 percentage points, from 27.4% to 23.9%. By contrast, the highest increase, by 16.8 percentage points, was recorded among those who received but did not finish primary education, from 25.1% in Q2 of 2016 to 41.9% in Q2 of 2017. This category also exhibits the highest rate of unemployment. The lowest unemployment rates were observed among holders of doctorate or master degrees, where the unemployment rate stood at 9.9% in Q2 of this year from 11.8% in Q2 of last year and in people with higher technical vocational education diploma where the unemployment rate decreased to 15.8% from 17.3% a year earlier.

Regarding the **regional structure** of unemployment, in three of the 13 regions of the country, unemployment increased (Epirus, the Ionian Islands, and the North Aegean). The highest unemployment rate was recorded in Western Macedonia, at 29.3%, despite the year-on-year decline by 1.3 percentage points. In contrast, the lowest unemployment rate in the second quarter of this year occurred in the South Aegean, where it stood at 14.3%, from 18.4% a year earlier. The largest unemployment fall was recorded in Western Greece by 5.1 percentage points, from 31.3% to 26.2%. Lastly, in Attica, the region with the highest share of the Greek population, the unemployment rate stood close to the country average, at 21.5% from 22.6% (decline for the 14th consecutive quarter), while in Central Greece – a major manufacturing centre – the unemployment rate has declined since early 2014, to reach 20.7% in the second quarter of 2017, from 24.4% last year.

At the level of basic economic sectors, the Primary sector employment, after a transient increase in Q1 of 2017, declined again, while it should be noted that its fall began in the second quarter of 2014. In Q2 of 2017, it declined by 14,200 people or 3%, i.e. from 471,200 to 457,000 employees. By contrast, employment in the two other sectors increased. In the Secondary Sector, employment increased for the 10th consecutive quarter in the second quarter, as the number of employed totalled 581,000 people, from 571,300 people in the same quarter of last year (+1.7%). In the Tertiary sector, the most populous sector in the country, the number of employed increased by 93,300 (or 3.5%) from 2,660,000 in the first quarter of last year, to 2,753,300 this year, growing for the 14th consecutive quarter.

Employment declined in eight **branches of economic activity** (Agriculture-Forestry-Fishing, Mining-Quarrying, Construction, Real Estate Activities, Public Administration – Defence, Education, Activities of Households as Employers, and Activities of Extraterritorial Organisations and Bodies). The largest decrease in the number of employed took place in Agriculture-Forestry-Fishing, where it declined by 3% or 14,200 persons (from 471,200 to 457,000). In contrast, the greatest increase in employment was recorded in Wholesale – Retail Trade, where the number of employed increased by 5.2% or 33,600 people, from 650,300 in the second quarter of 2016 to 683,900 in the second quarter of 2017. In Manufacturing, a major sector for the Greek economy, employment increased for the 10th consecutive quarter in the second quarter of this year, to reach 360,200 people, from 350,100 people in the same quarter of 2016 (+2.9%). In Tourism, another major sector, employment increased by 6.6% (+23,300 people), recording the highest employment growth among the branches of economic activity, with the jobs in the sector growing from 351,900 to 375,200. In Public Administration-Defence, employment decreased for the first time after 7 quarters of uninterrupted growth, by 0.2% or 700 persons, to about 331,900 from 332,600 people.

In conclusion, the employment figures at the branch level show that the increase in employment in the second quarter of 2017 originated mainly from:

- Wholesale-Retail Trade (+33,600 people or +5.2%), in line with the increase in seasonally adjusted indices on i) Volume in Retail Trade and ii) Turnover in Wholesale Trade, by 2.4% and 2.7% respectively, in the Q2 of this year
- Tourism (+23,300 people or +6.6%), as a result of the growth of international tourist arrivals by 9% (5.8

million to 6.3 million) according to Bank of Greece data, in Q2 of this year

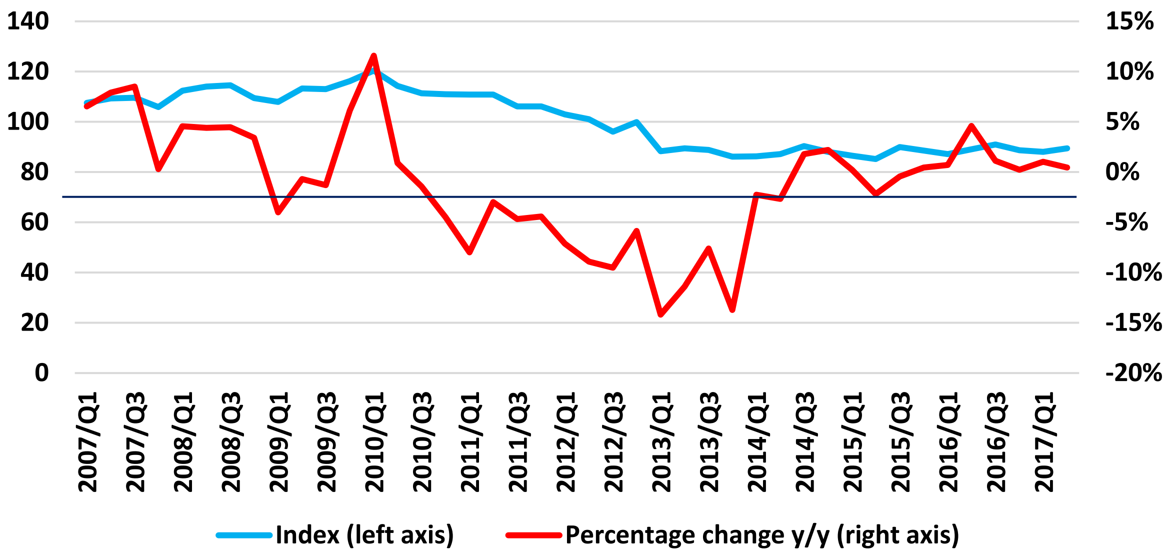
- Manufacturing (+10,100 persons or +2.9%), in congruence with the year-on-year increase in the Industrial Production Index by 3.2% and the Industrial Turnover Index by 12.9%

and despite declining employment in Agriculture-Forestry-Fishing by 14,200 people or 3%.

Regarding the recent trend in labour costs, **the seasonally adjusted labour cost index for the economy as a whole** declined significantly between the second quarter of 2010 and the third quarter of 2013. A number of reforms took place during that period, such as the introduction of contracts for the 18-25 years old with 20% lower minimum wage (Law No. 3986/2011), reduction of the minimum wage by 22% for workers over the age of 25 years and over 32% for workers under the age of 25 (Law No. 4046/2012) and reduction of the compensation in case of dismissal (Law No. 4093/2012), which resulted – inter alia – in the fall of wage costs. Subsequently, the fall weakened, while since Q3 of 2014 there has been - with some exceptions – a mild rise in the wage cost index. In the second quarter of the current year, the seasonally adjusted labour cost index for the economy as a whole rose year on year by 0.4% in the second quarter of this year, from 89.1 to 89.5 points.

Figure 3.13

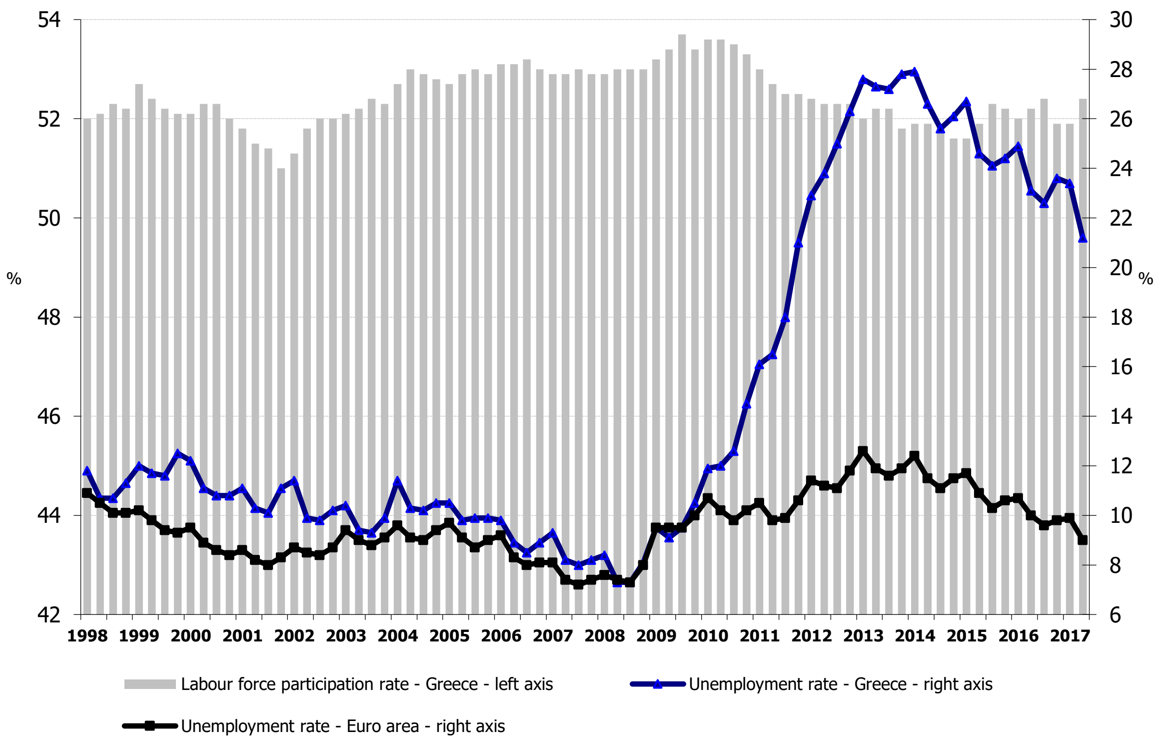
Seasonally adjusted wage cost index (Q1/2007-Q2/2017)



Source: ELSTAT, **Data processing: IOBE**

Figure 3.14

Labour force participation and unemployment rates



Source: ELSTAT, Labour Force Survey, Eurostat

Table 3.10

Population aged 15 years and over by employment status (in thousands)

Quarter/Year	Total	% of Population	Employed	Percentage (%) of the labour force	Unemployed	Percentage (%) of the labour force
2005	9,332.4	52.9	4,443.6	90.0	493.6	10.0
2006	9,374.1	53.1	4,527.5	91.0	448.2	9.0
2007	9,412.3	52.9	4,564.1	91.6	418.4	8.4
2008	9,435.1	53.0	4,610.5	92.3	387.9	7.8
2009	9,431.1	53.4	4,556.0	90.4	484.7	9.6
2010	9,399.4	53.5	4,389.8	87.3	639.4	12.7
2011	9,372.9	52.7	4,054.4	82.2	881.8	17.9
2012	9,344.8	52.3	3,695.0	75.6	1,195.1	24.4
Q1 2013	9,316.5	52.0	3,504.2	72.4	1,336.0	27.6
Q2 2013	9,311.7	52.2	3,535.0	72.7	1,327.9	27.3
Q3 2013	9,307.1	52.2	3,533.7	72.8	1,320.3	27.2
Q4 2013	9,302.7	51.8	3,479.9	72.2	1,337.2	27.8
2013	**9,309.5**	**52.1**	**3,513.2**	**72.5**	**1,330.4**	**27.5**
Q1 2014	9,295.8	51.9	3,483.7	72.2	1,342.3	27.8
Q2 2014	9,286.6	51.9	3,539.1	73.4	1,280.1	26.6
Q3 2014	9,277.5	51.9	3,586.9	74.5	1,229.4	25.5
Q4 2014	9,268.5	51.6	3,535.3	73.9	1,245.9	26.1
2014	**9,282.1**	**51.8**	**3,536.3**	**73.5**	**1,274.4**	**26.5**
Q1 2015	9,259.1	51.6	3,504.4	73.4	1,272.5	26.6
Q2 2015	9,250.7	51.9	3,625.5	75.4	1,180.1	24.6
Q3 2015	9,242.3	52.3	3,671.1	76.0	1,160.5	24.0
Q4 2015	9,234.1	52.2	3,641.7	75.6	1,174.7	24.4
2015	**9,246.6**	**52.0**	**3,610.7**	**75.1**	**1,197.0**	**24.9**
Q1 2016	9,226.3	52.0	3,606.3	75.1	1,195.1	24.9
Q2 2016	9,217.2	52.2	3,702.6	76.9	1,112.1	23.1
Q3 2016	9,208.3	52.4	3,736.7	77.4	1,092.6	22.6
Q4 2016	9,199.4	51.9	3,648.6	76.4	1,124.0	23.6
2016	**9,212.8**	**52.1**	**3,673.6**	**76.5**	**1,130.9**	**23.5**
Q1 2017	9,190.7	51.9	3,659.3	76.7	1,114.7	23.3
Q2 2017	9,181.4	52.4	3,791.4	78.9	1,016.6	21.1

Source: ELSTAT, Labour Force Survey

Medium-term outlook

As already mentioned in the previous quarterly bulletin, the recent completion of the second review of the current Economic Adjustment Programme is expected to reduce substantially the uncertainty about the prospects of the Greek economy. The recent decision by the European Council last September, which endorsed the proposal of the Commission to take Greece out of the excessive deficit procedure, boosted this development.

As the uncertainty eases and the confidence in the Greek economy strengthens, the positive effects on employment are expected to come mainly from Tourism, Manufacturing, Wholesale-Retail Trade and Exports.

In the tourism sector, according to Bank of Greece data, the number of tourist arrivals increased by 8% year on year in the first seven months of 2017, from 12.1 million to 13.1 million, while the surplus of the travel account increased by 8.5% in the first half of this year (€3.15 billion compared to €2.9 billion in the corresponding period of 2016). These trends reflect the clear, constant strengthening of activity in the tourism sector. They are expected to continue, even though the data for all indicators are not available for July and August, when tourist flows peak.

Positive effects on employment are also expected from Manufacturing, due to production growth. It comes from growth of exports, which increased year on year by 17.9% at current prices in the first half of this year. The index of Industrial Production increased for the fifth consecutive quarter, while it increased year on year by 5.5% in the first eight months of 2017.

Wholesale-Retail Trade will also continue to exert positive effects on employment, powered by growing household consumption. In the seven months of the year, the seasonally adjusted Turnover Index in Retail Trade increased by 3.1% year on year, while the seasonally adjusted Turnover Index in Wholesale trade increased year on year by 2.8% in the first half the 2017.

The public sector's contribution to employment, although positive, mainly due to the implementation of temporary employment programmes, is going to be lower in the current half of the year.

Taking into account the above effects, IOBE's forecast regarding the unemployment rate is revised up, from 22.2% to 21.7%.

In 2018, it is expected to further ease, from a boost of employment in most sectors that contributed to the decline of this year. The contribution of the construction sector to the new fall in unemployment is expected to be stronger, while the job creation in the tourism sector is probably going to be weaker than in the current year. Employment growth, especially of permanent jobs, is expected to take place in the public sector. **As a result of the various sectoral effects,**

the unemployment rate next year will decline to about 20%.

According to the latest IOBE business surveys, **the short-term employment expectations improved quarter on quarter in the third quarter in Construction, remained stable in Industry and deteriorated in Retail Trade and, marginally so, in Services.**

Compared to the same period of last year, the expectations improved in all sectors, with the strongest growth in Industry and weaker improvement in Construction. In detail:

In Industry, the +6 points average balance of the previous quarter improved remained unchanged in the third quarter of this year. Compared to last year's performance, the average quarterly index was higher by 12 percentage points. In the quarter under examination, the percentage of industrial firms that expected a drop in employment in the next period stood at 8% (from 7%), while the percentage of those expecting employment growth slightly rose to 14% (from 12%). The vast majority of businesses in the sector (78% from 81%) were expecting employment to remain unchanged.

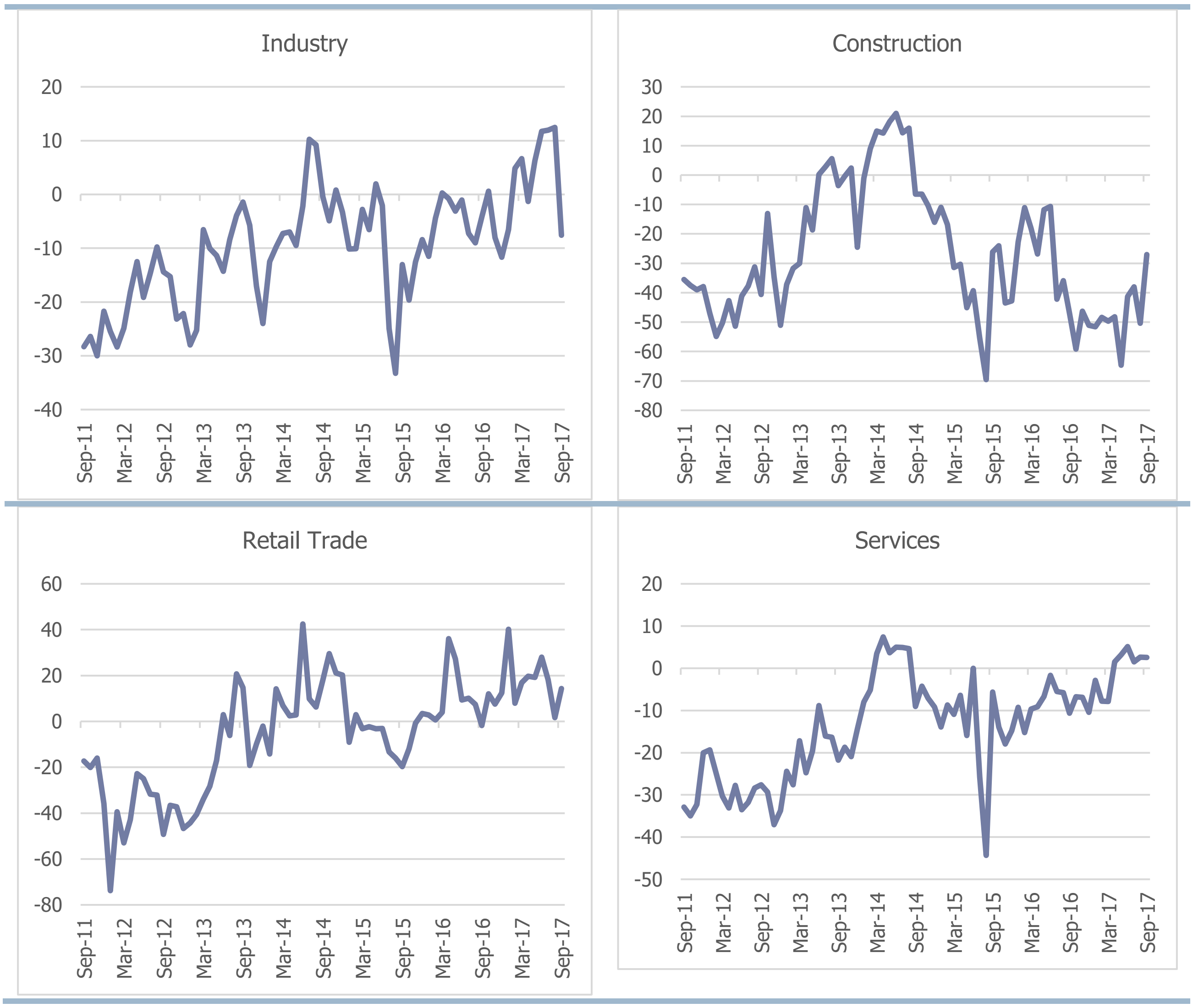
In Construction, the balance of expectations increased from a markedly low level, to -39 (from -51) points, three points higher year on year. In the third quarter of 2017, 44% of the businesses in the sector were anticipating further job losses, while 6% (from 8%) of the respondents were expecting employment growth. At the sub-sector level, the growth of the index in Public Works (to -43 from -64 points on average) was accompanied with an increase in Private Construction (to -29 from -32).

In Services, the employment expectations marginally lost ground compared to the previous quarter, while they improved over the same period of last year. Thus, the relative balance of +3 points of the previous quarter became +2 points in the quarter under review (from -7 points on average in the corresponding quarter of 2016). About 11% (from 12%) of the companies in the sector were expecting a drop in employment, with the percentage predicting an increase growing to 14% (from 15%). At the branch level, the trend is positive in Financial Intermediaries and Other Business Activities and negative in the other subsectors.

The employment outlook indicator in Retail Trade declined quarter on quarter in the third quarter of the year, to +11 (from +22) points. This performance is marginally higher, compared to last year (+5 points). About 6% (from 3%) of the firms in the sector were expecting job cuts, while 17% (from 25%) were anticipating employment growth, with those expecting stability taking up 77% (from 72%) of the sample. The employment expectations weakened in the third quarter of 2017 in all branches of Retail Trade, except Department Stores, where the indicator increased.

Figure 3.15

Employment expectations (difference of positive – negative responses)



Source: IOBE

3.5 Consumer Prices

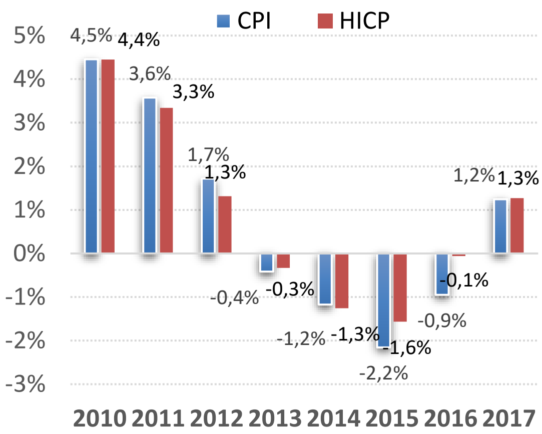
Recent Developments

The Greek economy experienced mild inflation in the first eight months of this year, after four years of consecutive deflation. The Consumer Price Index (CPI) increased on average by 1.2% year on year, compared with 0.9% in the same period of last year. Respectively, the Harmonised Index of Consumer Prices (HICP) increased by 1.3%, compared to a reduction of 0.1% in the same period of last year (Figure 3.16). In the third quarter of 2017, the annual price increase slowed slightly, but remained close to 1%.

The rise in the international oil prices and the increase in indirect taxation since July 2016 (VAT, excise duty on beer) and January 2017 (excise duty on petroleum products, tobacco products and e-cigarettes, and new taxes on fixed telephony and coffee) were the main drivers of the upward trend in prices since the beginning of the year.

Figure 3.16

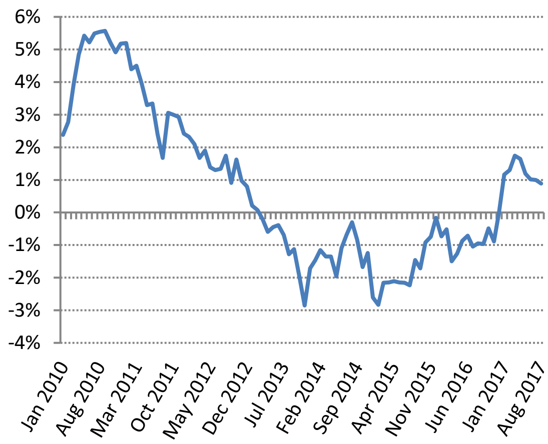
Average CPI and HICP changes in Greece (January – August)



Source: ELSTAT. Data processing: IOBE

Figure 3.17

CPI in Greece (annual percentage change)



Source: ELSTAT. Data processing: IOBE

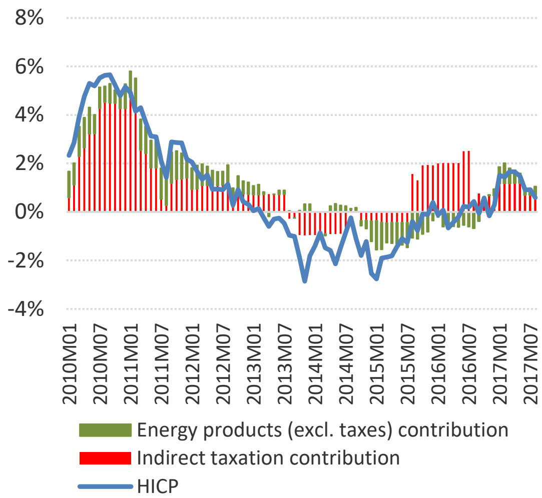
The global oil prices ($/barrel) strengthened by 58% cumulatively from the start of 2016 until the first quarter of 2017, while the dollar appreciated against the euro by 4% during the same period. After a fall of the international oil prices by 8% in the second quarter of 2017, they increased again by 5% in the third quarter, which, however, came together with appreciation of the euro against the dollar that reached 10% cumulatively since the beginning of 2017. As a result of the above changes, the crude oil price in September 2017 reached €48/barrel on average, 15% higher year on year, while in the first eight months of the year it was significantly higher year on year, by about 28% on average.

The indirect taxes had an inflationary effect on prices in the first three quarters of 2017, as apart from the increase in VAT in June 2016, whose effect on prices was completed one year after its implementation, significant changes in indirect taxation came into force on 01/01/2017, such as hikes in the excise duty on motor diesel, LPG, tobacco, electronic cigarettes, fixed telephony and coffee. In addition, the increase of the excise duty on fuel oil and beer came into effect from October and June 2016 respectively. The above hikes were offset only partly by reductions in the excise duty on natural gas used by households from 01/01/2017, the abolition of the excise duty for use of natural gas in power generation from 01/06/2016 and the adjustment of the excise duty of natural gas for uses other than heating and transport from 01/01/2017.

Note that the trend of prices in Greece without the influence of energy products and changes in taxation remained marginally negative in the first eight months of the year, at among the lowest rates in the Euro area.

Figure 3.18

HICP inflation in Greece and the impact of energy product prices and tax hikes



Source: Eurostat. Data processing: IOBE

In the first eight months of 2017, the percentage change in the HICP in Greece HICP approached the Eurozone average (1.3% against 1.6%). However, removing the effect of energy prices and taxes, prices rose considerably faster in the Euro area than in Greece. In particular, the inflation rate excluding energy products in Greece stood at 0.6% (Figure 3.19), the fourth lowest in the Euro area after Ireland (-0.2%), Cyprus (0.2%) and Finland (0.5%). In addition, the inflation rate without the effect of taxes in Greece averaged 0.3%, which was the second lowest in the Euro area after that of Ireland (0.1%). If the effect of energy prices and taxes is removed, the rate of inflation in Greece from the beginning of the year until August remained negative for the seventh consecutive year, with an annual change of -0.2%, which was the second lowest in the Euro area after that of Ireland (-0.3%).

Since the beginning of the Greek crisis, the consumer price index recorded in August of 2017 was higher by 1.6 percentage points than its level from 2010, and 2.5 percentage points lower than its maximum value, recorded in 2012. Removing the impact of energy prices and taxes, the level of consumer prices in August 2017 showed a cumulative drop of 4.8 percentage points since 2010, which, however, is substantially weaker than the cumulative reduction in nominal unit labour costs, by approximately 14 percentage points over the same period.

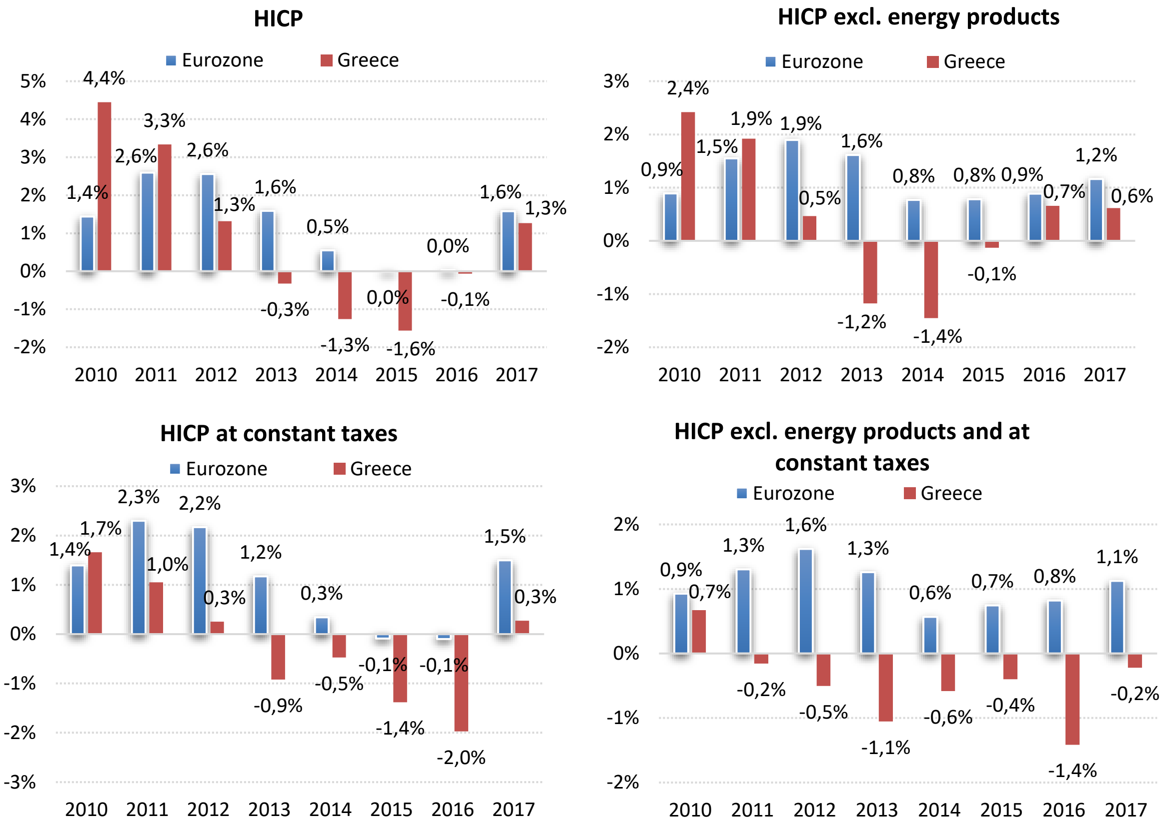
The inflationary effects of the oil prices and the raised and new indirect taxes are reflected in the changes in individual categories of goods and services in the first eight months of 2017. The largest increase in prices was recorded in Transport (+6.8%, compared to -4.0% in 2016) and the third largest in Housing (+3.2%, from -4.5% last year), which are most affected by energy cost variations. Alcoholic Beverages - Tobacco recorded the second highest rise (+5.3% against +1.4% in 2016), reflecting the increases in indirect taxes on tobacco, cigarettes and beer since the start of this year. In Telecommunications the prices increased as a result of the new levy on fixed telephony (+1.8%, from +0.3% in 2016). Hotels-Cafe-Restaurants came next (+1.8%, from 2.6% last year), followed by Food–Non-Alcoholic Beverages, (+0.3%, from 0.4% in 2016). The prices in the remaining sectors (education, recreation, clothing-footwear, health services) declined during the same period, with the greatest reduction occurring in durable goods, household appliances and services (-3.1%, after -0.3% 2016).

The Producer Price Index (PPI) of the domestic and foreign markets as a whole increased by 6.1% in the first eight months of the current year, against a strong decline in the same period of 2016 (-8.5%). The large fluctuation of the PPI largely reflects corresponding changes in the prices of energy products due to fluctuations in the price of oil. The index recorded its highest increase for this particular period of the year since 2011. PPI without energy increased 1.0%, against 1.3% decline in the same period of 2016.

In detail, the strongest inflation in the first eight months of 2017 was recorded in Energy goods excluding electricity (+25%, compared to -24% in 2016), Energy goods (+14%, versus -18% last year), Mining-Quarrying-Manufacturing (+7%, -8% a year ago). Slight positive changes were recorded, inter alia, in Intermediate Goods (capital and non-capital), Durables and lastly in Consumer Goods.

Figure 3.19

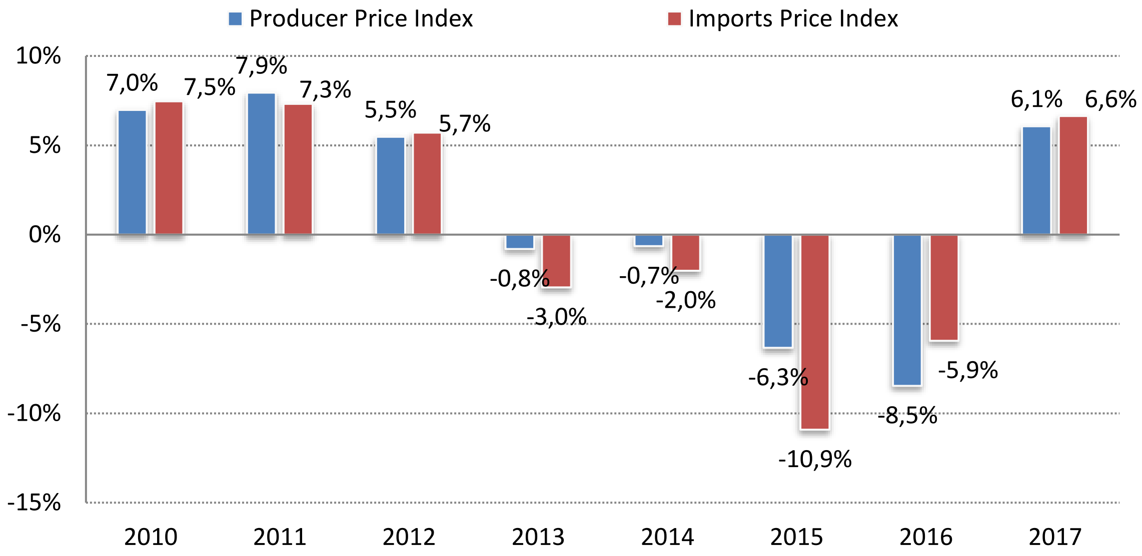
Annual change of HICP in Greece and the Euro area (January – August)



Source: Eurostat. Data processing: IOBE

Figure 3.20

Annual change of PPI and IPI in Greece (January – August)



Source: ELSTAT. Data processing: IOBE

The Import Price Index (IPI) has also increased significantly since the beginning of the year, by 6.6%. Its growth was the largest in ten countries of the Euro area with available data, equalling that of Spain and Finland. The index increased in all the countries in the Euro area. The rise of import prices came from much higher average oil prices compared to the same period in 2016 and the slight depreciation of the euro in the first quarter of 2017. The differences among the countries in the IPI inflation reflect the varying degree of use of energy products and the size of the trade transactions with countries outside the Euro area. Note that both the easing of global oil prices in the second quarter of 2017 and the appreciation of the euro in the second quarter of 2017, led to a weakening of the CPI inflation in the last few months.

Medium-term outlook

As evident from the analysis of the trends in changes in consumer prices during the first eight months of this year, the inflation comeback came primarily from higher and more indirect taxes and secondarily as a result of international trends in oil prices. The impact of the first factor is expected to weaken in the final quarter of 2017 and in 2018. However, the impact of oil prices is likely to remain the same.

In particular, increases in indirect taxes, especially those on motor diesel and LPG, as well as new indirect taxes (fixed telephony, coffee) will continue to have an impact on prices until the end of 2017, when one year since their entry into force will expire. As inflation eased during the first half of the year, it is estimated that in the final four months of the year it will be lower than in the first eight months, at 0.5-0.7% instead of 1.0%, in terms of annual change of HICP.

The global oil price growth is expected to fluctuate in the fourth quarter but also during the 2018, near its last year rates, according to the latest forecasts by international organisations (IMF), with some likelihood of further strengthening. In the final quarter of 2016 and the first three quarters of this year, the price of Brent oil averaged $49, $53, $50 and $52. Accelerating economic growth in the Euro area and the US since the third quarter of this year will be conducive to a mild upward trend in the oil prices over the near term. As according to the latest forecasts by international organisations (IMF), the growth momentum will continue in 2018 and extend to the developing economies, the observed rise in the oil prices might be maintained, yet its sharp increase is not expected.

The appreciation of the euro against the dollar ameliorated the propping effect of oil on consumer prices. With the growth in the Euro area strengthening in 2017 and continuing with at least comparable pace next year, a preservation of the exchange rate at the same level would largely alleviate the inflationary pressures of oil prices. In summary, the weakening of the inflationary impact of indirect taxes and international oil prices on CPI will slow down inflation in the last quarter of this year. Overall in 2017, CPI will rise for the first time in four years, by 1.0%. The new indirect tax rises since the beginning of the following year (VAT in Northeast Aegean Islands and the Dodecanese) and the levy of new ones (residence tax in hotels and rented rooms and apartments), the highest since the second quarter year on year oil price increase and stronger consumer demand from the further reduction of unemployment will keep prices on the rise, at a comparable pace year on year.

Valuable information on the price trends in the coming period is also provided by IOBE's monthly business surveys, the results of which serve as leading indicators of price developments on the supply side.

The quarter-on-quarter changes in the price expectations vary across the sectors, as the corresponding indicators in Private Construction, Retail Trade, Industry and Services took negative values in the third quarter. In particular, the price expectations indicator marginally increased quarter on quarter in Industry and Services and decreased in Private Construction and Retail Trade. Year on year, the expectations for price changes slightly strengthened in Services and Industry, and weakened in Private Construction and Retail Trade. In detail:

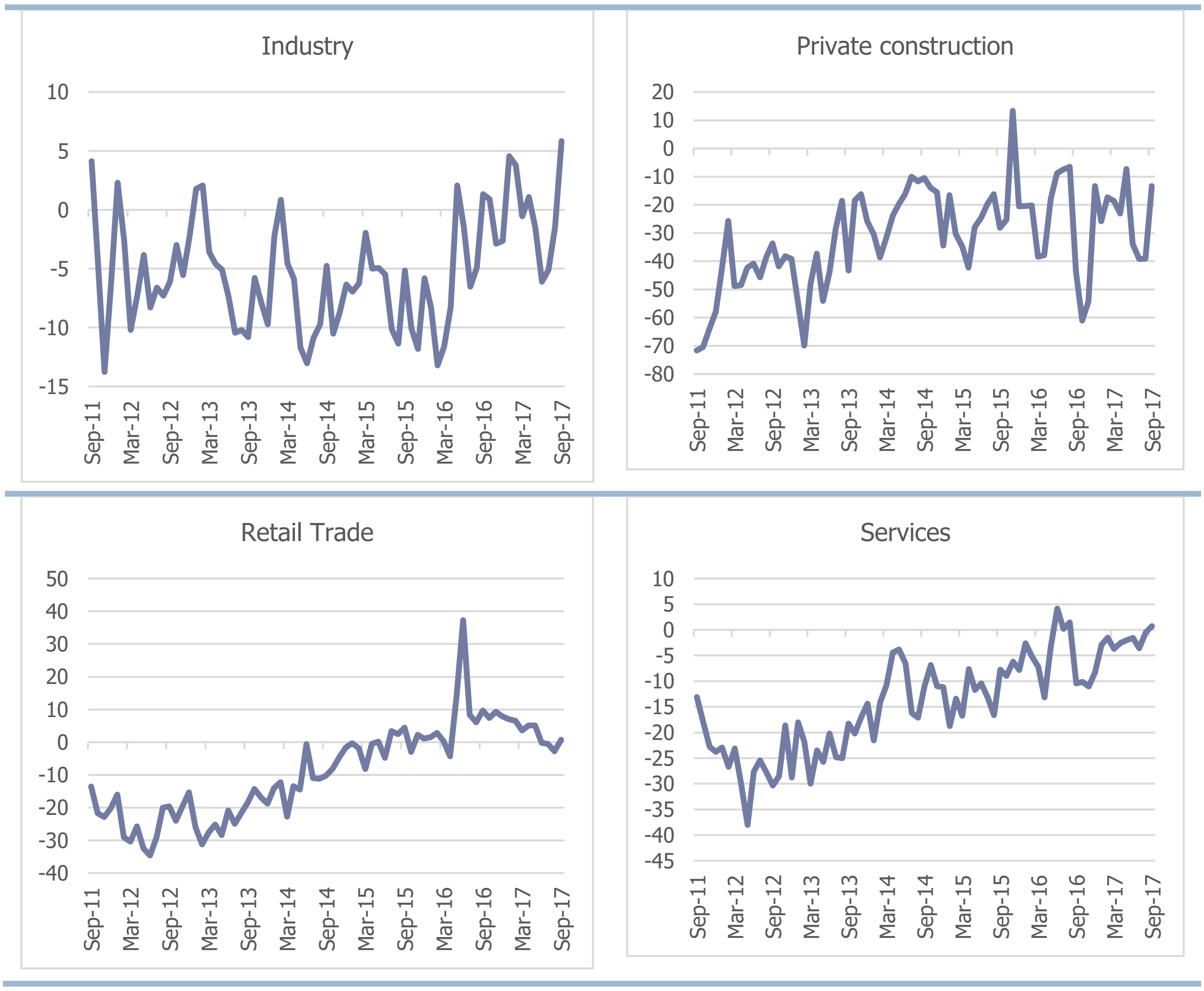
In Industry, the price expectations strengthened by 2 percentage points quarter on quarter in the third quarter, from -2 points in the previous quarter, and -3 points in the same period of last year. Of the companies in the sector, 7% (from 8%) on average predicted once more a fall in prices in the upcoming period, with 86% (from 87%) expecting stability and a 7% (from 6%) price increase.

In Retail Trade, the index for price expectations in the sector moved from +3 in the previous quarter to -1 point in the third quarter (from +8 to the corresponding quarter of last year). Of the companies in the sector, 9% (from 5%)

were expecting a fall in prices in the short term, while the percentage of those forecasting price growth remained at 8%, with the remaining 84% (from 86%) of the businesses expecting price stability. Among the sub-sectors of Retail Trade, the price expectations strengthened quarter on quarter in the third quarter of the year in Household Appliances and Department Stores, and weakened in the remaining sub-sectors.

Figure 3.21

Price expectations (difference between positive and negative answers)



Source: IOBE

The average index for the anticipated change in prices in Services in the examined quarter remained broadly unchanged compared to the previous quarter, moving to -1 (from -2), at a marginally higher level than its performance last year (-3 points on average). In the current quarter, 12% (from 13%) of the companies in the sector were expecting a fall in prices and a 10% (from 11%) an increase. At the branch level, the index increased only in Financial Intermediaries, falling in the remaining branches.

Finally, in Private Construction, the negative balance of -21 points from the previous quarter changed to -31 points, lower year on year as well. About 33% (from 23%) of the businesses in the sector were anticipating their prices to decline, while the percentage of those expecting inflation totalled 3% (from 1%).

3.6 Balance of Payments

Current Account

In the first seven months of 2017, the Current Account deficit totalled €1.2 billion, from €1.4 billion in the corresponding period of 2016. The narrowing of the deficit stemmed from an increase in the surpluses in the Services and Primary Income Accounts, which was partly offset by the surge in the trade deficit.

In particular, the deficit of the **Goods Account** reached €10.7 billion in the first seven months of 2017, as it worsened by 11.9% or €1.1 billion, compared with a reduction by 6.4% in 2016. Exports amounted to €16.1 billion, significantly strengthened by 17.0% (€2.3 billion),[22] as the exports of fuels (+45.3%) and other goods increased. Imports stood at €26.8 billion, up by 14.9% (€3.5 billion). The deficit of the **Goods Account excluding fuel and ships** increased in the first seven months of 2017 by 3.9%, as alongside the boost of exports by €966 million, imports increased by €1.3 billion. A significant increase was recorded in fuel exports and imports, by €1.4 billion and €2.2 billion respectively. As a result, the deficit of the fuel account increased by €774 million.

The surplus in the **Services Account** increased in the first seven months of 2017 to €8.5 billion, from €7.5 billion in 2016, with a simultaneous increase in receipts and payments. Total receipts amounted to €14.7 billion, up by 13.9% (€1.8 billion), while payments stood at €6.2 billion, up by 14.6% (€769 million). In the first seven months of 2017, the receipts from tourism stood at €7 billion, higher by €420 million year on year, while the receipts from transport services increased significantly by €776 million year on year to €5.0 billion. In addition, the receipts from other services increased by 29.5% (€601 million), to €2.6 billion. The payments for travel declined slightly by 1.9% to €1.1 billion, while the payments for transport services increased by 15.2% to €2.9 billion. The payments for other services increased by 24.2% to €2.3 billion.

The surplus of the **Primary Income Account** increased to €996 million in the first seven months of this year, from €704 million in 2016. Revenues amounted to €4.6 billion, up by 4.0%, while payments declined by 3.0% to €3.6 billion. In greater detail, income from labour increased to €87 million, from investments increased by 20% to €2.4 billion, while other primary income (subsidies and taxes on production) decreased by 9.9%, to €2.1 billion. Payments for labour income increased to €159 million, payments for investment income fell by 3.8%, to €3.2 billion, and those for other primary income decreased by 5.1%, to €225 million.

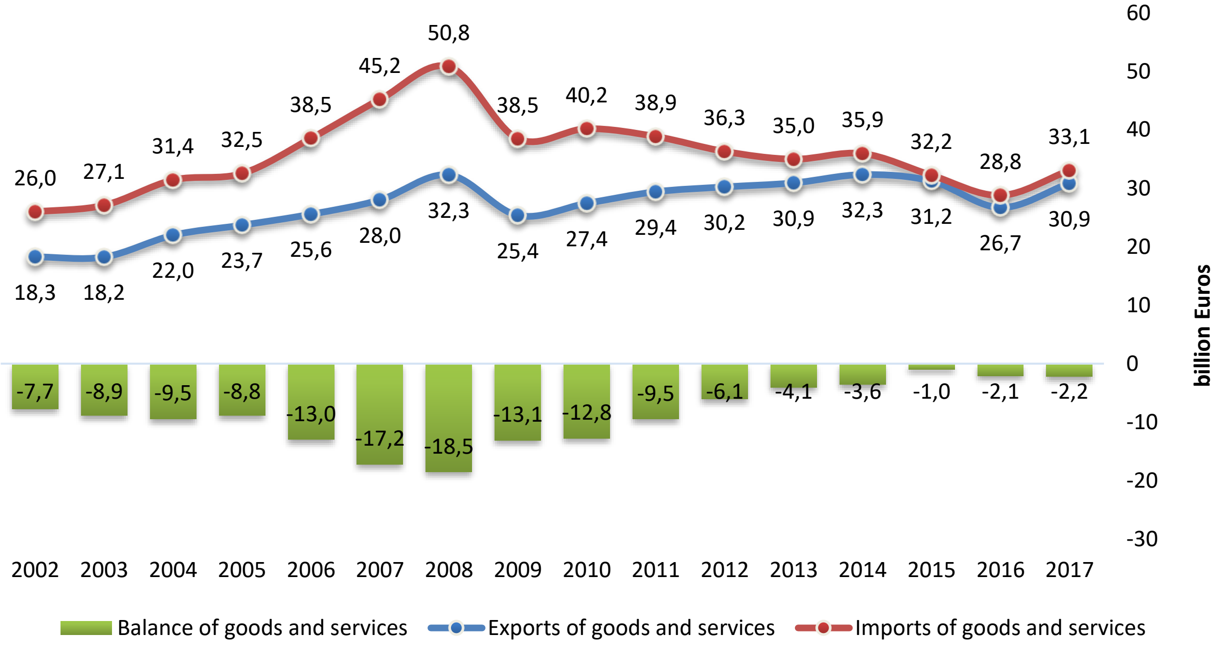
The **Secondary Income Account** recorded a small deficit of €15.6 million, from a deficit of €64.8 million in 2016. Receipts totalled

[22] The figures in brackets represent an absolute change com-pared with the corresponding period of the previous year, unless stated otherwise.

€1.3 billion, from €1.2 billion in 2016, while payments amounted to €1.3 billion, with an increase by €65 million compared to 2016.

Figure 3.22

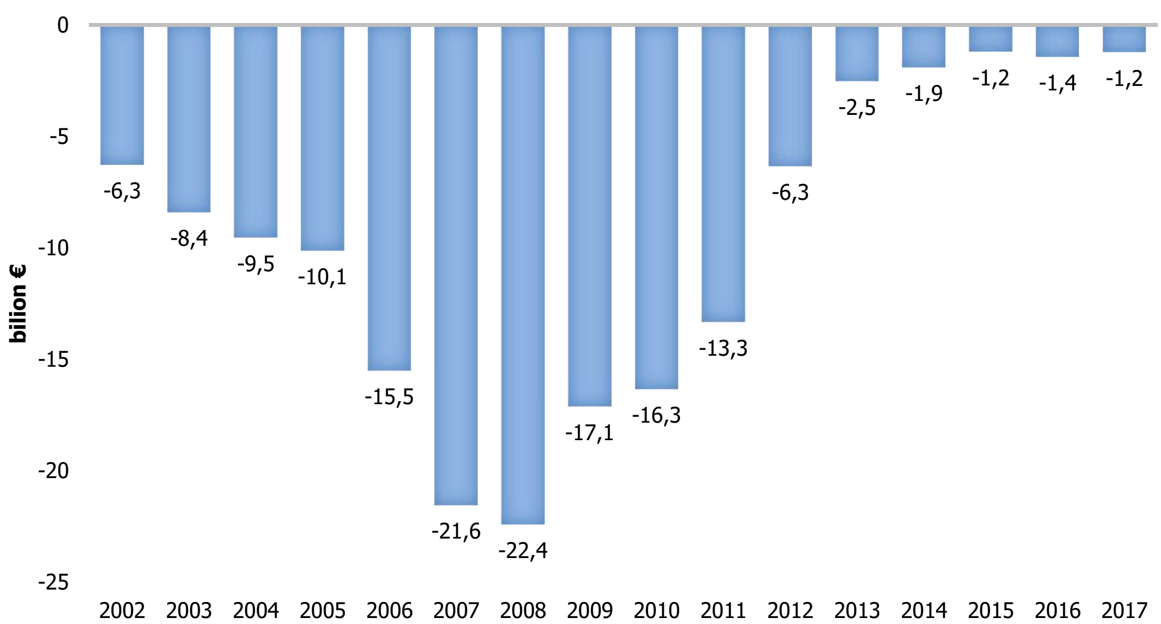
Imports-Exports of Goods and Services (January – July) 2002-2017



Source: Bank of Greece. Data processing: IOBE

Figure 3.23

Current Account (January – July) 2002-2017



Source: Bank of Greece. Data processing: IOBE

Capital Account

The surplus of the Capital Account[23] stood at €372 million, from €642 million in the same period of 2016. Receipts declined significantly by €371 million, while payments decreased by €49 million.

Finally, the Current and Capital Account, indicative of an economy's position as a lender or a borrower with respect to the rest of the world, recorded a deficit of €853.9 million, compared with a deficit of €793 million in 2016.

Financial Account

The deficit of the **Financial Account** reached €2.1 billion in the first seven months of this year, compared to a deficit of €582 million in 2016.

In detail, the net receivables of the residents from **direct investment** abroad increased by €639 million, while the net liabilities to non-residents increased significantly by €2.3 billion.

In the category of **portfolio investments,** the claims of the residents to non-residents decreased by €3.7 billion, as according to the Bank of Greece, the placements of residents in bonds and treasury bills abroad decreased. The liabilities to non-residents declined by €4.2 billion, mainly driven by decline in the holdings of Greek sovereign bonds and treasury bills by non-residents.

In the category of **other investments**, the claims of residents to non-residents declined by €8.8 billion in the first seven months of 2017, with a net decrease of €2.6 billion in the deposits and repos of residents (credit institutions and institutional investors) abroad. The liabilities declined by €6.7 billion, mainly reflecting the decline in public and private sector debt to non-residents by €4.3 billion and a reduction of the deposits and repos of non-residents in Greece.

Finally, the **Reserve Assets** of the country totalled €6.0 billion at the end of July 2017, from €6.9 billion in 2016.

Assessment

The southern countries of the Eurozone (Italy, Greece, Spain, Portugal and Cyprus) have emerged as the most vulnerable economies after the outbreak of the global financial crisis in 2008. These countries, with the exception of Italy, implemented fiscal adjustment programmes after 2010, with dual purpose. First, to limit the fiscal imbalances (high deficits), and second, to enhance their competitiveness, so as to improve the external balance. Upon the elapse of three to seven years from the start of the programmes of fiscal consolidation in these countries, the question is whether they managed to correct the twin imbalances, in the fiscal and the trade front, i.e. if they managed to reduce their budget deficits, to increase their exports and if their production model changed or is in the process of transformation due to the application of the fiscal programmes.

The budget deficits were corrected in all countries between 2010 and 2016, while the exports of goods strengthened considerably

[23] The capital account reflects capital transfers, i.e. ad-hoc receipts and payments between residents and non-residents related to fixed capital formation. Capital transfers include mainly some of the transfers (receipts) from the budget of the EU to the General Government (receipts from the Structural Funds – excluding the European Social Fund - and the Cohesion Fund under the Community Support Framework).

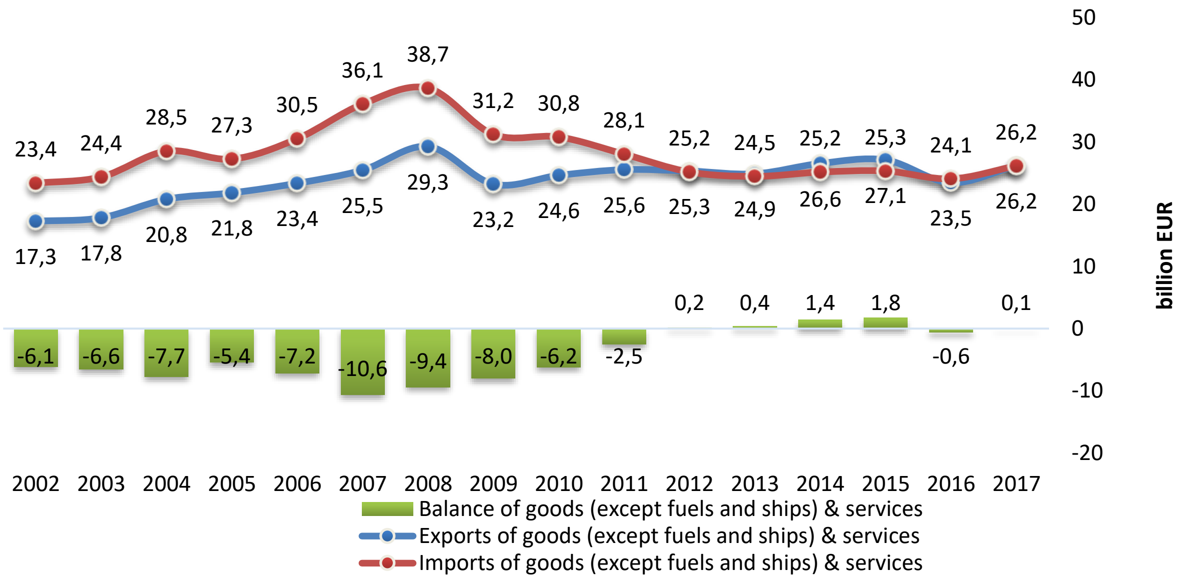
during the same period in all countries except Cyprus. However, the composition of tradable goods in these countries has not changed significantly, as portrayed in Figure 3.24, which shows the breakdown of exports in consumption goods, capital goods and raw materials. Thus, in the countries of the South as a whole, the share of exports of capital goods remained close to 36%-37% of total exports except fuel between 2010 and 2016, while in Greece the share stood at 13.8% in 2016, i.e. at the same level as in 2010. Greece's exports of goods rely mainly on raw materials, such as agricultural and mining products. This export composition implies that Greece does not export high value-added products.

Despite the fact that overall the structure of exports did not change in the economy, at the level of individual branches changes did occur. In particular, Figure 3.25 depicts the change in exports (in percentage terms) in capital goods, consumer goods and raw materials per branch, showing the branches with the highest positive or negative change, between 2010 and 2016, in their share in the exports of capital goods. The share of exports of capital goods increased most in the manufacture of electrical equipment (sector 27 according to NACE Rev 2), by 8.2 points between 2010 and 2016, with a corresponding decline in the share of exports of raw materials. This change is considered positive, as the branch turned its exports from initial stages products (raw materials) to higher value-added products. Note also that on the imports side, the share of raw materials increased, which is conducive to the conclusion that the sector imports raw materials and exports higher value-added products. Computer manufacturing (sector 26 in NACE Rev. 2) came next, where the share of capital goods increased by 4.5 percentage points, followed by other manufacturing activities (jewellery, musical instruments, medical supplies, sports gear etc. – branch 21 of NACE Rev. 2) with 1.5 points. The sectors that experienced a large drop in the exports of capital goods, as a percentage of their total exports are on the other end of the spectrum. The manufacture of other transportation equipment (ships, vessels, aircraft, etc. – branch 30 of NACE Rev. 2) came first, with 13 points drop, followed by the manufacture of rubber and plastics (branch 22 of NACE 2 Rev.), where the share of exports in this category declined by 9.6 points.

In conclusion, the lack of change in the structure of exports of the Greek economy between 2016 and 2010 shows that it is still in a period of readjustment. Therefore, if this continues, there are possibilities for further impetus to economic activity and better long-term growth prospects, from branches producing high value-added products, which will focus on research and innovation.

Figure 3.24

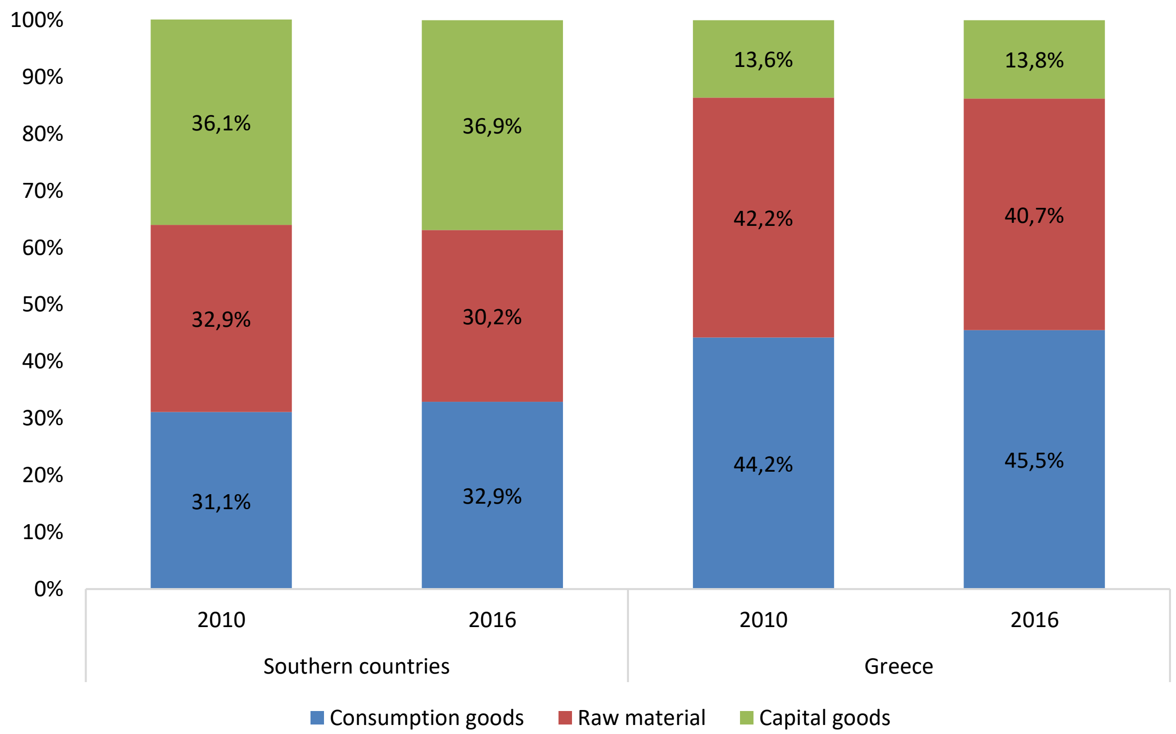
Imports-Exports of Goods and Services excluding fuels and ships (January – July) 2002-2017



Source: Bank of Greece, **Data processing:** IOBE

Figure 3.25

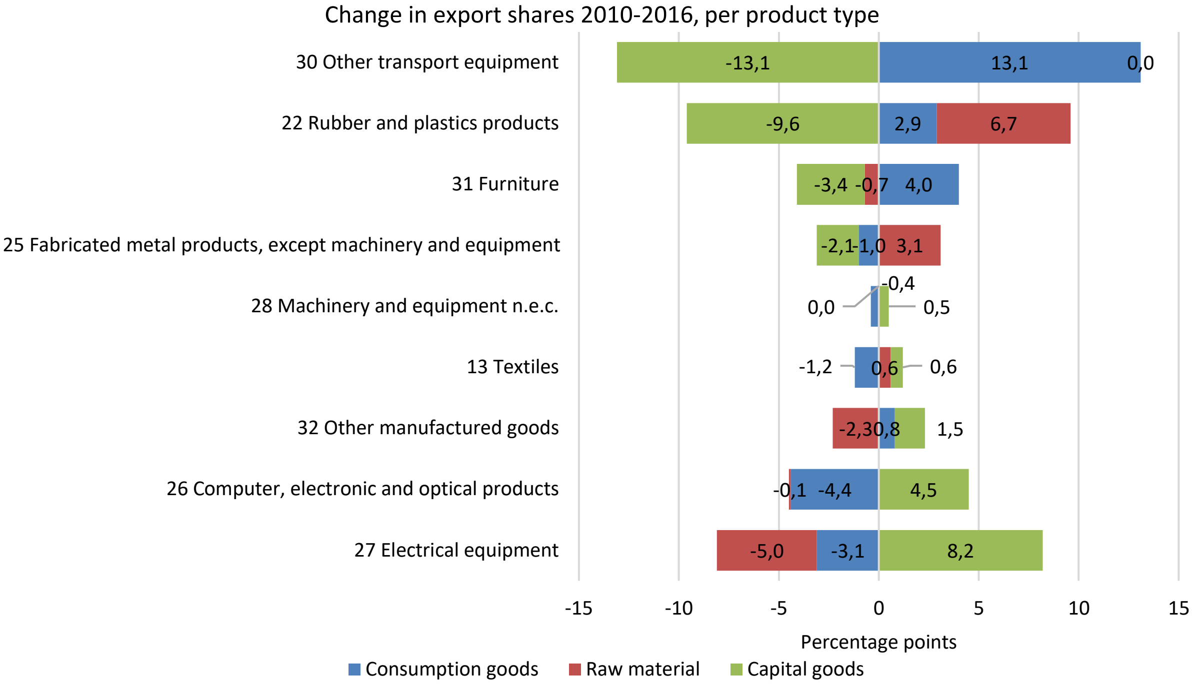
Composition of exports per product type, Southern Eurozone countries, 2010-2016



Source: Eurostat, EU Trade Since 1988 by BEC, **Data processing:** IOBE

Figure 3.26

Composition of exports per branch and product type, Greece, 2010-2016



Source: Eurostat, EU Trade Since 1988 by BEC, **Data processing: IOBE**

Table 3.11 Balance of Payments in million €

		January - July			July		
		2015	2016	2017	2015	2016	2017
I	**CURRENT ACCOUNT (I.A + I.B + I.C + I.D)**	**-1,209.3**	**-1,435.5**	**-1,225.8**	**2,530.7**	**1,356.1**	**1,569.4**
	GOODS AND SERVICES ACCOUNT (I.A + I.B)	**-983.0**	**-2,075.0**	**-2,206.4**	**2,541.0**	**1,715.2**	**1,732.6**
I.A	**GOODS ACCOUNT (I.A.1 - I.A.2)**	**-10,211.9**	**-9,558.6**	**-10,692.6**	**-633.7**	**-1,277.0**	**-1,508.7**
	Oil balance	-2,405.6	-1,348.6	-2,122.4	-226.9	-234.2	-285.8
	Trade balance excluding oil	-7,806.3	-8,210.1	-8,570.3	-406.8	-1,042.8	-1,222.8
	Ships balance	-354.2	-104.1	-145.1	0.0	-21.4	-8.0
	Trade balance excluding ships	-9,857.7	-9,454.6	-10,547.5	-633.7	-1,255.6	-1,500.7
	Trade balance excluding oil and ships	-7,452.1	-8,106.0	-8,425.2	-406.8	-1,021.4	-1,214.8
I.A.1	**Exports**	**14,838.4**	**13,776.4**	**16,123.7**	**2,237.8**	**2,171.8**	**2,345.3**
	Oil	3,958.5	3,129.6	4,546.1	565.8	500.8	596.9
	Ships (sales)	157.6	114.2	79.1	0.0	6.6	8.2
	Goods excluding oil and ships	10,722.3	10,532.6	11,498.5	1,672.0	1,664.4	1,740.2
I.A.2	**Imports**	**25,050.3**	**23,335.0**	**26,816.3**	**2,871.4**	**3,448.8**	**3,854.0**
	Oil	6,364.1	4,478.1	6,668.4	792.7	735.0	882.7
	Ships (buying)	511.8	218.2	224.2	0.0	28.0	16.2
	Goods excluding oil and ships	18,174.4	18,638.6	19,923.7	2,078.7	2,685.8	2,955.0
I.B	**SERVICES ACCOUNT (I.B.1-I.B.2)**	**9,228.9**	**7,483.7**	**8,486.2**	**3,174.7**	**2,992.2**	**3,241.2**
I.B.1	**Receipts**	**16,401.9**	**12,933.8**	**14,731.9**	**3,640.2**	**3,845.6**	**4,192.3**
	Travel	7,128.1	6,618.3	7,038.7	2,956.8	2,777.4	2,925.2
	Transportation	6,895.4	4,277.4	5,053.8	470.7	683.0	814.2
	Other services	2,378.4	2,038.2	2,639.4	212.7	385.2	453.0
I.B.2	**Payments**	**7,173.0**	**5,450.2**	**6,245.7**	**465.5**	**853.4**	**951.1**
	Travel	1,148.2	1,151.2	1,129.8	182.2	211.0	190.2
	Transportation	3,680.2	2,483.3	2,859.9	208.4	359.2	421.2
	Other services	2,344.6	1,815.7	2,256.0	75.0	283.2	339.7
I.C	**PRIMARY INCOME ACCOUNT (I.C.1-I.C.2)**	**211.0**	**704.3**	**996.2**	**4.4**	**-247.9**	**-98.3**
I.C.1	**Receipts**	**4,730.4**	**4,449.5**	**4,628.3**	**390.0**	**358.1**	**462.7**
	From work (wages, compensation)	104.8	75.6	87.1	8.4	12.4	19.0
	From investments (interest, dividends, profit)	2,519.3	2,011.5	2,412.8	323.3	276.0	332.1
	Other primary income	2,106.4	2,362.5	2,128.4	58.4	69.7	111.6
I.C.2	**Payments**	**4,519.4**	**3,745.2**	**3,632.1**	**385.7**	**606.0**	**561.0**
	From work (wages, compensation)	305.2	130.7	159.3	3.3	22.0	22.6
	From investments (interest, dividends, profit)	4,010.3	3,345.8	3,217.8	369.7	556.7	514.7
	Other primary income	204.0	268.8	255.0	12.6	27.3	23.7
I.D	**SECONDARY INCOME ACCOUNT (I.D.1-I.D.2)**	**-437.3**	**-64.8**	**-15.6**	**-14.7**	**-111.2**	**-64.8**
I.D.1	**Receipts**	**1,238.3**	**1,210.5**	**1,325.1**	**75.1**	**91.0**	**126.3**
	General government	702.1	787.5	709.5	19.5	23.2	37.2
	Other sectors	536.2	423.0	615.6	55.6	67.8	89.1
I.D.2	**Payments**	**1,675.6**	**1,275.3**	**1,340.7**	**89.8**	**202.2**	**191.1**
	General government	1,155.8	968.4	940.6	71.6	154.7	134.3
	Other sectors	519.8	306.9	400.1	18.2	47.5	56.8
II	**CAPITAL ACCOUNT (II.1-II.2)**	**608.8**	**642.3**	**371.8**	**2.4**	**-3.1**	**27.7**
II.1	**Receipts**	**820.2**	**783.1**	**463.8**	**2.7**	**5.9**	**35.5**
	General government	786.9	753.3	424.4	0.4	0.5	29.2
	Other sectors	33.2	29.8	39.4	2.3	5.3	6.3
II.2	**Payments**	**211.4**	**140.8**	**92.0**	**0.3**	**9.0**	**7.9**
	General government	3.6	1.0	1.7	0.0	0.2	0.2
	Other sectors	207.8	139.8	90.3	0.3	8.8	7.7
	BALANCE OF CURRENT AND CAPITAL ACCOUNT (I+II)	***-600.5***	***-793.2***	***-853.9***	***2,533.1***	***1,352.9***	***1,597.1***
III	**FINANCIAL ACCOUNT (III.A+III.B+III.C+III.D)**	**-372.0**	**-582.4**	**-2,161.1**	**2,100.0**	**947.3**	**1,008.9**
III.A	**DIRECT INVESTMENT***	**590.8**	**-1,907.9**	**-1,670.6**	**182.1**	**30.1**	**-58.8**
	Assets	1,156.2	-1,021.9	638.5	207.1	167.8	120.7
	Liabilities	565.4	886.0	2,309.1	25.0	137.7	179.5
III.B	**PORTFOLIO INVESTMENT****	**3,962.1**	**7,519.8**	**460.7**	**4,531.8**	**6,918.8**	**739.6**
	Assets	-2,969.4	5,190.7	-3,698.9	1,150.8	4,873.7	-2,859.6
	Liabilities	-6,931.5	-2,329.0	-4,159.6	-3,381.0	-2,045.1	-3,599.2
III.C	**OTHER INVESTMENT***	**-4,825.0**	**-6,811.8**	**-525.2**	**-2,829.8**	**-6,041.6**	**580.0**
	Assets	21,507.9	-8,835.4	-7,194.1	-1,717.3	-3,578.6	-1,517.5
	Liabilities	26,332.8	-2,023.6	-6,668.9	1,112.6	2,463.0	-2,097.6
	(Loans of general government)	413.4	4,274.1	4,665.9	5,009.1	-566.9	7,239.4
III.D	**CHANGE IN RESERVE ASSETS*****	**-100.0**	**617.5**	**-426.0**	**216.0**	**40.0**	**-252.0**
IV	**BALANCE ITEMS (I +II +IV +V = 0)**	**228.5**	**210.8**	**-1,307.2**	**-433.1**	**-405.7**	**-588.2**
	RESERVE ASSETS (STOCK)***				**5,119**	**6,904**	**5,982**

Source: Bank of Greece
* (+) Increase (-) decrease - According to the new balance of payments methodology training BPM6, increases in demand are presented with a positive sign while the decrease in receivables is displayed with a negative sign. Similarly, the increase in liabilities is captured with a positive sign, while the reduction of liabilities with a negative sign. ** (+) Increase (-) decrease - According to the new balance of payments methodology training BPM6, the increase in foreign reserves is now presented with a positive sign, while the reduction of foreign exchange reserves with a negative sign. *** Reserve assets, as defined by the European Central Bank, include only monetary gold, the "reserve position" with the IMF, "Special Drawing Rights" and the claims of the Bank of Greece in foreign currency from residents of countries outside the euro area. Conversely, they do not include claims in euro from residents of countries outside the euro area, claims in foreign currency and in euros from residents of euro area countries and the participation of the Bank of Greece in the capital and the reserve assets of the ECB.

4. Tertiary education in Greece: Effects of the crisis and challenges[24]

4.1 Introduction

The Greek higher education sector expanded significantly in recent decades, with the creation of institutions, faculties and departments at central and regional level. It is one of the most open systems in Europe and internationally, giving access to more than 60% of the youth of every generation. At the same time, the higher education in Greece remains one of the most centralised systems in Europe and the ability of the institutions to devise their strategy remains limited.

The study summarised in this chapter is an overview, recording and documentation of the impact of the Greek economic crisis and its management on the tertiary education system. It examines the evolution and the changes that have occurred in the basic characteristics and activities of higher education institutions, after the outbreak of the economic crisis. In addition, the study includes a detailed set of recommendations and policy proposals for the effective response to the challenges faced in the context of the formulation of a national plan to exit the crisis and return to long-term sustainable and strong growth.

4.2 Evolution and changes in the key operating figures of the institutions

The tertiary education sector expanded significantly over the past decades (1973-2015) with a large increase in the number of students in universities and Technical Educational Institutions (TEI), but not in other technical-vocational schools. In particular, their number has more than doubled from the 84,600 in the academic year 1973-1974 to 191,000 in the academic year 2015-2016. The largest increase occurred in the period 1995-2005 (Figure 4.1). The number of new students in universities has continued to increase after the outbreak of the crisis as well (an increase of 19% between 2008 and 2015).

The expansion of the tertiary education was accompanied by an increase in the number of institutions, faculties and departments at central and regional level. The attempted restructuring plan "ATHINA" had little impact, mainly on the number of TEI departments. Despite the overall increase of students in all scientific fields, low cost fields (such as social sciences, economics, law and humanities) in the university sector experienced the largest growth.

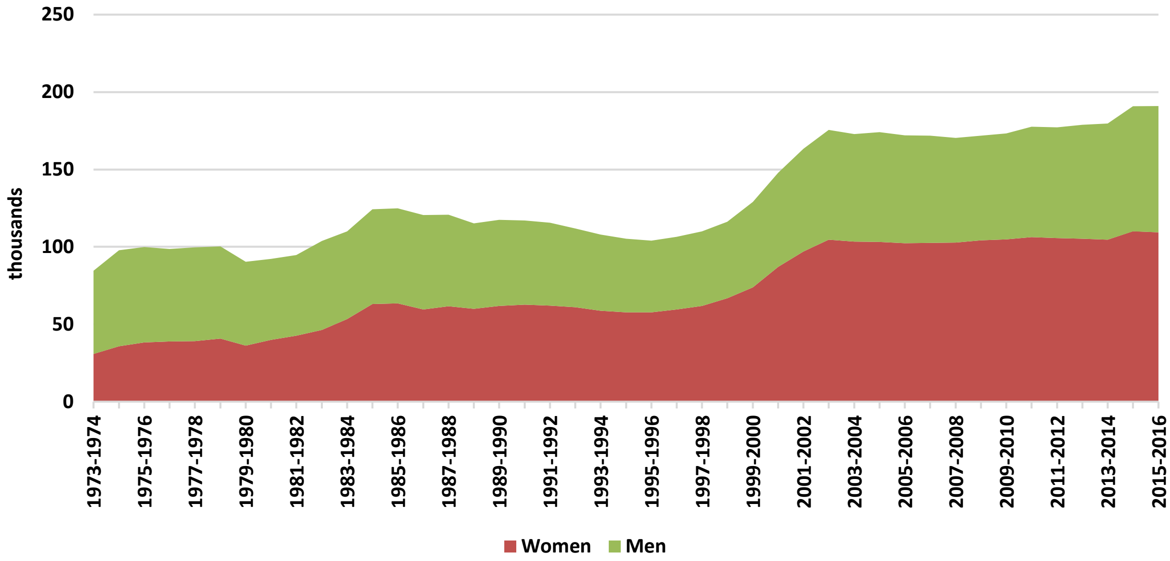
Based on the number of students, Greece ranks among the most open systems of higher education internationally. Greece comes first among the 28 EU countries, based on the percentage of the population that is registered at a college of higher education, which

[24] The full text of the study is available on the website of IOBE (http://iobe.gr/research_dtl.asp?RID=147).

amounts to 6.2%, when in France, Germany and United Kingdom it amounted to 3.6% and in Italy to 3.0% (Figure 4.2).

Figure 4.1

Evolution of the number of HEI students, 1973-2015

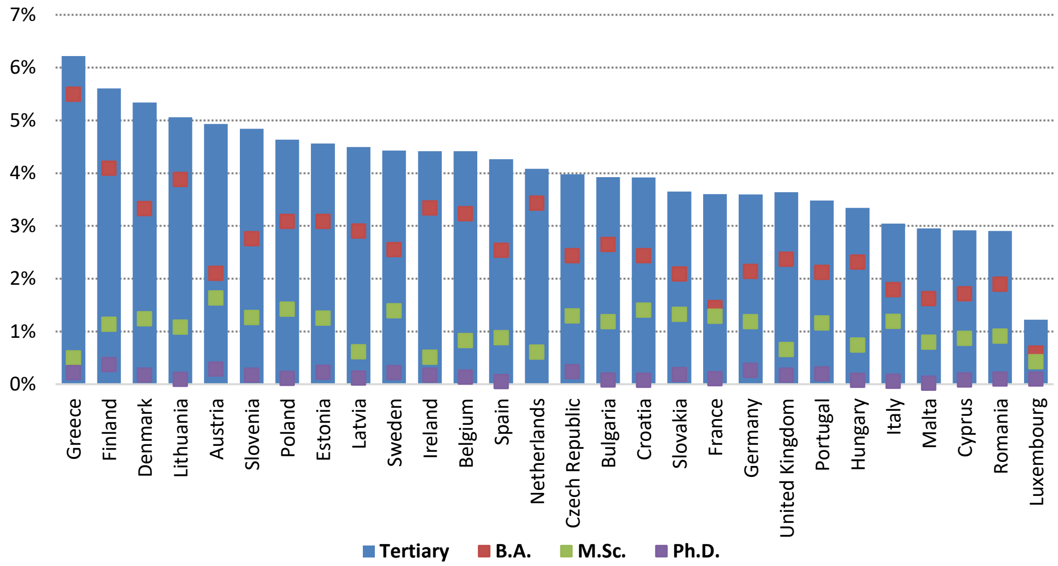


Source: ELSTAT

However, it seems that in recent years the rate of timely completion of studies has declined, especially in the regional institutions. Indicatively, in seven universities, only 68% of the students that started in 2004 had completed their studies 12 years later (in 2016), while the rates for those that entered university in 2005 and 2006 is 64% and 60% respectively.

Figure 4.2

Percentage of population in the EU-28 countries, enrolled at a college of higher education, by level of education, 2014



Source: Eurostat

From the mid 1990's in the universities, and from 2005 in the TEI, the number of postgraduate students has increased rapidly, yet it remains among the lowest in the EU-28 as a percentage of the population. In the universities, the postgraduate students tripled between 2002 and 2015, although the growth rate slowed down after 2008 (from 88% between 2002 and 2007 to 40% between 2009 and 2015). Despite the increase, Greece came last in the standings based on the percentage of its population who received a postgraduate title, among the EU-28 member states in 2014.

The doctoral degree holders also increased rapidly, especially after 2000. The number of doctoral students between 2000 and 2015 doubled, with a small growth in the share of women. Based on the number of PhD students in the population, Greece ranks high in Europe. However, the growth has slowed after the outbreak of the crisis, as it decreased from 51% between 2000 and 2007 to 10% among 2008 and 2015.

In short, after a long period of continuous expansion, all the key figures that determine the functioning of the higher education system have undergone considerable changes since the onset of the crisis. The number of new entrants in the universities, which continued to rise after the start of the crisis, was an exception to this trend. The small correction of the size of the higher education system with the project "ATHINA" focused mainly on the number of TEI departments, which on several occasions, were not abolished but turned into distinct directions (at the introductory or advanced level) within other departments.

The number of (new) students, teachers and educational units (institutions, faculties, departments) within the Greek centralised system is determined by the State. The administrations of the institutions do not have powers to decide their internal organisation and structure into faculties, departments, directions/fields and their strategic capability is limited, with the exception of increased – compared with the undergraduate studies – degree of freedom in the organisation of their graduate programmes. The educational institutions' strategic planning, organisational flexibility and administrative decision-making capacity is limited.

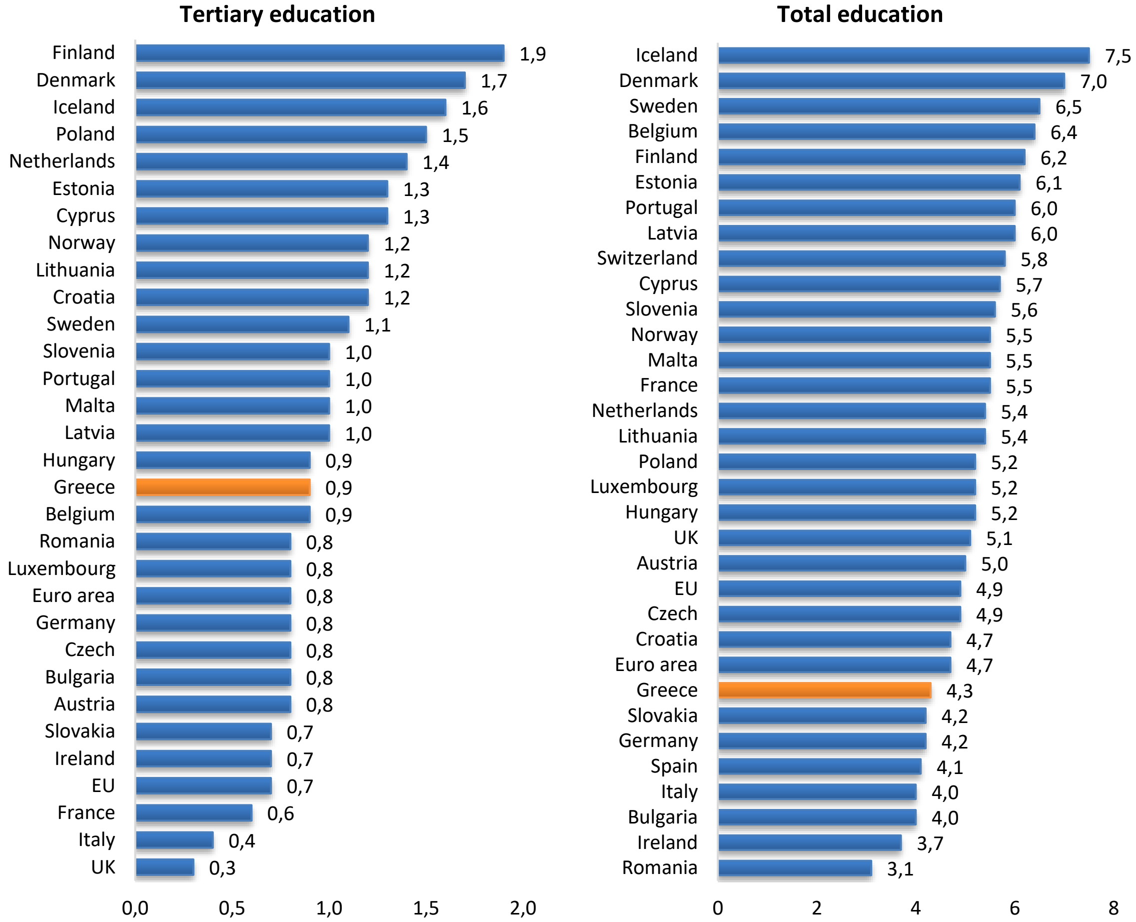
4.3 Finance and management

The effects of the crisis are particularly evident in the financing of higher education. After a period of strong growth (150% between 2001 and 2009), total funding has decreased significantly (24% between 2010 and 2014). This decrease is less pronounced than the reduction at the General Government level as a whole after 2010 (31%), but it is stronger than the corresponding decrease of total education (20%). As a result of the reduction of the total cost, the per student expenditure, which had increased substantially between 2001 and 2008, decreased significantly thereafter (from 3,200 in 2001 and 7,600 in 2008 to 5,400 in 2014).

Despite the cuts during the crisis, Greece ranked slightly above the average of the European Union and the Euro area in 2015 in terms of total expenditure on tertiary education as a percentage of GDP (0.9% against 0.7% and 0.8% respectively), due also to the large reduction of GDP (Figure 4.3). However, the expenditure on education as a whole as a percentage of GDP in Greece (4.3%) fell short of the averages of the EU (4.9%) and the Euro area (4.7%).

Figure 4.3

Total cost of tertiary education and total education as a percentage of GDP in European countries, 2015



Source: Eurostat, General government expenditure by function (COFOG) **Data processing: IOBE**

The total funding of the higher education institutions has also changed qualitatively and has become more uncertain, depending now more on non-stable sources of funding, domestic and European. In particular, the funding from permanent sources, such as the operating expenses from the ordinary budget (66% reduction between 2009 and 2015), and the salary expense of permanent staff (by about 20% between 2009 and 2014), has declined. At the same time, the own funds of universities, which mainly come from research and educational activities, increase significantly (by 47% between 2011 and 2015). In contrast, significant losses occurred in the real estate management of the universities.

Despite these cuts in State funding, the change in the composition of total funding, and the strengthening of the uncertainty in the funding of the higher education institutions from domestic and European sources, the procedures for the allocation of public funding to the institutions have not changed significantly. In particular, no systematic procedures have been introduced to audit the operational results of the institutions, whereas the allocation of State funding is not connected with the degree of achievement of objectives and operational results. As a result, the annual funding of each institution is influenced primarily by annual fluctuations (growth-decline) of the total State funding, regardless of their operational results.

The limited autonomy of the financial management of the institutions that prevailed before the crisis (constrained from their constitutionally enshrined legal form as public sector entities) was reinforced after the outbreak of the crisis by the increased need for supervision as part of the implementation of the fiscal consolidation programmes in the country. Meanwhile, the governance of the overall system and the public scrutiny is exercised with traditional tools of preventive nature (legality checks).

4.4 Research and innovation in higher education

Greece falls short of the EU average in spending for R&D (0.96% against 2.03%, as a percentage of GDP). The lag of such expenditure in the business sector is particularly significant (0.28% against 1.3% of GDP in the EU in 2014). The lag in relation to the EU average was constraint to 0.10 percentage points of GDP when the comparison was limited to the field of higher education. Therefore, the Greek higher education institutions have a dominant position and increased importance for performing research in Greece, compared with many other countries.

As regards the scientific publications, after a period of steady increase, their growth slowed down after 2009 and turned to contraction since 2013.That said, the number of references continued to increase (faster than in the EU and OECD countries), while the country's performance in terms of the relative impact factor also improved, converging to the EU and OECD averages. The lack of openness of the domestic institutions, however, is intense, as a relatively small percentage of publications are prepared in collaboration with private sector entities.

Because of the lack of openness of the education institutions and the low involvement of the private sector with R&D, the generation of innovation lags considerably in Greece. The summary innovation indicator for Greece declined to 0.36 units in 2015 (from 0.40 in 2014 and 0.37 in 2008). In the EU, the index stood at 0.52 units in 2015, from 0.50 in 2008. Greece lags behind in all eight composite innovation indicators.

The largest gap is observed in the composite indicator measuring production innovation in terms of patents, Community trademarks and Community designs. The value of this indicator for Greece was lower than the EU average by 56.3%. In the rankings based on this indicator, the country is in the 29th position among 36 European countries with available data.

The smallest gap between Greece and the EU average is observed in the composite indicator for human resources. Greece has a better-educated population in comparison with other countries of the South (such as Spain, Italy and Malta), Eastern (like Czech Republic, Poland and Estonia) and Southeast Europe (Bulgaria, Romania, Serbia and Turkey). However, it lags considerably behind the countries of Northern and Western Europe.

4.5 Tertiary education and employment of graduates

The analysis of the data of the labour force survey shows that the mismatch between the skills of tertiary education graduates, which predates the crisis, has increased significantly since 2009. The great expansion of tertiary education and the opening of the access to it on one hand, and the outward migration of students who have returned, on the other, in the past few decades, have resulted in a great increase in the number of tertiary education graduates in the country (between 2000 and 2016 it almost doubled from 1.1 million to 2.04 million). They account for 24% of the total population, the same as the EU average.

Out of the 2.04 million tertiary education graduates, 63% (or 1.3 million people) work, 13% (or 274,000 people) are unemployed and the remaining 24% (or 484,000 people) are not economically active (i.e. retirees or people who are not looking for work). Of the 3.7 million employees in 2016, 1.29 million (or 35% of the total) have a Bachelor's degree or graduate studies in higher education, while a similar number of employees have upper secondary education (1.28 million or 34%).

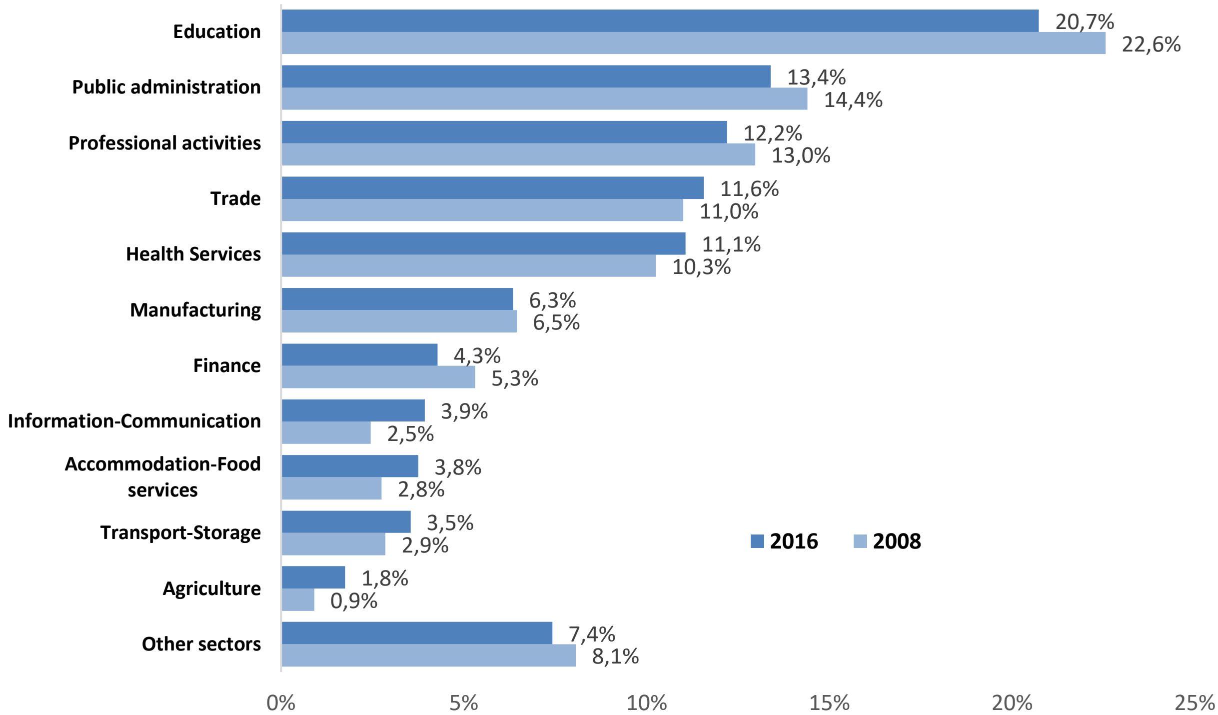
The highest employment rate (i.e. the percentage of the working age population that are employed) was recorded among people with postgraduate or doctorate studies (79%). Among graduates of universities or TEI who have not pursued postgraduate studies, the corresponding rate was lower by 18 percentage points in 2016, also falling in recent years (to 61% in 2016 from 75% in 2009). The employment rate of tertiary education graduates in Greece is the lowest among the EU member states.

Although the highest unemployment rate was recorded among those with post-secondary and lower secondary education (27.7% and 27.4% in 2016), among the people with higher education, the unemployment rate rose by 11 percentage points (from 7% in 2009 at 18.3% in 2016). Correspondingly, the share of unemployed persons with tertiary education (in total unemployment) noted a significant increase (from 14.7% in 2001, to 24.6% in 2016). Therefore, the increase in the number of higher education graduates in recent years has not been accompanied by a corresponding increase in their absorption by the labour market, intensifying the mismatch.

Most graduates are working in Services (Figure 4.4). Their participation in sectors producing internationally tradable goods, such as manufacturing and agriculture-livestock is small. The education sector absorbs the largest number of graduates (266,700 in 2016, corresponding to 21% against 23% of the total in 2008), particularly among the graduates of universities where it employs ¼ of the total. Public Administration-Defence, a core public services sector, comes next (172,300 in 2016, corresponding to 13% against 14% of the total in 2008), with the share of university graduates lagging that of TEI (10.6% versus 17.6%). These percentages vary considerably from the EU average (16% in Education, and 9% in Public Administration-Defence).

Figure 4.4

Composition of the employed with tertiary education per sector of economic activity



Source: ELSTAT **Data processing: IOBE**

Most tertiary education graduates are employed in private sector firms. The share of university graduates, however, is higher in the public sector (62% vs. 28% of TEI). In the private sector, 55% of the employees with tertiary education are university graduates and 33% graduates of TEI. The largest share of employees with a Masters or PhD degree is recorded in enterprises controlled by the State and in public entities and organisations. After 2009, the graduates in the public sector decreased sharply (-27%), in contrast with the private sector, where the number of graduates increased (by 15%). The increase in the private sector came from growth of university graduates by 4% and TEI graduates by 26%.

The big rise in unemployment after 2009 has resulted in the forming of a large stock of knowledge and skills of tertiary education graduates (274,000) which remains untapped and threatened with erosion. The large stock of skills and the stronger "brain drain", from the perspective of public interest and public investment in higher education, place under review the desirability of the total size of the higher education system, as it stood before the crisis.

To support the development of the Greek economy and the building of a new growth model, the emphasis of the higher education provided in Greece and, particularly in the universities, should change. The education should refocus from that of, primarily, teachers and public servants, to that of skilled personnel in sectors producing internationally competitive primary sector and manufacturing goods and export-oriented services. For this shift to take place and for a better coordination of the provided tertiary education with the labour market, the following are necessary: a) Stronger organisational flexibility and administrative autonomy of the institutions; b) Boost of their strategic capacity; c) Support of the cooperation and interaction of the institutions with businesses, for better response to the needs of skills and human resources.

4.6 Challenges for higher education – Policy implications

The findings and conclusions of the study demonstrated that Greece, after a long period of great expansion, has one of the most open and accessible systems among the developed countries of the world. Today, however, the tertiary education system in Greece faces significant challenges. These challenges, although identified well before the outbreak of the crisis, have become more pressing as they pertain to a much greater extent than in the past to the preservation of the quality of the HEI at an internationally competitive level. The total funding and the faculty numbers – especially in TEI – have decreased, while the ageing of the faculty, due to hiring obstacles, and the reduced international competitiveness and attractiveness of the Greek HEI, which intensifies the drain of scientists abroad, has put further pressure on the system.

The importance of the HEI and the human capital that they create and offer for the competitiveness of the Greek economy, its sustained growth, and social cohesion make the effective tackle of the major challenges faced by the higher education sector, an issue of upmost importance for the Greek State.

In this regard, the study identifies three major challenges for higher education:

1. Improve the efficiency and effectiveness of public expenditure on higher education, streamlining its overall size, and regional composition

2. Improve the link of higher education and research with the labour market and entrepreneurship, changing the emphasis and orientation of teaching and research activities of the HEI, in collaboration with domestic and international businesses

3. Find alternative sources of funding, with openness, internationalisation, and better utilisation of property and new technologies

The study concludes with detailed policy options for addressing the above three major challenges for the higher education system (Tables 4.1-4.3).

Table 4.1

Policy options for finding alternative sources of funding

Actions	Policy options
Develop international programmes to attract foreign students (with tuition fees) in the Greek HEIs	Develop foreign language education programmes
	Link the funding of the institutions with the achievement of internationalisation targets
	Networking of the HEI for the international promotion of their programmes
	Promote the international programmes through a website (Study in Greece)
	Fast track the process of granting student visas electronically
	Facilitate the recognition of qualifications from third countries
	Decentralise the responsibility for the recognition of academic qualifications of international student candidates
	Full implementation of the Bologna reforms in the Greek HEIs
Improve the HEI resource management	Establish a private law entity at each HEI for the management of its resources, with professional management and strong accountability

Table 4.2

Policy options for improving the effectiveness of the higher education system

Actions	Policy options
Streamline the size of the system	Reduce the number of students enrolling in higher education to levels comparable with those of other European countries with a similar level of economic development
	Enhance the attractiveness of technical-professional secondary education
	Reduce the regulation of professional rights of graduates in regulated professions
	Separate the Bachelor degree from the initial training of secondary education teachers
Increase the rates of timely completion of studies	Restructure the advanced studies in 3 cycles, with the first cycle lasting 3 years, guaranteeing the right of participation in the second cycle programmes for all
	Introduce an administrative fee for registration and exams for the additional cost of the extension of studies beyond their stipulated duration
	Establish a maximum time limit for full-time studies, per programme, guaranteeing the possibility of part-time studies
	Make the (electronic) registration of all students each year and semester obligatory and expel students in case of repeated non-registration
	Establish two rounds of selecting HEI/School/Department, with a smaller number of options in each round
	Initial entry into a School or institution and subsequent entry into an education programme of scientific specialisation after the completion of the first year of studies
	Increase the student mobility and options, utilising the European Credit Transfer System (ECTS)
	Student and staff exchange programmes between institutions (Greek ERASMUS)
Extensive programme of HEI mergers (Institutions, Schools, Departments)	To achieve the objectives of the proposed mergers, the process should be based on: a) decisions of the institutions themselves; B b) evaluation of their proposals; c) participation of distinguished scientists from Greece and abroad in the evaluation; d) participation of representatives of businesses and the real economy; e) strengthening of the strategic capacity of the HEI by boosting their administrative and organisational autonomy and decision-making flexibility

Table 4.3

Policy options for linking higher education and research with the labour market

Actions	Policy options
Improve the functioning of the HEIs	Educational and organisational autonomy from the State
	Internal organisational flexibility
	Strengthening of the strategic capacity of the HEIs and facilitation of their decision-making process
	Assessment, transparency, and a strong and effective accountability of the administrative bodies
	Link funding to operational results (performance-based funding)
	Funding of centres of excellence in education and research
	Assignment to the HEIs themselves of the responsibility to determine the number of admissions per course of studies
	Flexibility of the curricula with expanded choices for the students
	Organisation and operation of a designated office in each HEI
	Continuous monitoring of the integration of graduates in the labour market
Collaboration of the HEIs with enterprises	Learning in the workplace of businesses as well
	Cooperation of HEIs and businesses to plan, organise, support and promote undergraduate and postgraduate programmes
	Organisation of specially designed training programmes to upgrade the skills of employees and business executives
	Strategic cooperation agreements between HEIs or groups of HEIs with enterprises or enterprise groups, especially with a local character
	Regular investigation of the needs of employers of graduates in knowledge and skills
	Cooperation of the liaison offices of the HEIs with the recruitment offices of businesses
	Participation of individuals with professional and business experience in the HEI governance
	Establishment of best practice awards for the cooperation of HEIs and enterprises
	Compilation of periodic thematic reports on the partnerships of HEIs with businesses
	Collection of comparable data of HEIs on the transition of undergraduates and holders of postgraduate diplomas to the job market
	Preparation of sectoral surveys on the needs in specialised knowledge and high skills in business and professional sectors
	Integration of the partnership of the HEIs with businesses in the evaluation criteria and performance indicators
	Full implementation of the national qualifications framework

5. APPENDIX: KEY ECONOMIC INDICATORS

Table 1: GDP growth

	Annual data (%)									
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Austria	3.6	1.5	-3.8	1.9	2.8	0.7	0.1	0.6	1	0.2
Belgium	3.4	0.7	-2.3	2.7	1.8	0.1	-0.1	1.7	1.5	0.7
Bulgaria	7.3	6	-3.6	1.3	1.9	0	0.9	1.3	3.6	4.1
France	2.4	0.2	-2.9	2	2.1	0.2	0.6	0.6	1.3	0.9
Germany	3.3	1.1	-5.6	4.1	3.7	0.5	0.5	1.6	1.7	0.6
Denmark	0.9	-0.5	-4.9	1.9	1.3	0.2	0.9	1.7	1.6	0.5
Czech Republic	5.5	2.7	-4.8	2.3	2	-0.8	-0.5	2.7	4.5	2.2
EU	3.1	0.4	-4.4	2.1	1.7	-0.5	0.2	1.6	2.2	1.5
Greece	3.3	-0.3	-4.3	-5.5	-9.1	-7.3	-3.2	0.4	-0.2	0.0
Estonia	7.7	-5.4	-14.7	2.3	7.6	4.3	1.4	2.8	1.4	1.4
Euro area	3	0.4	-4.5	2.1	1.5	-0.9	-0.3	1.2	2	1.4
United Kingdom	2.6	-0.6	-4.3	1.9	1.5	1.3	1.9	3.1	2.2	1.1
Ireland	3.8	-4.4	-4.6	2	0	-1.1	1.1	8.5	26.3	4.3
Spain	3.8	1.1	-3.6	0	-1	-2.9	-1.7	1.4	3.2	3.1
Italy	1.5	-1.1	-5.5	1.7	0.6	-2.8	-1.7	0.1	0.7	1.1
Croatia	5.2	2.1	-7.4	-1.7	-0.3	-2.2	-1.1	-0.5	1.6	3.5
Cyprus	4.8	3.9	-1.8	1.3	0.3	-3.2	-6	-1.5	1.7	2.2
Latvia	9.9	-3.6	-14.3	-3.8	6.2	4	2.9	2.1	2.7	2.8
Lithuania	11.1	2.6	-14.8	1.6	6	3.8	3.5	3.5	1.8	3.6
Luxemburg	8.4	-0.8	-5.4	5.8	2	0	4.2	4.7	3.5	1.6
Malta	4	3.3	-2.5	3.5	1.4	2.7	4.6	8.4	7.4	3.9
Netherlands	3.7	1.7	-3.8	1.4	1.7	-1.1	-0.2	1.4	2	1.6
Hungary	0.4	0.9	-6.6	0.7	1.7	-1.6	2.1	4	3.1	2.2
Poland	7	4.2	2.8	3.6	5	1.6	1.4	3.3	3.9	2.9
Portugal	2.5	0.2	-3	1.9	-1.8	-4	-1.1	0.9	1.6	1.7
Romania	6.9	8.5	-7.1	-0.8	1.1	0.6	3.5	3.1	3.9	5.1
Slovakia	10.8	5.6	-5.4	5	2.8	1.7	1.5	2.6	3.8	3.1
Slovenia	6.9	3.3	-7.8	1.2	0.6	-2.7	-1.1	3.1	2.3	2.4
Sweden	3.4	-0.6	-5.2	6	2.7	-0.3	1.2	2.6	4.1	2
Finland	5.2	0.7	-8.3	3	2.6	-1.4	-0.8	-0.7	0.2	1.1

Table 2: General Government Debt as % of GDP

	Annual data (%)									
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Austria	65.1	68.8	80.1	82.8	82.6	82	81.3	84.4	85.5	84.6
Belgium	87	92.5	99.5	99.7	102.3	104.1	105.6	106.7	106.0	105.9
Bulgaria	16.3	13	13.7	15.3	15.2	16.7	17.0	27.0	26.0	29.5
France	64.3	68	78.9	81.6	85.2	89.5	92.3	94.9	95.6	96.0
Germany	63.7	65.1	72.6	81	78.7	79.9	77.5	74.9	71.2	68.3
Denmark	27.3	33.4	40.4	42.9	46.4	45.2	44.0	44.0	39.6	37.8
Czech Republic	27.8	28.7	34.1	38.2	39.8	44.5	44.9	42.2	40.3	37.2
EU	65	68.6	78.4	83.8	86.1	89.5	85.7	86.7	84.9	83.5
Greece	103.1	109.4	126.7	146.2	172.1	159.6	177.4	179.7	177.4	179.0
Estonia	3.7	4.5	7	6.6	6.1	9.7	10.2	10.7	10.1	9.5
Euro area	57.5	60.7	72.8	78.4	81.1	83.8	91.4	92.0	90.3	89.2
United Kingdom	42	50.2	64.5	76	81.6	85.1	86.2	88.1	89.0	89.3
Ireland	23.9	42.4	61.7	86.3	109.6	119.5	119.5	105.3	78.7	75.4
Spain	35.5	39.4	52.7	60.1	69.5	85.7	95.5	100.4	99.8	99.4
Italy	99.8	102.4	112.5	115.4	116.5	123.3	129.0	131.8	132.1	132.6
Croatia	37.7	39.6	49	58.3	65.2	70.7	82.2	86.6	86.7	84.2
Cyprus	53.5	44.7	53.4	55.8	65.2	79.3	102.2	107.1	107.5	107.8
Latvia	8.4	18.7	36.6	47.4	42.8	41.3	39.0	40.9	36.5	40.1
Lithuania	15.9	14.6	28	36.2	37.2	39.8	38.7	40.5	42.7	40.2
Luxemburg	7.8	15.1	16	19.9	18.8	21.8	23.4	22.4	21.6	20.0
Malta	62.4	62.7	67.8	67.6	70	67.6	68.7	64.3	60.6	58.3
Netherlands	42.7	54.8	56.9	59.3	61.6	66.4	67.7	67.9	65.2	62.3
Hungary	65.6	71.6	77.8	80.5	80.7	78.2	76.6	75.7	74.7	74.1
Poland	44.2	46.3	49.4	53.1	54.1	53.7	55.7	50.2	51.1	54.4
Portugal	68.4	71.7	83.6	96.2	111.4	126.2	129.0	130.6	129.0	130.4
Romania	12.7	13.2	23.2	29.9	34.2	37.3	37.8	39.4	38.0	37.6
Slovakia	30.1	28.5	36.3	41.2	43.7	52.2	54.7	53.6	52.5	51.9
Slovenia	22.8	21.8	34.6	38.4	46.6	53.9	71.0	80.9	83.1	79.7
Sweden	39	37.5	41	38.3	37.5	37.8	40.4	45.2	43.9	41.6
Finland	34	32.7	41.7	47.1	48.5	53.9	56.5	60.2	63.7	63.6

Table 3: General Government Balance as % of GDP

	Annual data (%)									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	-1.4	-1.5	-5.4	-4.5	-2.6	-2.2	-1.4	-2.7	-1.1	-1.6
Belgium	0.1	-1.1	-5.4	-4.0	-4.1	-4.2	-3.1	-3.1	-2.5	-2.6
Bulgaria	1.1	1.6	-4.1	-3.1	-2.0	-0.3	-0.4	-5.5	-1.6	0.0
France	-2.5	-3.2	-7.2	-6.8	-5.1	-4.8	-4.0	-3.9	-3.6	-3.4
Germany	0.2	-0.2	-3.2	-4.2	-1.0	0.0	-0.2	0.3	0.7	0.8
Denmark	5.0	3.2	-2.8	-2.7	-2.1	-3.5	-1.0	1.4	-1.3	-0.9
Czech Republic	-0.7	-2.1	-5.5	-4.4	-2.7	-3.9	-1.2	-1.9	-0.6	0.6
EU	-0.9	-2.4	-6.6	-6.4	-4.6	-4.3	-3.3	-3.0	-2.4	-1.7
Greece	-6.7	-10.2	-15.1	-11.2	-10.3	-8.8	-13.1	-3.7	-5.9	0.7
Estonia	2.7	-2.7	-2.2	0.2	1.2	-0.3	-0.2	0.7	0.1	0.3
Euro area	-0.6	-2.2	-6.3	-6.2	-4.2	-3.6	-3.0	-2.6	-2.1	-1.5
United Kingdom	-2.9	-4.9	-10.2	-9.6	-7.6	-8.3	-5.6	-5.7	-4.3	-3.0
Ireland	0.3	-7.0	-13.8	-32.1	-12.6	-8.0	-5.7	-3.7	-2.0	-0.6
Spain	2.0	-4.4	-11.0	-9.4	-9.6	-10.5	-7.0	-6.0	-5.1	-4.5
Italy	-1.5	-2.7	-5.3	-4.2	-3.7	-2.9	-2.9	-3.0	-2.7	-2.4
Croatia	-2.4	-2.8	-6.0	-6.2	-7.8	-5.3	-5.3	-5.4	-3.4	-0.8
Cyprus	3.2	0.9	-5.4	-4.7	-5.7	-5.8	-5.1	-8.8	-1.2	0.4
Latvia	-0.7	-4.1	-9.1	-8.5	-3.4	-0.8	-1.0	-1.6	-1.3	0.0
Lithuania	-0.8	-3.1	-9.1	-6.9	-8.9	-3.1	-2.6	-0.7	-0.2	0.3
Luxemburg	4.2	3.4	-0.7	-0.7	0.5	0.3	1.0	1.4	1.4	1.6
Malta	-2.3	-4.2	-3.3	-3.2	-2.5	-3.6	-2.6	-2.0	-1.3	1.0
Netherlands	0.2	0.2	-5.4	-5.0	-4.3	-3.9	-2.4	-2.3	-2.1	0.4
Hungary	-5.1	-3.6	-4.6	-4.5	-5.5	-2.3	-2.6	-2.1	-1.6	-1.8
Poland	-1.9	-3.6	-7.3	-7.3	-4.8	-3.7	-4.1	-3.5	-2.6	-2.4
Portugal	-3.0	-3.8	-9.8	-11.2	-7.4	-5.7	-4.8	-7.2	-4.4	-2.0
Romania	-2.8	-5.5	-9.5	-6.9	-5.4	-3.7	-2.1	-1.4	-0.8	-3.0
Slovakia	-1.9	-2.4	-7.8	-7.5	-4.3	-4.3	-2.7	-2.7	-2.7	-1.7
Slovenia	-0.1	-1.4	-5.9	-5.6	-6.7	-4.1	-15.1	-5.4	-2.9	-1.8
Sweden	3.3	1.9	-0.7	-0.1	-0.2	-1.0	-1.4	-1.5	0.3	0.9
Finland	5.1	4.2	-2.5	-2.6	-1.0	-2.2	-2.6	-3.2	-2.7	-1.9

Table 4: Share of population at risk of poverty or social exclusion

	Annual data (%)									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	16.7	20.6	19.1	18.9	19.2	18.5	18.8	19.2	18.3	18.0
Belgium	21.6	20.8	20.2	20.8	21	21.6	20.8	21.2	21.1	20.7
Bulgaria	60.7	44.8	46.2	49.2	49.1	49.3	48	40.1	41.3	40.4
France	19	18.5	18.5	19.2	19.3	19.1	18.1	18.5	17.7	:
Germany	20.6	20.1	20	19.7	19.9	19.6	20.3	20.6	20	:
Denmark	16.8	16.3	17.6	18.3	17.6	17.5	18.3	17.9	17.7	16.7
Czech Republic	15.8	15.3	14	14.4	15.3	15.4	14.6	14.8	14	13.3
EU	:	:	:	23.7	24.3	24.7	24.6	24.4	23.7	:
Greece	28.3	28.1	27.6	27.7	31	34.6	35.7	36	35.7	35.6
Estonia	22	21.8	23.4	21.7	23.1	23.4	23.5	26	24.2	24.4
Euro area	21.9	21.7	21.6	22	22.9	23.3	23.1	23.5	23	:
United Kingdom	22.6	23.2	22	23.2	22.7	24.1	24.8	24.1	23.5	22.2
Ireland	23.1	23.7	25.7	27.3	29.4	30	29.5	27.6	26	:
Spain	23.3	23.8	24.7	26.1	26.7	27.2	27.3	29.2	28.6	27.9
Italy	26	25.5	24.9	25	28.1	29.9	28.5	28.3	28.7	:
Croatia	:	:	:	31.1	32.6	32.6	29.9	29.3	29.1	28.5
Cyprus	25.2	23.3	23.5	24.6	24.6	27.1	27.8	27.4	28.9	:
Latvia	35.1	34.2	37.9	38.2	40.1	36.2	35.1	32.7	30.9	28.5
Lithuania	28.7	28.3	29.6	34	33.1	32.5	30.8	27.3	29.3	30.1
Luxemburg	15.9	15.5	17.8	17.1	16.8	18.4	19	19	18.5	:
Malta	19.7	20.1	20.3	21.2	22.1	23.1	24	23.8	22.4	:
Netherlands	15.7	14.9	15.1	15.1	15.7	15	15.9	16.5	16.4	16.8
Hungary	29.4	28.2	29.6	29.9	31.5	33.5	34.8	31.8	28.2	26.3
Poland	34.4	30.5	27.8	27.8	27.2	26.7	25.8	24.7	23.4	21.9
Portugal	25	26	24.9	25.3	24.4	25.3	27.5	27.5	26.6	:
Romania	47	44.2	43	41.5	40.9	43.2	41.9	40.3	37.4	38.8
Slovakia	21.4	20.6	19.6	20.6	20.6	20.5	19.8	18.4	18.4	18.1
Slovenia	17.1	18.5	17.1	18.3	19.3	19.6	20.4	20.4	19.2	18.4
Sweden	13.9	14.9	15.9	15	16.1	15.6	16.4	16.9	16	18.3
Finland	17.4	17.4	16.9	16.9	17.9	17.2	16	17.3	16.8	16.6

Table 5: Inflation

	Annual data (%)			Q2			Change (%)	
	2014	2015	2016	2015	2016	2017	2016/15	2017/16
Austria	1.5	0.8	1.0	1.0	0.6	2.1	-0.4	1.5
Belgium	0.5	0.6	1.8	0.7	1.6	2.0	0.9	0.4
Bulgaria	-1.6	-1.1	-1.3	-0.6	-2.3	1.4	-1.7	3.7
France	0.6	0.1	0.3	0.2	0.1	1.0	-0.1	0.9
Germany	0.8	0.1	0.4	0.4	0.0	1.6	-0.4	1.7
Denmark	0.4	0.2	0.0	0.4	-0.1	0.7	-0.5	0.8
Czech Republic	0.4	0.3	0.7	0.7	0.1	2.3	-0.6	2.2
EU	0.5	0.0	0.2	0.1	-0.1	1.7	-0.2	1.8
Greece	-1.4	-1.1	0.0	-1.4	-0.1	1.3	1.3	1.5
Estonia	0.5	0.1	0.8	0.4	0.1	3.4	-0.3	3.3
Euro area	0.4	0.0	0.2	0.2	-0.1	1.5	-0.2	1.6
United Kingdom	1.5	0.1	0.6	0.0	0.4	2.7	0.4	2.4
Ireland	0.3	0.0	-0.2	0.1	-0.1	0.0	-0.2	0.1
Spain	-0.2	-0.6	-0.3	-0.3	-1.1	2.1	-0.7	3.1
Italy	0.2	0.1	0.0	0.1	-0.3	1.6	-0.4	1.9
Croatia	0.2	-0.3	-0.6	0.0	-1.1	1.2	-1.1	2.3
Cyprus	-0.3	-1.5	-1.2	-1.8	-2.0	1.3	-0.2	3.3
Latvia	0.7	0.2	0.1	0.8	-0.7	3.0	-1.5	3.7
Lithuania	0.2	-0.7	0.7	-0.3	0.5	3.4	0.7	2.9
Luxemburg	0.7	0.1	0.0	0.3	-0.5	2.0	-0.8	2.5
Malta	0.8	1.2	0.9	1.3	0.9	1.1	-0.3	0.1
Netherlands	0.3	0.2	0.1	0.4	-0.2	1.0	-0.6	1.2
Hungary	0.0	0.1	0.5	0.4	0.0	2.1	-0.4	2.1
Poland	0.1	-0.7	-0.2	-0.6	-0.4	1.5	0.2	2.0
Portugal	-0.2	0.5	0.6	0.8	0.5	1.7	-0.2	1.2
Romania	1.4	-0.4	-1.1	0.3	-2.1	0.6	-2.4	2.7
Slovakia	-0.1	-0.3	-0.5	-0.1	-0.6	1.0	-0.5	1.6
Slovenia	0.4	-0.8	-0.2	-0.9	-0.4	1.4	0.5	1.8
Sweden	0.2	0.7	1.1	0.6	1.0	1.9	0.4	0.9
Finland	1.2	-0.2	0.4	0.0	0.3	0.9	0.3	0.6

Table 6: GDP per capita (in PPS, EU=100)

	Annual data (%)								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	124	126	126	128	131	131	130	128	126
Belgium	116	118	121	120	121	120	120	119	118
Bulgaria	43	44	45	45	46	46	46	47	48
France	107	108	108	108	107	109	107	106	105
Germany	117	117	120	123	124	124	125	124	123
Denmark	125	125	129	128	127	128	127	127	125
Czech Republic	84	85	83	83	83	84	86	87	88
EU	100	100	100	100	100	100	100	100	100
Greece	93	94	85	75	72	72	70	68	67
Estonia	69	64	65	71	74	75	76	75	74
Euro area	109	109	108	108	107	107	107	106	106
United Kingdom	109	107	107	105	107	107	109	108	108
Ireland	134	129	130	131	132	133	137	177	177
Spain	101	101	96	93	91	90	90	90	92
Italy	107	106	104	104	102	99	97	96	96
Croatia	63	62	59	60	60	59	59	58	59
Cyprus	106	105	100	96	91	84	81	82	81
Latvia	59	52	53	57	60	62	64	64	65
Lithuania	63	56	60	66	70	73	75	75	75
Luxemburg	259	250	256	263	259	261	267	264	267
Malta	79	81	84	83	84	86	86	88	95
Netherlands	139	137	134	133	133	134	131	128	128
Hungary	62	64	64	66	65	67	68	68	67
Poland	55	60	62	65	67	67	68	69	69
Portugal	81	82	82	77	75	77	77	77	77
Romania	49	50	52	52	54	55	55	57	59
Slovakia	71	71	74	75	76	77	77	77	77
Slovenia	90	85	83	83	82	81	83	83	83
Sweden	127	123	125	126	127	125	124	124	124
Finland	121	117	116	117	115	113	111	109	109

Table 7: Average labour productivity (euro per hour worked, EU=100)

	Annual data								
	2008	2009	2010	2011	2012	2013	2014	2015	2016
Austria	115.8	115.7	114.7	114.6	116.3	116.2	115.6	115	115.4
Belgium	128.4	129.8	131.4	129.8	130.9	130.2	131	130.1	129.3
Bulgaria	39.4	39.5	41.3	42.2	43.6	43	43.5	44.2	45.1
France	116.6	117.6	117.1	116.7	115	116.3	115.4	115.3	115
Germany	107	104.3	105.2	106.5	105.4	104.8	106.2	106	105.8
Denmark	107.7	109.7	115.3	114.7	114.5	115.4	114.8	114.5	113.4
Czech Republic	77.6	79.1	77	77.4	76.2	76.7	79.3	80	79.6
EU	100	100	100	100	100	100	100	100	100
Greece	98.5	98.2	89.6	85.6	86	87.1	85.6	82.6	81
Estonia	66.1	66.7	70.6	72.1	73.4	73.2	73.7	71.1	70.9
Euro area	108.6	108.7	107.9	107.8	107.2	107.3	107.3	107.2	106.9
United Kingdom	105.3	103.2	103.2	101.4	101.7	101.3	101.7	101.2	100.9
Ireland	130.7	134.9	140.8	143.6	145.1	141.6	145.1	186	184.2
Spain	100.9	105.6	102	101.3	103.2	103.5	103.2	101.5	101.8
Italy	115	115	112.9	112.3	110.2	108.8	107.7	107.4	106.7
Croatia	70.6	68.5	67.1	70.1	72.4	73.1	70.3	68.8	70.6
Cyprus	95	95.4	91.6	90	88.7	86.8	85.2	85.2	83.1
Latvia	56.1	56.2	58.8	61.4	62.8	62.4	64.5	64.5	65.6
Lithuania	65.1	61.3	67.2	71.4	73.1	74.3	74.5	73.2	72.1
Luxemburg	167.6	160	161.8	165.4	161.6	163.2	167.8	166.3	168.9
Malta	94	96.9	97.1	91.8	90.3	89.5	90.2	92.2	93.1
Netherlands	118.4	115.8	113.5	112.2	112	113.9	112.9	111.1	112.4
Hungary	70.3	72.2	72.7	73.8	72.5	72.9	71	70.3	68.1
Poland	62.1	65.4	70.2	72.7	74.1	74	73.9	74.3	75.2
Portugal	77.5	79.6	79.9	76.5	76.8	79.7	79	78.2	77.9
Romania	50	49.9	51.1	51.9	55.7	56.3	57	59.4	62.6
Slovakia	79.4	79.3	83.6	81.6	82.5	83.8	84.1	83.3	82
Slovenia	83.8	80.2	79.6	80.8	80.1	79.8	81.7	81.5	80.9
Sweden	118.3	116.4	116.8	116.3	116.4	114.2	113	113.4	114
Finland	114	111.4	111.1	111.4	109.2	108	106.9	106.9	107.8

Table 8: Employment rate of workers aged 20-64 (*)

	Annual data (%)			Q2			Change (%)	
	2014	2015	2016	2015	2016	2017	2017/16	2016/15
Austria	74.2	74.3	74.8	74.2	74.9	75.7	0.8	0.7
Belgium	67.3	67.2	67.7	66.7	67.3	68.2	0.9	0.6
Bulgaria	65.1	67.1	67.7	66.6	68.0	71.7	3.7	1.4
France	69.4	69.5	70.0	69.7	70.2	71.0	0.8	0.5
Germany	77.7	78.0	78.7	77.7	78.3	79.0	0.7	0.6
Denmark	75.9	76.5	77.4	76.4	77.7	76.8	-0.9	1.3
Czech Republic	73.5	74.8	76.8	74.8	76.5	78.2	1.7	1.7
EU	69.2	70.1	71.1	69.9	71.1	72.3	1.2	1.2
Greece	53.3	54.9	56.2	55.1	56.6	58.2	1.6	1.5
Estonia	74.3	76.5	76.6	76.2	77.7	77.7	0.0	1.5
Euro area	68.1	68.8	69.9	68.9	69.9	70.9	1.0	1.0
United Kingdom	76.2	76.9	77.6	76.5	77.5	78.2	0.7	1.0
Ireland	67.0	68.8	70.3	68.6	70.0	71.6	1.6	1.4
Spain	59.9	62.0	63.9	62.0	63.7	65.5	1.8	1.7
Italy	59.9	60.6	61.6	60.6	62.1	62.5	0.4	1.5
Croatia	59.2	60.5	61.4	61.0	62.0	63.8	1.8	1.0
Cyprus	67.6	68.0	68.8	68.7	69.8	71.0	1.2	1.1
Latvia	70.7	72.5	73.2	72.6	73.5	74.3	0.8	0.9
Lithuania	71.8	73.4	75.2	73.2	75.4	76.3	0.9	2.2
Luxemburg	72.1	70.9	70.7	71.9	70.3	71.4	1.1	-1.6
Malta	66.4	67.8	69.6	67.9	69.6	70.7	1.1	1.7
Netherlands	75.4	76.4	77.1	76.3	77.0	77.9	0.9	0.7
Hungary	66.7	68.9	71.5	68.7	71.4	73.2	1.8	2.7
Poland	66.5	67.8	69.3	67.4	69.1	71.1	2.0	1.7
Portugal	67.6	69.1	70.6	69.5	70.5	73.2	2.7	1.0
Romania	65.7	66.0	66.3	66.6	66.6	70.5	3.9	0.0
Slovakia	65.9	67.7	69.8	67.5	69.9	71.1	1.2	2.4
Slovenia	67.7	69.1	70.1	69.4	70.6	73.4	2.8	1.2
Sweden	80.0	80.5	81.2	80.6	81.5	82.1	0.6	0.9
Finland	73.1	72.9	73.4	73.2	73.9	74.6	0.7	0.7

(*) employed persons aged 20-64 as a share of the total population of the same age group

Table 9: Employment rate of workers aged 55-64 (*)

	Annual data (%)			Q2			Change (%)	
	2014	2015	2016	2015	2016	2017	2017/16	2016/15
Austria	45.1	46.3	49.2	46.1	49.5	50.8	1.3	3.4
Belgium	42.7	44.0	45.4	43.8	45.6	47.7	2.1	1.8
Bulgaria	50.0	53.0	54.5	51.6	54.8	58.3	3.5	3.2
France	46.9	48.7	49.8	49.1	49.8	51.7	1.9	0.7
Germany	65.6	66.2	68.6	65.7	68.4	70.2	1.8	2.7
Denmark	63.2	64.7	67.8	65.3	68.2	69.7	1.5	2.9
Czech Republic	54.0	55.5	58.5	55.6	58.2	61.6	3.4	2.6
EU	51.8	53.3	55.3	53.1	55.2	57.1	1.9	2.1
Greece	34.0	34.3	36.3	34.0	35.7	38.0	2.3	1.7
Estonia	64.0	64.5	65.3	62.5	68.1	68.3	0.2	5.6
Euro area	51.7	53.3	55.3	53.2	55.3	57.2	1.9	2.1
United Kingdom	61.0	62.2	63.4	61.8	63.6	64.0	0.4	1.8
Ireland	53.0	55.6	57.2	55.4	57.2	59.1	1.9	1.8
Spain	44.3	46.9	49.1	46.7	48.8	50.5	1.7	2.1
Italy	46.2	48.3	50.3	48.6	50.7	52.3	1.6	2.1
Croatia	36.2	39.0	38.1	40.6	39.0	40.0	1.0	-1.6
Cyprus	46.9	48.2	52.1	48.4	52.9	53.7	0.8	4.5
Latvia	56.4	59.4	61.4	59.0	62.1	62.1	0.0	3.1
Lithuania	56.2	60.4	64.6	60.3	64.8	66.2	1.4	4.5
Luxemburg	42.5	38.5	39.6	40.1	39.7	39.1	-0.6	-0.4
Malta	37.8	40.4	44.0	41.8	43.6	43.4	-0.2	1.8
Netherlands	59.9	61.7	63.5	61.7	63.2	65.5	2.3	1.5
Hungary	41.7	45.3	49.9	45.1	49.8	51.2	1.4	4.7
Poland	42.5	44.3	46.2	43.0	45.3	48.2	2.9	2.3
Portugal	47.8	49.9	52.1	50.4	52.2	56.1	3.9	1.8
Romania	43.1	41.1	42.8	42.2	43.5	46.1	2.6	1.3
Slovakia	44.8	47.0	49.1	46.7	48.8	52.7	3.9	2.1
Slovenia	35.4	36.6	38.6	38.2	39.5	43.5	4.0	1.3
Sweden	74.0	74.5	75.5	74.4	75.5	76.7	1.2	1.1
Finland	59.1	60.0	61.4	59.5	61.2	62.4	1.2	1.7

(*)% employed persons aged 55-64 as a share of the total population of the same age group

Table 10: Employment growth (persons aged at least 15)

	Annual data (%)				Q2 (%)	
	2013	2014	2015	2016	2017	2016
Austria	0.4	0.1	0.9	1.7	-1.3	-2.2
Belgium	0.1	0.3	0.2	0.8	-1.0	-1.1
Bulgaria	-0.2	1.3	1.7	-0.5	-4.1	-0.6
France	-0.1	2.3	0.1	0.6	-1.2	-0.6
Germany	0.8	0.7	0.9	2.9	-0.8	-2.3
Denmark	0.0	0.7	1.4	3.2	1.2	-3.3
Czech Republic	0.7	0.8	1.4	1.9	-1.4	-1.3
EU	-0.3	1.3	1.1	1.6	-1.5	-1.6
Greece	-4.9	0.6	2.1	1.7	-2.3	-2.1
Estonia	0.9	0.5	2.6	0.6	0.6	-1.7
Euro area	-0.6	0.9	1.0	1.8	-1.3	-1.7
United Kingdom	0.9	2.2	1.7	1.4	-1.3	-1.8
Ireland	2.1	1.5	2.6	2.9	-2.5	-2.8
Spain	-2.7	1.2	3.0	2.7	-2.7	-2.3
Italy	-1.8	0.2	0.8	1.3	-0.4	-2.0
Croatia	-2.3	3.2	1.3	0.3	-1.9	-0.9
Cyprus	-4.9	-0.4	-1.3	2.5	-3.5	-1.6
Latvia	1.7	-0.9	1.3	-0.3	0.8	0.4
Lithuania	1.6	1.9	1.2	2.0	0.8	-1.8
Luxemburg	1.0	2.8	4.8	1.2	-4.0	0.3
Malta	3.1	2.8	2.3	2.9	-2.2	-3.9
Netherlands	-0.9	-0.9	1.0	1.3	-1.8	-1.1
Hungary	1.8	5.4	2.7	3.4	-1.5	-3.3
Poland	-0.2	1.8	1.4	0.7	-1.6	-1.2
Portugal	-2.3	2.3	1.1	1.2	-3.1	-0.8
Slovakia	-2.3	2.3	-0.9	-1.0	-4.7	1.3
Slovenia	-0.5	0.9	2.6	2.8	-1.1	-3.1
Sweden	0.0	1.4	0.1	-0.3	-3.7	-0.1
Czech Republic	-2.0	0.5	1.4	1.5	-1.8	-2.1
Finland	1.0	0.9	-0.4	0.5	-0.7	-0.5

Table 11: Unemployment rate – Total population

	Annual data (%)			Q2			Change (%)	
	2014	2015	2016	2015	2016	2017	2017/16	2016/15
Austria	5.6	5.7	5.8	5.9	6.2	5.5	-0.7	0.3
Belgium	8.5	8.5	7.7	8.4	8.0	7.1	-0.9	-0.4
Bulgaria	11.4	9.2	7.5	10.0	8.2	6.4	-1.8	-1.8
France	10.3	10.4	9.7	10.2	9.7	9.2	-0.5	-0.5
Germany	5.0	4.6	4.1	4.8	4.3	3.9	-0.4	-0.5
Denmark	6.6	6.2	5.8	6.2	6.1	5.7	-0.4	-0.1
Czech Republic	6.1	5.1	3.9	5.0	4.0	3.0	-1.0	-1.0
EU	10.2	9.4	8.4	9.6	8.7	7.7	-1.0	-0.9
Greece	26.5	24.9	23.5	24.8	23.3	21.3	-2.0	-1.5
Estonia	7.4	6.2	6.8	6.6	6.7	7.2	0.5	0.1
Euro area	11.6	10.9	9.9	11.1	10.2	9.1	-1.1	-0.9
United Kingdom	6.1	5.3	4.3	5.6	4.9	4.4	-0.5	-0.7
Ireland	11.3	9.4	7.7	10.0	8.8	6.6	-2.2	-1.2
Spain	24.5	22.1	19.3	22.5	20.1	17.3	-2.8	-2.4
Italy	12.7	11.9	11.6	12.3	11.7	11.2	-0.5	-0.6
Croatia	17.3	16.3	12.5	15.7	13.0	11.1	-1.9	-2.7
Cyprus	16.1	15.1	13.0	14.8	12.3	10.8	-1.5	-2.5
Latvia	10.8	9.9	9.8	9.9	9.7	9.0	-0.7	-0.2
Lithuania	10.7	9.1	8.0	9.6	8.2	7.2	-1.0	-1.4
Luxemburg	6.0	6.4	5.9	5.4	6.2	5.3	-0.9	0.8
Malta	5.8	5.4	4.3	5.5	4.9	4.2	-0.7	-0.6
Netherlands	7.4	6.9	5.4	7.0	6.3	5.0	-1.3	-0.7
Hungary	7.7	6.8	5.0	6.9	5.1	4.3	-0.8	-1.8
Poland	9.0	7.5	6.1	7.5	6.3	5.0	-1.3	-1.2
Portugal	14.1	12.6	11.2	12.4	11.3	9.2	-2.1	-1.1
Romania	6.8	6.8	5.7	7.0	6.1	5.0	-1.1	-0.9
Slovakia	13.2	11.5	9.4	11.3	9.7	8.2	-1.5	-1.6
Slovenia	9.7	9.1	8.1	9.3	7.9	6.5	-1.4	-1.4
Sweden	7.9	7.4	6.3	8.5	7.7	7.5	-0.2	-0.8
Finland	8.7	9.4	8.2	10.9	10.2	10.2	0.0	-0.7

Table 12: Unemployment rate among men

	Annual data (%)			Q2			Change (%)	
	2014	2015	2016	2015	2016	2017	2017/16	2016/15
Austria	5.9	6.1	6.3	6.3	6.7	5.9	-0.8	0.4
Belgium	9.0	9.1	8.0	9.4	7.9	7.1	-0.8	-1.5
Bulgaria	12.3	9.8	8.1	11.0	9.0	6.9	-2.1	-2.0
France	10.5	10.8	9.9	10.8	10.1	9.3	-0.8	-0.7
Germany	5.3	5.0	4.5	5.2	4.7	4.4	-0.3	-0.5
Denmark	6.4	5.9	5.3	6.0	5.9	5.4	-0.5	-0.1
Czech Republic	5.1	4.2	3.4	4.2	3.5	2.4	-1.1	-0.7
EU	10.1	9.3	8.2	9.6	8.6	7.6	-1.0	-1.0
Greece	23.7	21.8	19.8	21.7	19.5	17.8	-1.7	-2.2
Estonia	7.9	6.2	7.3	6.7	7.8	7.9	0.1	1.1
Euro area	11.5	10.7	9.6	11.0	9.9	8.9	-1.0	-1.1
United Kingdom	6.4	5.5	4.4	5.8	5.0	4.6	-0.4	-0.8
Ireland	12.9	10.9	9.0	11.4	10.1	7.7	-2.4	-1.3
Spain	23.6	20.8	17.8	21.1	18.5	15.8	-2.7	-2.6
Italy	11.9	11.3	10.8	11.9	10.9	10.4	-0.5	-1.0
Croatia	16.5	15.7	11.8	15.6	12.6	10.3	-2.3	-3.0
Cyprus	17.1	15.2	12.7	15.2	12.2	10.3	-1.9	-3.0
Latvia	11.8	11.1	11.0	11.7	10.9	10.5	-0.4	-0.8
Lithuania	12.2	10.1	9.2	11.0	9.7	8.9	-0.8	-1.3
Luxemburg	5.8	5.8	5.7	4.9	5.6	5.5	-0.1	0.7
Malta	6.1	5.5	4.0	5.6	4.4	4.0	-0.4	-1.2
Netherlands	7.2	6.5	5.0	6.7	5.9	4.6	-1.3	-0.8
Hungary	7.6	6.6	5.0	6.7	5.3	4.0	-1.3	-1.4
Poland	8.5	7.3	6.0	7.5	6.4	5.3	-1.1	-1.1
Portugal	13.8	12.4	11.2	12.6	11.3	8.8	-2.5	-1.3
Romania	7.3	7.5	6.4	7.8	6.8	5.9	-0.9	-1.0
Slovakia	12.8	10.3	8.5	10.1	8.5	8.0	-0.5	-1.6
Slovenia	9.0	8.1	7.6	8.4	7.2	5.6	-1.6	-1.2
Sweden	8.2	7.5	6.7	8.6	8.2	7.8	-0.4	-0.4
Finland	9.3	9.9	8.6	11.5	10.4	10.4	0.0	-1.1

Table 13: Unemployment rate among women

	Annual data (%)			Q2			Change (%)	
	2014	2015	2016	2015	2016	2017	2017/16	2016/15
Austria	5.4	5.3	5.3	5.4	5.6	5.0	-0.6	-5.6
Belgium	7.9	7.8	7.4	7.2	8.0	7.1	-0.9	-8.0
Bulgaria	10.4	8.4	6.9	8.8	7.2	5.8	-1.4	-7.2
France	10.0	9.9	9.6	9.5	9.3	9.0	-0.3	-9.3
Germany	4.6	4.2	3.7	4.3	3.9	3.3	-0.6	-3.9
Denmark	6.8	6.4	6.3	6.3	6.4	5.9	-0.5	-6.4
Czech Republic	7.4	6.1	4.6	6.0	4.7	3.8	-0.9	-4.7
EU	10.3	9.5	8.6	9.6	8.9	7.9	-1.0	-8.9
Greece	30.2	28.9	28.2	28.6	27.9	25.7	-2.2	-27.9
Estonia	6.8	6.1	6.1	6.6	5.4	6.4	1.0	-5.4
Euro area	11.8	11.0	10.2	11.1	10.5	9.4	-1.1	-10.5
United Kingdom	5.8	5.1	4.2	5.3	4.8	4.2	-0.6	-4.8
Ireland	9.4	7.7	6.2	8.3	7.2	5.3	-1.9	-7.2
Spain	25.4	23.6	21.1	24.1	22.0	19.2	-2.8	-22.0
Italy	13.8	12.7	12.6	13.0	12.9	12.2	-0.7	-12.9
Croatia	18.3	17.0	13.2	15.8	13.4	12.0	-1.4	-13.4
Cyprus	15.1	14.9	13.3	14.5	12.3	11.3	-1.0	-12.3
Latvia	9.8	8.6	8.6	8.2	8.6	7.5	-1.1	-8.6
Lithuania	9.2	8.2	6.8	8.2	6.8	5.6	-1.2	-6.8
Luxemburg	6.4	7.2	6.3	6.1	6.9	5.1	-1.8	-6.9
Malta	5.3	5.2	4.7	5.3	5.5	4.4	-1.1	-5.5
Netherlands	7.8	7.3	6.0	7.3	6.7	5.5	-1.2	-6.7
Hungary	7.9	7.0	5.0	7.1	4.9	4.6	-0.3	-4.9
Poland	9.6	7.7	6.1	7.6	6.1	4.8	-1.3	-6.1
Portugal	14.5	12.9	11.2	12.2	11.3	9.6	-1.7	-11.3
Romania	6.1	5.8	4.8	5.8	5.1	3.7	-1.4	-5.1
Slovakia	13.6	12.9	10.6	12.8	11.1	8.3	-2.8	-11.1
Slovenia	10.6	10.1	8.6	10.4	8.6	7.6	-1.0	-8.6
Sweden	7.7	7.3	5.8	8.4	7.3	7.1	-0.2	-7.3
Finland	8.0	8.8	7.8	10.3	10.0	9.9	-0.1	-10.0

Table 14: Long-term unemployment rate (*)

	Annual data (%)			Q2 (%)			Change (%)	
	2014	2015	2016	2015	2016	2017	2017/16	2016/15
Austria	27.2	30.5	33.7	29.2	34.3	32.8	-1.5	5.1
Belgium	49.9	52.9	52.8	52.1	53.1	53.8	0.7	1.0
Bulgaria	60.4	61.9	59.6	63.2	60.4	55.3	-5.1	-2.8
France	42.8	45.4	47.2	45.2	47.7	47.0	-0.7	2.5
Germany	44.3	45.3	42.7	45.5	42.1	42.7	0.6	-3.4
Denmark	25.2	29.8	25.5	27.3	21.7	20.8	-0.9	-5.6
Czech Republic	43.5	48.2	42.8	46.9	43.6	37.5	-6.1	-3.3
EU	52.6	50.2	48.6	49.4	47.8	46.1	-1.7	-1.6
Greece	73.5	73.6	72.4	73.1	72.1	73.8	1.7	-1.0
Estonia	45.3	40.0	32.6	44.1	30.2	30.4	0.2	-13.9
Euro area	49.5	52.8	51.5	52.5	51.2	50.2	-1.0	-1.3
United Kingdom	35.8	33.9	30.3	32.0	28.0	25.8	-2.2	-4.0
Ireland	59.2	59.4	57.3	57.4	52.9	51.1	-1.8	-4.5
Spain	52.8	52.5	49.2	52.5	48.9	45.6	-3.3	-3.6
Italy	61.4	59.7	59.1	60.3	60.0	60.9	0.9	-0.3
Croatia	58.4	66.2	53.2	63.0	52.9	46.6	-6.3	-10.1
Cyprus	47.7	46.7	45.3	46.8	46.9	46.3	-0.6	0.1
Latvia	43.0	46.2	41.8	43.1	40.6	39.2	-1.4	-2.5
Lithuania	44.7	43.3	38.8	45.5	39.1	37.9	-1.2	-6.4
Luxemburg	27.4	30.3	37.0	31.9	35.6	44.2	8.6	3.7
Malta	46.9	48.2	45.3	45.2	36.7	42.2	5.5	-8.5
Netherlands	40.0	48.0	47.4	44.9	44.3	41.1	-3.2	-0.6
Hungary	47.5	46.8	47.7	45.9	48.2	41.9	-6.3	2.3
Poland	42.7	40.1	35.9	40.8	35.6	29.9	-5.7	-5.2
Portugal	59.6	59.1	56.9	58.0	56.4	51.1	-5.3	-1.6
Romania	41.1	45.1	51.7	43.7	51.4	41.1	-10.3	7.7
Slovakia	70.2	66.9	61.4	68.4	60.6	63.3	2.7	-7.8
Slovenia	54.5	53.0	53.9	51.5	55.2	51.3	-3.9	3.7
Sweden	18.9	24.1	22.4	19.8	18.2	17.9	-0.3	-1.6
Finland	22.4	27.5	29.4	20.5	23.1	21.3	-1.8	2.6

(*) long term unemployed (12 months or more) as a % of total unemployed

Table 15: Unemployment rate of persons aged 15-24

	Annual data (%)			Q2			Change (%)	
	2014	2015	2016	2015	2016	2017	2017/16	2016/15
Austria	10.3	10.6	11.2	10.2	10.8	8.9	-1.9	0.6
Belgium	23.2	22.1	20.1	20.4	19.2	19.9	0.7	-1.2
Bulgaria	23.8	21.6	17.3	21.9	14.4	13.2	-1.2	-7.5
France	24.2	24.7	24.6	23.1	22.9	21.9	-1.0	-0.2
Germany	7.7	7.2	7.1	7.0	7.4	7.0	-0.4	0.4
Denmark	12.6	10.8	12.0	9.7	10.6	10.1	-0.5	0.9
Czech Republic	15.9	12.6	10.5	12.0	10.0	8.3	-1.7	-2.0
EU	22.2	20.4	18.7	20.4	18.7	16.9	-1.8	-1.7
Greece	52.4	49.	47.4	49.5	49.1	43.8	-5.3	-0.4
Estonia	15.0	13.1	13.5	11.2	13.4	15.9	2.5	2.2
Euro area	23.7	22.4	20.9	22.3	21.0	19.1	-1.9	-1.3
United Kingdom	16.9	14.6	13.0	15.0	12.9	11.6	-1.3	-2.1
Ireland	23.9	20.9	17.2	22.4	19.0	16.5	-2.5	-3.4
Spain	53.2	48.3	44.5	49.2	46.5	39.5	-7.0	-2.7
Italy	42.7	40.3	37.8	41.1	35.5	34.2	-1.3	-5.6
Croatia	45.5	43.0	31.3	39.4	29.6	20.5	-9.1	-9.8
Cyprus	36.0	32.8	29.1	31.7	26.7	25.3	-1.4	-5.0
Latvia	19.6	16.3	17.3	15.2	18.9	16.5	-2.4	3.7
Lithuania	19.3	16.3	14.5	16.7	15.7	13.1	-2.6	-1.0
Luxemburg	22.3	17.3	18.7	12.3	18.0	15.7	-2.3	5.7
Malta	11.7	11.8	11.1	13.4	10.7	11.3	0.6	-2.7
Netherlands	12.7	11.3	10.8	11.0	10.9	9.0	-1.9	-0.1
Hungary	20.4	17.3	13.0	17.8	13.3	11.0	-2.3	-4.5
Poland	23.9	20.8	17.6	19.8	16.9	14.6	-2.3	-2.9
Portugal	34.7	32.0	27.9	29.8	26.9	22.7	-4.2	-2.9
Romania	24.0	21.7	20.6	20.4	19.4	15.4	-4.0	-1.0
Slovakia	29.7	26.5	22.2	25.3	20.6	17.7	-2.9	-4.7
Slovenia	20.2	16.3	15.3	15.5	13.7	10.0	-3.7	-1.8
Sweden	22.9	20.4	18.8	25.2	22.9	21.9	-1.0	-2.3
Finland	20.5	22.4	19.9	29.0	26.3	27.4	1.1	-2.7

For the exact definition of the indicator "At Risk of Poverty or Social Exclusion Rate", refer to:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=DSP_GLOSSARY_NOM_DTL_VIEW&StrNom=CODED2&StrLanguageCode=EN&IntKey=16664385&RdoSearch=BEGIN&TxtSearch=&CboTheme=36940331&IsTer=TERM&IntCurrentPage=4&ter_valid=0

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=DSP_GLOSSARY_NOM_DTL_VIEW&StrNom=CODED2&StrLanguageCode=EN&IntKey=27697382&RdoSearch=BEGIN&TxtSearch=&CboTheme=36940331&IsTer=TERM&IntCurrentPage=44&ter_valid=0