The Greek Economy in the World

5.1 INTRODUCTION

The study of alternative future scenarios for the Greek economy requires its position in the world to be outlined, something which is attempted to be clarified in this chapter. This can be done by tracking global and European economic forecasts for the period 2019–2030, reflecting the key features of the Greek economy in the international environment. In order, however, to provide a more complete picture, the analysis expands to the extent that socioeconomic conditions affect relative happiness level of Greek citizens, which consists of the ultimate goal regarding the efficiency of an economic system. This analysis takes into account the crisis of 2020 with Covid-19.

The chapter is structured as follows: Sect. 5.2 presents the key features of the major recession caused by Covid-19, at least as it was known until April 2020, Sect. 5.3 covers global and European economic developments expected by 2030, while the following section (Sect. 5.4) poses Greece in the international environment.

5.2 THE WORLD DEPRESSION OF COVID-19

Covid-19 pandemic that erupted in early 2020 is the major recessionary fact of the early 2020s. The crisis highlighted humanity’s weaknesses in handling events outside of the economy that have global and catastrophic
consequences on basic economic behaviors such as consumption, productivity, linear production spreading to different parts of the world and confidence in financial systems’ function.

Covid-19 crisis has the basic characteristic of, given its high uncertainty, causing a very large crisis in confidence—resulting in doubts about future incomes—and recessionary conditions, due to a reduction in overall consumption.

This first round of reactions took place in a very short period of time, having a global dimension (as was the speed at which the pandemic spread), resulting in the depth of the crisis being very large.

The difference between handling pandemics and handling climate change is important. The pandemic progresses very rapidly and a large share of the population is immediately sensitized. It has measurable results (number of cases and deaths), and mainly burdens public health systems, while climate change causes phenomena that have an independent existence, with consequences in various areas—such as tourism and construction—which are not directly related to climate change, resulting in a lack of mobilization by societies.

The world has dramatically changed with the evolution of Covid-19 (Fig. 5.1). Production losses associated with the measures taken to deal with the crisis outweigh losses arising from the 2008 crisis. Additionally, high levels of uncertainty have accumulated regarding the duration and intensity of the shock. Under these conditions, economic policy’s priorities have changed and have differentiated from policies to strengthen overall demand that would apply, had we faced a downward phase in business cycle. Now the economy is facing structural supply problems that require special policies, given that horizontal demand-enhancing policies are incorrect, when the respective productive sectors are healthy.

In conclusion, the Great Lockdown (International Monetary Fund [IMF], 2020) will have a detrimental effect, causing an unprecedented recession in 2020, and this could be considered the first phase of the crisis, while the second phase raises issues of stabilization and recovery. This will lead to an increased recovery in 2021, but maintaining crisis damage in coming years. In this phase, high costs will be incurred to strengthen health systems and save social and productive networks, resulting in people living with much higher levels of budget deficits, debts, and inflated central bank balance sheets.

This way we will avoid causing a systemic crisis, mainly in financial system, taking advantage of opportunities arising from 2008 financial
Fig. 5.1 Index of new events (diseased persons): Greece vs Italy vs Hubei (Note Day 1 of the crisis is the day with the occurrence of 100 cases per 60 million population [for Greece day 1 is when 18 cases occurred, i.e. March 5, 2020, for Hubei is January 18 and for Italy is the 22nd February]. Source Our World in Data [2020] and author’s own calculations and creation)

crisis. At the same time, expectations will remain that are necessary to avoid starting the next day from a more difficult starting point.

5.3 GLOBAL AND EUROPEAN ECONOMIC DEVELOPMENTS: 2018–2030

Global development, after the deep recession due to Covid-19 of 2020, is expected to move positively in coming years through mild, cyclical-type, changes. Generally, however, the development outlook looks to be sluggish, while Eurozone indicates a weaker performance (Table 5.1). It should be noted that these trends preceded the Covid-19 crisis.

The Greek economy, after the rapid contraction of 2020, is expected to grow at a faster pace than the average of Eurozone economies (average) over the next decade. At the same time, however, the level of inflation rate in Greece (Table 5.2), located well below the (2%) European target, seems to be problematic, as it approaches it only during the second five-year period. Similar levels of inflation rate, at least over the next two years, can also be seen among other Eurozone countries.

After the recovery of 2020, relatively positive global developments mainly support consumer demand, in addition to the fact that a large
Table 5.1  Real Gross Domestic Product (GDP) growth: annual percentage change

|         | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025–2030 |
|---------|------|------|------|------|------|------|-----------|
| Greece  | 1.90 | −5.94| 6.52 | 4.46 | 2.65 | 2.27 | 1.73      |
| Eurozone| 1.23 | −5.12| 4.69 | 2.36 | 1.61 | 1.32 | 0.97      |
| World   | 2.58 | −3.50| 6.44 | 3.76 | 3.00 | 2.92 | 2.66      |

*Note* Estimates have taken into account (April 2020) the effects of Covid-19

*Source* Oxford Economics (2020) and author’s own calculations and creation

Table 5.2  Inflation rate, average consumer prices: annual percentage change

|         | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025–2030 |
|---------|------|------|------|------|------|------|-----------|
| Greece  | 0.25 | −1.03| 1.54 | 1.17 | 1.27 | 1.56 | 1.89      |
| Eurozone| 1.20 | 0.21 | 1.49 | 1.57 | 1.68 | 1.79 | 1.95      |

*Note* Countries with hyperinflation are not included. Estimates have taken into account (April 2020) the effects of Covid-19

*Source* Oxford Economics (2020) and author’s own calculations and creation

part of the world is starting from lower development levels. The main central banks stance contributes to the maintenance of mild development trends. But the increase in uncertainty, associated with epidemiological phenomena and also with the field of politics, is creating recessionary forces.

The main sources of future crises in the medium-term appear to be partial or exogenous treatment of epidemiological phenomena, climate change, political uncertainty due to the trade war, central banks operations and their effects on global liquidity, low inflation and the appearance of asset bubbles, the maintenance of global economic imbalances, and a lacking arsenal of economic policy instruments—the depletion of monetary policy opportunities and lack of space to activate fiscal policy can be seen as the typical characteristics of the new era being emerged.

Generally, however, the likelihood of policy errors is increasing given that international conditions have entered an era in which is needed more careful treatment. At the same time, an environment is being created in which many economies are exposed to risks of political upheaval under the influence of exogenous effects, in regards to their economy, such as the
large movements of refugees, political populism, and geostrategic energy developments.

European Union, and especially Eurozone, has entered a period of reorganizing its operational architecture. The transformation of the European Stability Mechanism (ESM) and reorganization of the fiscal policy framework, the progress on the European Banking Union’s integration toward functioning on the pillars of the Single Resolution Mechanism (SRM)—with the Single Supervisory Mechanism already in place—and the European Deposit Insurance Scheme (EDIS), are of exceptional importance. The most critical part that would has been targeted by these reforms is related to the weakening of the so-called “doom loop,” that is, the infectious link connecting state finances with troubled banks. So far, however, reforms implementation seems to enjoy positive, but extremely slow rates. Covid-19 took on the role of accelerator in the European Union, where in a very short period of time discussions started on even a partial direct debt expansion, multiple steps taken by ECB and the readiness of ESM and European Investment Bank, activation of European Planning and bonds issuance by European Commission for the benefit of those affected by Covid-19 crisis.

A significant finding from the work done by Reinhart and Rogoff (2008) was that periods of financial crisis are usually accompanied by about 6–8 years of low growth or economic stagnation. Their assessment seems to be confirmed, despite the fact that a new reality is appearing under the pressure of new facts. Thus, after the crisis with Covid-19, new facts on investment opportunities, the fourth industrial revolution, political shifts, and population changes are constantly repositioning the short and medium-term outlook on normality.

It is commonly accepted, moreover, that periods of widespread economic crisis are also accompanied by a rise in political populism that put forth a steady stance of doubting the importance and role of independent systems (legislative, administrative, justice, media) of mutual control and governance. Additionally, it is confirmed that political instability is more intense in periods succeeding financial crises, and the question that arises is whether Covid-19 will also lead to a financial crisis. More specifically, Funke, Schularick, and Trebesch (2015), comparing the political impact of “recessions after financial crisis” with the overall impact of “normal recessions” which are not linked to financial crisis, they conclude that financial crises stand out and are followed by political instability to a more intense extent, while compared with other types of economic crises.
This seems to be due to the fact that in financial crises: (a) endogenous problems arise due to the failure of applied policies, the increase in moral hazard, and the revealing of favoritism phenomena; and (b) financial sector bailouts usually result in even greater social dissatisfaction. However, a decade after the crisis started, most of social and economic variables are globally approaching historical averages.

As this book is being written, it is not yet clear to which extent the Covid-19 crisis will turn into a financial crisis, although there are indications that some areas of financial operations, such as the reduction of leveraging, will have negative effects.

At the end, therefore, of the second decade of the twenty-first century, existing conditions show that sources of economic turmoil have appeared, several of which have had an impact on the medium-term horizon. These conditions are: (a) movements of refugees and migrants and changes in age structure (i.e., predominance of elder people) that leads to shifts in economic and social behaviors (Chapter 6, Sect. 6.5), (b) technological changes (the 4th industrial revolution) combined with major changes in demand for work skills (Chapter 6, Sect. 6.6), (c) environmental risks and economies adjustments in terms of climate change (Chapter 6, Sect. 6.7), and (d) globalization and the transfer of weight among economic decision-making centers to the East (Chapter 6, Sect. 6.8).

In addition to these conditions, three separate phenomena are located within Western economies as a result of the cumulative effect of the above processes. These are: (e) increasing income and wealth inequalities and decreasing social mobility (Chapter 8, Sect. 8.2), (f) implications in the prosperity of the middle class and the empowerment of the individual with necessary skills (Chapter 8, Sect. 8.3), and (g) the most important changes in social behaviors (Chapter 8, Sect. 8.4).

Can these forces influence the economies’ performance and the societies’ structure in a way that in current situation the typical characteristics of the medium-term future will differ from those of the past?

This unusual mix of forces makes it very difficult to predict the future, which is making its mark as being more of a negative development than a positive one. Despite this, knowledge of possible negative developments often leads policy to take precautionary measures capable of mitigating the effects of these developments or even prevents them from occurring, while on other occasions, wrong policies can create fresh turmoil. Therefore, it is difficult to diagnose the ongoing developments accurately. A
typical example is the Covid-19 crisis, which, as a “Black Swan,” overturned the normality in 2020 and created a seriously negative starting point for the new decade.

5.4 The Greek Economy in the International Environment

A decade after the crisis (2008–2018), the challenge of the Greek economy is located in its essential recovery and strengthening, so that it can be fully integrated into the global economic stage. Tapping markets, borrowing at almost historically low interest rates, and the early partial repayment of its debts have contributed to this.

At the same time, it must address the challenges posed by Covid-19 crisis. The crisis affected the Greek economy via four channels:

- The supply of products and services through the disruption of production and supply lines (production-transport) as well as demand, due to increased consumer uncertainty.
- The negative animal spirit of investors causes reductions in the price of capital assets, resulting in business portfolios with excessive debt facing the possibility of not being able to meet their obligations. This leads to financial instability, limited credits, and turmoil in credit markets.
- The widespread diseases of employees and the obligatory restrictions on economic activity cause reductions in productivity which, in turn, cause a decrease in total demand due to negative expectations for future income. This triggers a negative spiral that leads to recession or at least economic stagnation.
- Losses on the side are arising, such as turmoil in oil markets with two major powers (Russia, Saudi Arabia) deciding that it was the right time to start a war on prices and oil supplies (at least this way, with such low oil prices, the tension in the SE Mediterranean went away!).

However, there are still several additional obstacles that must be overcome in order to reach normality, both internally and externally. The goal of sustainable development needs to be based, among others, on a healthy fiscal position, on the stability of the banking and political
system, on building a favorable business climate, on efficient management of additional refugee flows, and on the equitable distribution of imminent benefits to Greek society.

These five factors, however, are also presented as being the most precarious in terms of the smooth operating of the Greek economy. Non-compliance with fiscal targets (which are under review due to Covid-19), the heavily burdened banking sector (whose condition is deteriorating in the short-term by Covid-19), non-sustainable governance, and increased refugee flows constitute—in order of importance—the highest risks to the undertaking of business activities. The regaining, therefore, of the Greek economy’s credibility must be based on mitigating such concerns. This is the only way it can improve its performance and position in the international economic environment.

To form an image of Greece’s relevant position some comparative data is required. In this chapter’s analysis, Greece is compared with Portugal and Ireland, countries with similar recent problematic past in economic terms, but also with the experience of different crises management. Comparisons with these relatively “small” Eurozone countries is enlightening, given that Portugal in the years running up to the crisis lagged Greece in many indicators, but now is probably ahead. Ireland, on the other hand, is a country-reference point at an advanced level for many reasons, in relation to Greece.

The Greek economy is a relatively rich country that is comparable in terms of wealth to Portugal, but is considerably behind Ireland (Table 5.3). The elements that create its wealth are “Produced Capital”

| Economy | Total wealth | Capital produced | Natural capital | Human capital | Net foreign assets | Population |
|---------|--------------|------------------|----------------|--------------|-------------------|------------|
| Greece  | 227,925      | 134,895          | 12,546         | 105,663      | –25,179           | 10,892,413 |
| Portugal| 274,453      | 117,409          | 9189           | 172,163      | –24,308           | 10,401,062 |
| Ireland | 627,256      | 189,309          | 15,912         | 473,656      | –51,620           | 4,617,225  |

Note: Estimates in the table (except population) are per capita figures—thousands of dollars ($) in exchange rates in 2014. Total wealth per capita is calculated as the sum of the estimate of each component of wealth: capital produced, natural capital, human capital, and net foreign assets. Net foreign assets are the sum of a country’s foreign assets and liabilities, for example, foreign direct investment and foreign exchange reserves.

Source: Lange, Wodon, and Carey (2018) and author’s own creation.
and “Human Capital.” The latter, however, creates the gap with the other two countries, despite common belief that Greece excels (in a general and indefinite manner) in human capital.

Extensive unemployment, low levels of education, and the structure (aging) of the working population (see Table 5.5) contribute to the gap in human capital. At the same time, there is a significant difference between Greece and Ireland, in terms of real disposable income and real GDP per capita (Table 5.4). The distance separating Greece from Ireland is large in both of these indicators, but approaches Portugal. In the meanwhile, the Greek economy’s degree of globalization has increased significantly, especially after 1970, though it clearly lags behind these two countries.

In conclusion, the Greek economy is currently positioned between upper middle-income countries and high-income countries (Lange et al., 2018). The wealth it offers is significant, but the state of its citizens’ welfare has deteriorated considerably since the 2010 crisis.

The structure of the Greek population, in relation to the labor market, includes certain important surprises. In order to be able to follow these structural features, it would be useful to focus on the entire population (2018), which does not include the old age bracket from birth to 14 years.

Table 5.4  Basic Greek figures in comparison with Portugal and Ireland

| Economy | Real disposable income (thousands, €) | Real income per capital (thousands, $/PPP, 2017) | Ranking on globalization index (KOF) 2019\(^a\) | Shadow economy (% of GDP) 1991–2015 average\(^b\) | General government debt (% of GDP) 2018\(^c\) |
|---------|--------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Greece  | 17.7                                 | 25                                            | 24                                            | 27.1                                          | 188.73                                        |
| Portugal| 23.5                                 | 26                                            | 15                                            | 21.9                                          | 145.3                                        |
| Ireland | 32.0                                 | 65                                            | 17                                            | 13.9                                          | 77.24                                        |

Note The KOF Globalization Index measures the economic, social and political dimensions of globalization on a scale of 1–100. The index examines 197 countries, with the score of 1 given to the most globalized and the remainder of the countries follows in the ranking in descending order. KOF GI Ranking 2019 is based on data for the year 2017. The size of the shadow economy for 2016, based on the publication of (Kelmanson, 2019), amounts to 30.2% for Greece as it reaches 24.5% for Portugal and 15.8% for Ireland. It must be mentioned that this is a different methodology from that used by Medina and Schneider (2018) in the above table. Source \(^a\)Gygli, Haelg, Potrafke, and Sturm (2019), \(^b\)Medina and Schneider (2018), \(^c\)Organisation for Economic Co-operation and Development (OECD) (2018), Oxford Economics (2019) and author’s calculations and creation.
old. Thus, we find that only (!) 28.16% of the population is employed as dependent workers, compared with 41.5% in Portugal and 46.25% in Ireland, having a relative effect on productivity (Table 5.5). In contrast, 11.49% are self-employed, compared with 6.34% in Portugal and 6.71% in Ireland.

The unemployment rate is much higher in Greece and could rise even more—as is also the case in other comparative countries—if we include a form of joblessness made up of those who are involuntarily part-time, the “discouraged workers” and other potentially additional workforce. In 2018, the total of these three groups in the Greek economy numbered some 326,000 people.

Coronavirus crisis had a particular impact on the situation and the number of unemployed. It is estimated that in 2020 the number of unemployed will rise by 150,000 people, from levels seen at the end of 2019, mainly as a result of problems in the tourism sector, but also in the field of small and medium enterprises (SMEs). This effectively brings economy back one to two years, when it started to cover crisis gap from the first lost decade of 2010.

Among the self-employed are between 100,000 and 200,000 people who work for a company but are registered and able to issue invoices. They are salary workers who, in relation to the private sector, are declared as self-employed. Therefore, the total number of self-employed should be reduced by this figure, and then, in turn, be added to the total number of employees. In all categories of human resources, there are also a number of people working in the shadow economy. They are estimated to numerate at around 900,000–1,100,000 people. A person who works in the shadow economy may also belong to more than one group of workers at a time (employee, unemployed, retired, non-financially active, etc.).

Additionally, Tables 5.6 and 5.7 present income distribution among individuals and legal entities, respectively.

Most individuals’ taxable income is being lying between 0 and 10,000€, while most legal entities declare losses.

Additionally, the largest group of taxpayers, reaching 35.41% is pensioners (!) immediately followed by employees (34.82%) (Independent Authority for Public Revenue [AADE], 2019). These two categories together account for 64.61% of tax revenues, while business activity employs 9.58% of taxpayers (including self-employed) and produces 22.41% of tax income.
Table 5.5  The labor structure of the Greek population (2018)

|                        | **Greece** |         | **Portugal** |         | **Ireland** |         |
|------------------------|------------|---------|--------------|---------|-------------|---------|
|                        | People     | % of total population | People     | % of total population | People     | % of total population |
| (1) Dependent workers  | 2,663,600  | 28.16   | 4,004,000    | 41.57   | 1,903,800   | 46.25   |
| (2) Self-employed      | 1,087,400  | 11.49   | 611,000      | 6.34    | 276,200     | 6.71    |
| (3) Total of workers   | 3,751,000  | 39.66   | 4,615,000    | 47.91   | 2,180,000   | 52.97   |
| (3.1) Private Sector   | 3,028,080  | 32.01   | 3,931,050    | 40.81   | 1,881,800   | 45.72   |
| (3.2) Public Sector    | 722,920    | 7.64    | 683,950      | 7.10    | 298,200     | 7.24    |
| (3.3) Part-time employment and temporary contracts | 628,000 | 6.64 | 1,251,000 | 12.98 | 613,000 | 14.89 |
| (4) Unemployed         | 915,000    | (19.3)  | 363,000      | 7       | 137,000     | 5.8     |
| (4.1) Long term unemployed | 644,000 | (13.6)  | 160,000      | 3.1     | 50,000      | 2.1     |
| (5) Labor Force (3 + 4) | 4,666,000  | 49.33   | 4,978,000    | 51.68   | 2,317,000   | 56.29   |
| (6) Pensioners         | 2,617,056  | 27.67   | 3,007,164    | 31.22   | 939,124     | 22.81   |
| (7) Non financially active (not working and not looking for work—partly being educated) | 2,173,800 | 22.98 | 1,646,700 | 17.09 | 859,400 | 20.88 |
| (8) Total of people (5 + 6 + 7) | 9,456,856 |        | 9,631,864    |        | 4,115,524   |        |
| (9) Total population   | 10,741,165 |        | 10,291,027   |        | 4,830,392   |        |
| (10) Population aged 0–14 | 1,546,667 |        | 1,423,896    |        | 1,006,448   |        |

(continued)
Table 5.5 (continued)

|                  | Greece          | Portugal        | Ireland        |
|------------------|-----------------|-----------------|----------------|
|                  | People % of total population | People % of total population | People % of total population |
| (11) Completed tertiary education by age group |                  |                  |                  |
| aged 25–34       | 42.8%           | 31.5%           | 56.2%           |
| aged 35–44       | 34.2%           | 32%             | 53.8%           |
| aged 45–54       | 29.2%           | 20.5%           | 42.9%           |
| aged 55–64       | 21.9%           | 14.2%           | 31.2%           |

Note Percentages in the second column are based on the total of the workforce, retirees (2016 data) and financially inactive people over the age of 15. Unemployment and long-term unemployment rates are exempt and calculated as a percentage of the workforce. Dependent employees are calculated after deducting the self-employed from the total number of employees. Self-employed and total of workers relate to people aged 14–64. Private sector employees result from removing public sector employees from total employed (assuming that the number of civil servants remains stable from 2015 to 2018). The data for public sector refer to the year 2015. The number of part-time employment and temporary contracts comes from adding up the corresponding categories for the 15–64 age group. Unemployment and long-term unemployment data are expressed as annual averages and relate to people aged 15–74. Workforce comes from adding those in employment (15–64 years old) with the unemployed (15–74 years old). The data for pensioners relate to 2016. Non-financially active individuals relate to people aged 14–64 (the data refer to 2018). The rest data (for categories 9, 10, and 11) refer to the year 2018.

Source OECD (2017)3, Statistical Office of the European Communities (2019a2, 2019b3, 2019c4, 2019d4.1, 2019e6, 2019f7, 2019g9,10, 2019h11), and author’s own calculations and creation.
However, the largest tax burden is lifted by employees (41.95%) and then pensioners (22.66%), followed then by business activity (22.41%) (AADE, 2019).

Let’s not forget that the shadow economy accounts for 27.1% of the economy (see Table 5.4), meaning that these percentages are subject to change if we include real data in total.

In regard to the structure of tax revenues, Greece appears much higher in the ranking (9th position), compared to Portugal (16th position) and mainly with Ireland (last place, EU-28), in terms of taxes as a percentage of GDP (Table 5.8). This gap is mainly due to the relative amount of indirect taxes paid, where Greece ranks in 4th position and Ireland is, again, in the best (last) position. There is also a significant difference in
Table 5.8  Income distribution for 2017 tax year (tax revenue as per type of tax and economic activity)

| Type of tax | Greece | Portugal | Ireland |
|-------------|--------|----------|---------|
|             | %GDP   | Ranking  | Revenues | %GDP   | Ranking  | Revenues | %GDP   | Ranking  | Revenues |
| Indirect taxes | 17.3     | 4        | 31.1         | 15.1     | 9        | 29.4         | 8.5     | 28        | 25.1         |
| Direct taxes | 10.1     | 15       | 18.3         | 10.1     | 16       | 19.7         | 10.6     | 14       | 31.2         |
| Social contributions | 11.5     | 16       | 20.7         | 9.2      | 19       | 17.9         | 3.9      | 26       | 11.4         |
| Total       | 38.9     | 9        | 70.1         | 34.4     | 16       | 67          | 23       | 28       | 67.8         |
| Economic activity |         |      |            | |          |        |            | |          |            |
| Consumption | 14.6     | 3        | 26.3         | 12.7     | 11       | 24.8         | 7.6      | 28        | 22.4         |
| Labor       | 16       | 17       | 28.8         | 14.5     | 18       | 28.1         | 9.9      | 28       | 29.1         |
| Capital     | 8.4      | 9        | 15.1         | 7.2      | 14       | 14.1         | 1.3      | 18       | 3.7          |

Source: European Commission (2019) and author’s own creation

Note: Ranking between European Union (28) countries. Revenues in billion of euros. Labor consists of payments from employees, employers, and those not employed. Capital broadly defined as including natural capital, intangible assets, and capital investments and savings. It is divided into subcategories: income from businesses, households, self-employed, and stock of capital.
terms of taxes paid in different parts of economic activity. Greek economy’s tax revenues are mainly being derived from consumption and capital, rather than labor. In fact, in the Greek economy, the tax contribution of consumption to state revenues is one of the largest among European Union (EU-28) countries—Greece ranks in 3rd position in the relevant ranking.

Greece, like Portugal but to a larger degree, has long been characterized as a consumer economy, with the total of private and public consumption in the Greek economy reaching 90.4% of GDP (stable prices 2010) for the period 2014–2018 (Fig. 5.2). Meanwhile, the corresponding rate in Ireland amounted to 47.6%!

During the Greek economy’s adjustment to the bailout programs, the contribution of the external sector—due to the internal devaluation and increased competitiveness—was positive, but the investment sector was hit hard. In contrast, Ireland has been improved in both of these sectors.

Happiness among citizens can be used as the final and absolute indicator of efficiency in economic and social systems. One such indicator is the World Happiness Report, which is calculated for 153 countries and is based on six criteria that determine happiness levels (Helliwell, Layard, Sachs, & de Neve, 2020). The criteria look at GDP per capita,

**Fig. 5.2** Percentage contributed by the main components of GDP (averages for 2000–2013 and 2014–2018) (Source Oxford Economics [2019] and author’s own calculations and creation)
life expectancy, social support, freedom of choice in personal life, levels of generosity but also corruption in society, and subjective feelings of euphoria/dissatisfaction experienced by the country’s citizens.

Greece’s economic and social system, due to the very large recession experienced, caused one of the greatest plunges in the happiness of Greek citizens (Fig. 5.3). Today, Greece is ranked in 77th position, Portugal in 59th place, and Ireland is ranked in the 16th one. In comparison with Portugal, Greece appears to lag behind in social indicators (social support, freedom of choice), while compared with Ireland, it lags significantly in all indicators. It is noteworthy that Greece is ranked (Helliwell et al., 2020) in second-to-last position (only over Turkey) among OECD countries on the happiness index.

**Fig. 5.3** Changing world happiness for European countries from the 2006–2008 to the 2017–2019 period (*Source* Helliwell et al. [2020] and author’s own calculations and creation)

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