CHAPTER 12

The Long-Term View of the Greek Economy
Under the Normal and the Optimal
Pro-growth Scenario: 2020–2030

12.1 Introduction

This chapter provides an overview of the expected development for a number of macroeconomic figures by 2030. For this purpose, the relevant developments for the two scenarios described in the previous chapter are analyzed: the Normal Scenario (business as usual) and the Optimal Scenario (pro-growth scenario). The aim is, in addition to presenting the expected development of the Greek economy by 2030 based on the current picture, also to highlight the role of structural reforms in the implementation of a pro-growth scenario.

The structure of the chapter is as follows: In Sect. 12.2 the developments related to the deleveraging of Greek banks are commented, the end of Credit-Less Recovery is presented. Next (Sect. 12.3), the expected developments in the Greek economy until 2030 for the two scenarios are presented in comparison with the average of the Eurozone for variables such as GDP growth, unemployment rate, investment, and inflation. In the next Sect. (12.4), a description is being made about the way the potential output and the output gap in the Greek economy will evolve, and, in the line, there is a presentation of issues related to productivity, the Okun curve (i.e., the correlation between growth rate and the change in unemployment rate, the development of interest rates, capital stock, and depreciation). Section 12.5 presents the expected development for the public debt of the Greek economy, and its connection with the expected
development in the government balance and primary fiscal balance. Next (Sect. 12.6), presents the way in which the key factors of GDP are expected to evolve as well as the average annual contribution of the main determinants in GDP. Section 12.7 describes the issue of the competitiveness of the Greek economy until 2030 for the two scenarios, and the next Sect. (12.8) presents the expected development of investments in the Greek economy. Finally, Sect. 12.9 presents some elements that follow certain areas of inclusive growth such as how real disposable income will evolve, savings, the Gini coefficient, employment and the percentage of people at risk of poverty or social exclusion and finally an estimate about the happiness index which is a sample of the effective efficiency of the economic system.

12.2 THE END OF CREDIT-LESS RECOVERY

The Greek economy seems to have entered the last phase of deleveraging of Greek banks from the load of non-performing loans that the almost ten-year financial crisis has brought. Of course, this is a situation that could be described as particularly difficult and demanding.

One of the most important successes of the Greek banking sector to date is that banks have successfully completed the transfer of defective consumer credit and card loans. This stock has in its vast majority moved into the hands of new investors who, as a rule, acquired it at a very low price. Of course, the problem for banks may have been closed, but obviously the management of these loans by their new owners and managers, remains and is expected to remain an open issue to be resolved since private debt remains as a burden in the real economy.

Also, so far, the activity so in the senior sales of secured loans of small and medium-sized enterprises is being considered as significant, since transactions have been completed that raise the total nominal amount transferred to investors up to 8.5 billion to 9 billion euros.

At the same time, Greek banks continue their efforts to isolate their troubled portfolios from the “good” bank in order to avoid the continued contamination of banks, which worked decisively for the formation of the market of problem loan management (NPL servicers).

The above developments are linked to a significant reduction in the exposure of Greek systemic banks to non-performing exposures, which is expected to continue in the medium term (Fig. 12.1).
For the Greek case, an Asset Protection Scheme has been adopted, called “Hercules”, which is based on the Italian model of securitization of non-performing loans. It is no coincidence that in the last financial crisis, all the countries affected by the crisis, in one way or another applied some similar schemes (USA, Great Britain, Ireland, Italy), and generally very positive results. Similar results are expected from its application in the Greek economy. With this model, Greek banks will be able to transfer part of their exposure to special purpose vehicles that will securitize the loans and make them available to investors, with the Greek state guaranteeing the transactions. It is also characteristic that already, without finalizing the draft law, the four systemic banks (Alpha Bank, Eurobank, National Bank, Piraeus Bank) have planned NPEs deleveraging transactions with a total value of 30–34 billion euros, an amount that exceeds the total reduction of NPEs that had been realized cumulatively until the end of 2019.

Therefore, in view of these actions, the four systemic banks should be expected to continue to reduce non-performing exposures both organically, supported by improving macroeconomic conditions, and non-organically, through sales and securitizations. In this sense, the period, during which the recovery of the economy could not be supported by
the activation of the financial system which will gradually return to positive financing rates of the Greek economy is removed, marking the end of creditless recovery.

12.3 Eurozone and the Greek Economy 2020–2030

The Greek economy is expected to show in the next decade a fairly significant positive deviation (de-coupling) from the Eurozone, recording growth rates higher than those of the Eurozone. Of course, the structural problems of the Greek economy are such that they do not allow the Greek economy to perform better than the average of the Eurozone in critical areas, such as the labor market and investment, but progress in GDP is evident. Thus, the significant performance expected with either Normal or Optimal Scenario in the Greek economy by 2030 is expected to lead to a significant convergence of the Greek economy with the Eurozone average.

The crisis of the Covid-19 pandemic is expected to be particularly intense both in Greece and in the Eurozone. After the great recession for 2020, a significant recovery is expected for 2021 and, after that, a gradual decline in GDP growth rates. More specifically regarding the growth rate of the Greek economy, although positive in both scenarios after 2021, it is expected to decrease every year in Normal Scenario until 2030, while in Optimal Scenario it is expected to strongly increase (Fig. 12.2). On the other hand, in the case of the Eurozone, relative stability of GDP growth to rates close to 1% should be expected for the entire decade from 2021 to 2030.

More specifically, the growth rate of GDP in the Normal Scenario from −5.9% in 2020 is expected to reach 6.5% in 2021 and has since gradually decreased to 1.35% in 2030. In terms of real GDP from 194 billion euros in 2019 it is expected to reach 182.6 billion euros in 2020, to grow to 194.1 billion euros in 2021, and to approach 235.9 billion euros in 2030. With regard to the Optimal Scenario, a decrease in the rate of change in GDP of 4.93% in 2020, an increase of 5.4% in 2021 and since then a gradual decrease approaching 2030 to 1.5%. Real GDP in this scenario is expected from 184.5 billion euros in 2020 to 254.6 billion euros in 2030. For the case of the euro area, growth of −5.6% in 2020, 4.6% in 2021 and a decrease of 0.7% by 2030 should be expected.
Regarding labor market, the effort to recover the Greek economy by 2030 is expected to lead to a fairly significant reduction in the unemployment rate gap between Greece and the Eurozone (Fig. 12.3). Of course, the effect of the Covid-19 pandemic on the size of unemployment is estimated to be greater in Greece than in the Eurozone.
The unemployment rate of the Greek economy was also higher than that of the Eurozone in the 2000s, but the high growth rates until 2007 led to the full convergence of the two rates in 2008. Of course, the crisis of 2008 opened the gap between Greece and the Eurozone and the Greek economy is expected to make a great effort to converge with the Eurozone again. This, of course, is not expected to fully occur with either scenario, although even better convergence is expected with the Optimal Scenario.

In particular, labor market conditions are expected to be much more favorable in the case of Optimal Scenario, as well as employment and the unemployment rate are expected to have a better development. As for the unemployment rate, from about 20.6% in 2020 it is expected to fall to 11.1% in Normal Scenario and in Optimal Scenario from about 20.3% in 2020 it is expected to fall to 9.6%. Respectively, in the Eurozone from 9.34% in 2020 is expected to fall to 6.67% by 2030.

One of the biggest problems brought about by the crisis in the Greek economy was the huge reduction in the size of investments. Thus, while in 2007 investments as a percentage of GDP were higher for Greece than the corresponding size in the Eurozone, the crisis reduced investment in the Greek economy by more than 50%, while the same did not happen for the entire Eurozone. Thus, while the Eurozone is expected to approach quite satisfactorily the level of investment as a percentage of GDP achieved before the crisis by 2030, this does not apply to the Greek economy, which seems to have a rather difficult road ahead, in order to achieve this (Fig. 12.4). Indeed, the impact of the Covid-19 pandemic on investments for the year 2020 has had a significant negative impact on this effort.

Finally, Fig. 12.5 presents the inflation rate in the two scenarios compared to the level of inflation rate in the Eurozone.

After the shock of the Covid-19 pandemic that is expected to lead to negative inflation in the Greek economy and to near zero in the Eurozone economy, the level of inflation is expected to be positive in the case of Normal Scenario for the entire period from 2021 to 2030, with a continued trend of growth from 2022 onwards (reaching 2.04% in 2030). However, in the Optimal Scenario the significant increase in the level of production until 2023 is expected to lead to zero levels of inflation, which from 2025 is expected to increase over time reaching 2030 to 1.81%.
Fig. 12.4 Investments in the two scenarios compared to investments in the Eurozone (Source Oxford Economics [2020] and authors’ calculations and creation)

Fig. 12.5 The inflation rate in the two scenarios compared to the inflation rate in the Eurozone (%) (Source Oxford Economics [2020] and authors’ calculations and creation)

However, it should be stressed that in Normal Scenario the rate of inflation stabilizes close to 2% after 2028, while in Optimal Scenario the rate of inflation is approaching this level.
Fig. 12.6 Working age population (Source: Oxford Economics [2020] and authors’ calculations and creation)

12.4 Output Gap and Potential Output

One element that characterizes the Greek economy is the fact that since the beginning of the crisis there has been a significant decrease in the working age population, something that is significantly associated with the decline of the population in productive age due to the aging of populations in Greece and the fact that during the years of the crisis there has been a significant increase in the phenomenon of brain drain. A similar trend should also be expected in the years from 2020 to 2030, whichever scenario prevails as the size of the working age population is not affected by the improvement of the TFP in the Optimal Scenario (Fig. 12.6).

Of course, the decline in working age population is likely to be associated with the decline in potential output and therefore with the fact that labor as a productive factor is not able to deliver to its full potential. This is also one of the reasons why the potential output of the Greek economy—the product produced if all resources were employed to their maximum extent—is from the beginning of the crisis and then (until 2030) higher than the actual output of the economy (Fig. 12.7) in both scenarios.

The difference between the potential and the actual product produced is why the output gap for the Greek economy has been negative since the beginning of the crisis and is expected to remain negative whichever
scenario prevails until 2030 (Fig. 12.8). Furthermore, the level of the output gap is crucial for understanding which are the inflationary pressures that exist. When the output gap is positive, inflationary pressures exist, while when it is negative inflation should be low since monetary policy will be lax. This is the case for the Greek economy during the period from 2000 up to 2030 (Fig. 12.8).

Of course, as presented in Fig. 12.7, an improvement in the product produced in the Greek economy should be expected despite the fact that the working age population is declining. So it seems that we should expect an increase in labor productivity from employees who remain in employment, which is evident from Fig. 12.9. In fact, as shown in the chart below, the improvement of TFP in Optimal Scenario significantly increases labor productivity.

Consistent with the negative potential output is the shift of Okun’s curve for the Greek economy. Generally, Okun’s Law curve shifts left when there is deterioration of potential output and right when there is improvement. More specifically, there is a shift of Okun’s curve to the left, from 1991–2000 to 2008–2018, while it is expected to return again slightly to the right for the period 2020 to 2030 whichever of the two scenarios prevail (arrows show the direction) (Fig. 12.10).
In addition, Fig. 12.11 presents the Phillips curve for the Greek economy, from 2000 to 2030 (both scenarios). We observe a shift of
Fig. 12.10  Okun’s curve for the Greek economy at various periods in both scenarios (Source Oxford Economics [2020] and authors’ calculations and creation)

Fig. 12.11  Phillips curve for the Greek economy (Source Oxford Economics [2020] and authors’ calculations and creation)
the Phillips curve down and right from 2010 to 2013. This is an opposite move to the desired one in order to reduce the cost of macroeconomic adjustment. Prices fell significantly, while at the same time the level of unemployment increased rather than decreased. This deterioration was happily reversed from 2014 onwards and by 2030 the Phillips curve is expected to return almost to the level it was before the crisis!

At the same time, while gross fixed capital formation and interest rates were declining during the decade of the crisis, this situation is expected to improve significantly in both Normal and Optimal Scenario (Fig. 12.12).

The high levels of unemployment that followed after the debt crisis in the Greek economy are in a phase of de-escalation without reaching pre-crisis levels until 2019. The Covid-19 pandemic significantly worsened the situation on the labor market. However, between 2021 and 2030, and especially under the conditions of the Optimal Scenario, the unemployment rate is expected to almost reach the level that existed before the crisis. The development of the unemployment rate is in the opposite direction from that of total investment in the Greek economy (Fig. 12.13).

During the crisis, companies reduced investment in order to prevent a sharp fall or in order to stabilize the return on capital, a trend which is

![Fig. 12.12 Real investments (% GDP) and interest rates (10-Year Government Bond Yield) (%) (Source Oxford Economics [2020] and authors’ calculations and creation)
expected to reverse from 2021 to 2030, resulting in a significant increase in capital stock (Fig. 12.14).
At the same time, the increased capital accumulation expected by 2030, in addition to the decrease in return on capital, is expected to be responsible for the high capital consumption as companies are invited to invest to maintain the functionality of existing investments. Consequently, there is not an increase in net investments, but, instead, an increase in gross investments, due to high depreciation. This is why Fig. 12.15 shows that we should expect a significant increase in depreciation in the two scenarios.

### 12.5 Public Debt and Economy

The evolution of public debt during the crisis in the Greek economy is one of the most critical issues and has particularly concerned the economic policy-makers in Greece and the European institutions.

As noted by Petrakis (2020) the debt problem has two sides: the flows added to debt and the accumulated public debt (stocks). Given that the debt has to be serviced every year when a country pays interest to its creditors, the rate of change in the existing debt in the absence of new borrowing can be the same as the interest rate. Accordingly, when the rate of change in nominal GDP becomes less than the interest rate, then the government’s debt-to-GDP ratio increases (the numerator
grows faster than the denominator) (Petrakis, Kostis, & Valsamis, 2013). Figure 12.16 shows the expected annual change in GDP, primary balance, and structural balance.

It is of particular importance that in 2018 and 2019 debt was reduced as a percentage of GDP. However, the crisis of the Covid-19 pandemic and the Greek government’s mechanism to stimulate the economy by increasing government spending despite declining government revenues are expected to significantly increase debt by 2020. But since then, debt (as a percentage of GDP) is expected to follow the course expected before the onset of the pandemic (Fig. 12.17). Under the conditions of Optimal Scenario, the assessment of the general government debt is much better, compared to those of Normal Scenario after 2021. From 178.7% of GDP for 2019 (334.2 billion euros), for in 2020 in Normal Scenario the debt as a percentage of GDP is expected at 192.03% (344.5 billion euros) while in Optimal Scenario at 190.7% (345.8 billion euros). Since then, it is expected to decrease by 150.1% (398.5 billion euros) in Normal Scenario and 132.3% (346.4 billion euros) in Optimal Scenario by 2030. Thus,

![GDP growth rate, primary balance and structural balance for Greece](image)

**Fig. 12.16** GDP growth rate, primary balance and structural balance for Greece (Source Oxford Economics [2020] and authors’ calculations and creation)
while as a percentage of GDP the debt is expected to show a significant decrease until 2030, at levels it seems to be steadily increasing at Normal Scenario and remaining at constant levels at Optimal Scenario.

As for the government balance (Fig. 12.18) and while it had surpluses from 2016 to 2019, in Normal Scenario—after the shock of 2020—it is expected to be negative in all years until 2030. Similar picture is expected
for the Optimal Scenario until 2022, however, after this year it is assumed to improve, with the expected result to be in surplus from 2025 onwards, reaching approximately 1.1% in 2030.

A similar picture is expected of the impact of the Covid-19 pandemic for the case of primary balance, which of course recovers and becomes surplus after 2022 in both scenarios until 2030. Figure 12.19 shows the evolution of the primary balance, by 2030, as a percentage of GDP.

Under the Normal Scenario a reduction is expected to the primary government balance by 2030, as from −4.57 billion euros (−2.6% of GDP) in 2020 is expected to approach 3.2 billion euros (1.2% of GDP) in 2030. In contrast, in the Optimal Scenario the primary result of −5.9 billion euros (−3.3% of GDP) in 2020 is expected to reach 11.25 billion euros (4.29% of GDP) in 2030.

### 12.6 Competitiveness

For the Greek economy there is a significant deterioration in the competitiveness of the economy up to 2010, but since then the picture of competitiveness is constantly improving. This improvement is due to the implementation of internal devaluation policies of austerity programs and the implementation of major structural reforms for the Greek economy.
In particular, the Real Effective Exchange Rate Index (REER) is a measure of the competitiveness of economies. The increase in a country’s REER, related to unit labor costs, leads to a decrease in that country’s competitiveness and to a deterioration in its current account balance. An increase in the unit cost index means an increased share of labor costs in the product produced. Increasing unit costs more than increasing labor productivity is a threat to the competitiveness of an economy.

The evolution of the REER index is presented in Fig. 12.20, where while in Normal Scenario the improvement in the competitiveness of the Greek economy is already significant, it should be expected even more significant in the Optimal Scenario as the additional structural reforms in the Optimal Scenario are expected to make the Greek economy considerably more competitive.

Indicative in this direction is the expected production of the manufacturing sector of the Greek economy, which is estimated to improve significantly under both scenarios after 2021 (i.e., after the negative shock of 2020) (Fig. 12.21).

Of course under the Optimal Scenario the manufacturing industry should be expected to be much more competitive as unit labor costs are estimated to move to significant lower levels (Fig. 12.22).

Respectively, Fig. 12.23 presents the evolution of the current account, until 2030, as a percentage of GDP.

![Fig. 12.20 Real Effective Exchange Rate](image)

*Fig. 12.20* Real Effective Exchange Rate *(Note A decrease in REER Index indicates improved competitiveness. Source Oxford Economics [2020] and authors’ calculations and creation)*
The current account balance is expected to remain in deficit near 1.5% to 2% in Normal Scenario, while in Optimal Scenario after 2026 it is expected to record surplus. More specifically, from a deficit of 3.7 billion euros (approximately 2.07% of GDP) in 2020, it is expected to reach – 3.34 billion euros (deficit of 1.26% of GDP) in 2030 in Normal Scenario, and from a deficit of 4.66 billion euros (approximately 2.57% of GDP)
in 2020, it is expected to reach 2.54 billion euros (surplus of 0.97% of GDP) in Optimal Scenario.

12.7 Key Determinants of GDP

Below are the developments concerning the main determinants of GDP, namely, private consumption, public consumption, investment and exports and imports of goods and services, in the two scenarios of the analysis. As will be noted below in both scenarios a significant effort is made to recover until 2030 to the levels that were in place before the crisis, with the improvement of TFP in the Optimal Scenario pushing more in this direction, although the level of consumption, investment and public consumption that was in place before the start of the crisis is not achieved. On the contrary, an improvement in exports of goods and services is expected to almost double in the two scenarios, but this is also expected in the case of imports.

Figure 12.24 shows the evolution of real private consumption in billion euros, by 2030, for Normal and Optimal Scenario.

Private consumption in the Optimal Scenario is throughout the period of analysis higher than that of Normal Scenario, as in this scenario a significantly higher product is produced by the economy. Thus, while private consumption is expected to reach around 123.2 billion euros in 2020, it is expected to reach 154.4 billion euros in Normal Scenario and 162.6 billion euros in Optimal Scenario in 2030.
Figure 12.24 shows the development of real private consumption, which is not expected to be affected by the improvement in TFP occurring in the Optimal Scenario. However, it should be noted that, in both scenarios, public consumption is expected to increase every year. In 2020, a significantly higher public consumption of 3 billion euros is expected in the Optimal Scenario (this is one of the fundamental differences between the two scenarios) than in the Normal Scenario. More specifically, the Normal Scenario from 41.22 billion euros in 2020 and...
the Optimal Scenario from 44.22 billion euros in 2020 is expected to approach 46.04 billion euros in 2030.

Investment is one of the most important drivers of economic growth and is significantly influenced by the improvement of TFP. This is why in the Optimal Scenario investments appear higher than in the Normal Scenario for the whole period considered. Thus, in the Normal Scenario investments from 21.6 billion euros in 2020 are expected to reach 34.2 billion euros in 2030, while in the Optimal Scenario from EUR 21.9 billion in 2020 are expected to reach 37.17 billion euros in 2030 (Fig. 12.26).

Finally, Figs. 12.27 and 12.28 show the evolution of real exports and imports (respectively) of goods and services, by 2030.

In the Optimal Scenario, higher exports and at the same time lower imports of goods and services should be expected for the entire period considered, indicating a much better evolution of the trade balance. Thus, exports of goods and services from around 63.7 billion euros in 2020 should be expected to reach 95.9 billion euros in Normal Scenario and 98.3 billion euros in Optimal Scenario. Accordingly, imports of goods and services from around 64.9 billion euros in 2020 should be expected to reach 95.6 billion euros in Basic Scenario and 90.4 billion euros in Optimal Scenario.

Figure 12.29 shows the average annual contribution of the main determinants to GDP for six different cases: (a) the period of economic prosperity from 2000 to 2007, (b) the period of crisis, i.e., from 2008

![Fig. 12.26 Real investments (Source Oxford Economics [2020] and authors’ calculations and creation)]
to 2019, (c) for the period from 2020 to 2023 for Normal Scenario, (d) for the period from 2024 to 2030 for Normal Scenario, (e) for the period from 2020 to 2023 for Optimal Scenario, and (f) for the period from 2024 to 2030 for the Optimal Scenario.

It is noted that the production model of the Greek economy has in all cases similar behavior: the main growth factor is private consumption (contributes by about 64% to 68% to GDP), followed by public consumption (contributes by about 20% to GDP) and investments (contributes by
about 15% to GDP). The role of trade balance (net exports) while negative until 2019, becomes zero until 2030 in Normal Scenario and positive during 2024–2030 in Optimal Scenario (contributes by about 2.5% to GDP).

### 12.8 Investments

Figure 12.30 presents a detailed picture of how investments in the Greek economy have evolved since 1999 and how they are expected to move, under normal circumstances, by 2030. In more detail, the government investments, private investments by business and private investment for dwellings and FDIs (in billion euros) for Normal Scenario are presented.

What is interesting is that, over time, the size and role of the investments of private business remains stable (although declined immediately after the crisis occurred), while at the same time the huge decline suffered by private investment in dwellings from 2008 onwards is evident. Significant, as well, was the shock of the austerity programs to government investment, which declined quite a lot after 2009. It is also evident that
the attraction of FDIs to the Greek economy is very low over time and that during the years of the great crisis it was almost zero.

In addition, Fig. 12.31 shows the differences between Normal and Optimal Scenario in terms of investments.

The large differentiation between Normal and Optimal Scenario concerns private business investment. This is a difference that goes from 0.3 billion euros in 2020 to 3.9 billion euros in 2025 and then decreases to 2.8 billion euros by 2030. It thus becomes clear that the improvement of TFP has a direct and greater impact on private business investment. In addition, the inward of Foreign Direct Investments (FDIs) in the Greek economy and private investment in dwellings should be expected to be slightly higher in the Optimal Scenario. Finally, it should be noted that government investments are not affected by the improvement of TFP in the Greek economy.

![Graph showing investments over time](image)

**Fig. 12.30** GDP and types of investments (EUR billion, fixed prices 2010) *(Source: Oxford Economics [2020] and authors’ calculations and creation)*
In recent years there have been several improvements in inclusiveness issues in the Greek economy and society. Nevertheless, there are still several challenges that need to be addressed.

Initially, it should be highlighted that by 2030, and especially on the basis of the Optimal Scenario, it should be expected that real disposable income will come closer to approaching the corresponding level of crisis in the Greek economy (Fig. 12.32).

The real disposable income in the case of Optimal Scenario is over time higher than Normal Scenario and by about 123.6 billion euros in 2020 is expected to reach 159.5 billion euros in Normal Scenario and 167.7 billion euros in Optimal Scenario. As a percentage of GDP the real disposable income picture is reversed as GDP in the case of Optimal Scenario increases significantly.

Both the overall savings level of the economy and the savings level of the personal sector are significantly higher in the case of the Optimal Scenario (Figs. 12.33 and 12.34). More specifically, national savings from 21.2 billion euros in 2020 are expected to reach 34.7 billion euros in
2030 in the Normal Scenario. Similarly, in the Optimal Scenario the national savings from 20.6 billion euros in 2020 are expected to reach 43.1 billion euros in 2030.

This significant improvement in both real income and savings of the Greek economy is expected to have a significant impact on how the Gini index for the Greek economy will evolve (Fig. 12.35).

Of course, the situation in the labor market is expected to significantly improve by 2030, which was also shown in Fig. 12.3 where the expected development for the unemployment rate was presented, but is
Fig. 12.34  Savings of personal sector (Source Oxford Economics [2020] and authors’ calculations and creation)

Fig. 12.35  Gini coefficient (scale from 0 to 100) (Note The estimates for the evolution of Gini Coefficient after 2020 in the two scenarios are based on the estimates for the change in GDP per capita in the two scenarios, since the relevant literature highlights a high correlation between GDP per capita and Gini Coefficient, above −0.7 [Moatsos et al. 2014]. Source Eurostat [2020a], Oxford Economics [2020] and authors’ calculations and creation)
also shown in Fig. 12.36 where the corresponding expected development for employment is presented.

More specifically, the number of people employed, by about 3.7 million in 2020 is expected to reach 4.05 million in 2027, declining to 4.03 million in 2030 in Normal Scenario. Respectively, in Optimal Scenario the number of employees is expected to reach 4.13 million people in 2027 and to decrease to 4.08 million people in 2030.

This significant increase in the number of employees is expected to be accompanied by a significant decrease in the number of people at risk of poverty or social exclusion (Fig. 12.37), where especially under the Optimal Scenario it should be expected to approach the rate which had before the crisis of the Greek economy.

Finally, Fig. 12.38 indicates the higher level of happiness which should be expected on the basis of Optimal Scenario, in comparison to the Normal Scenario, given that Optimal Scenario expects higher per capita income and better living conditions.
Fig. 12.37 Percentage of people at risk of poverty or social exclusion (Note: The estimates for the rate of people at risk of poverty or social exclusion after 2020 in the two scenarios are based on the estimates for the change in the unemployment rate in the two scenarios, since there is a high correlation between the rate of unemployment and the rate of people at risk of poverty or social exclusion, of 0.89 for the Greek economy from 2003 to 2018. Source: Eurostat [2020b], Oxford Economics [2020] and authors’ calculations and creation)
Fig. 12.38  Percentage of population declaring extremely happy (%) (Note The estimates of the evolution of the percentage of the population declaring extremely happy [responses from 8 to 10 on the scale from 1 to 10] after 2020 in the two scenarios are based on the estimates of the change in GDP per capita in the two scenarios, since there is a high correlation of 0.77 between happiness and GDP per capita based on World Happiness Report 2019 data [2008–2018 data for 156 countries]. Source European Social Survey [2018], Petrakis, Kafka, Kostis, and Valsamis [2021], Oxford Economics [2020] and authors’ calculations and creation)

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