CHAPTER 13

The Vulnerability of the Greek Economy and the Recovery Requirements After Covid-19

13.1 Introduction

This chapter concludes the third part of the book where the emergence of Covid-19 crisis is analyzed. Based on the deep and rapid nature of the pandemic’s impact on the economy, with accelerating and strengthening features of existing trends, a strong recessionary environment was created dominating 2020 with the weaknesses of the Greek economy deepening the recession.

The chapter addresses the main issues related to Covid-19 crisis and contains key short to medium-term forecasts reflecting the impact on the Greek economy.

Briefly, the channels diffusing the effects on the Greek economy (Sect. 13.2), the developments in the world economy (Sect. 13.3), the epidemiological and economic policy dealing with the crisis (Sect. 13.4), the vulnerability of the economy to Covid-19 (Sect. 13.5), and the evolution of the epidemiological and economic curve in Greece (Sect. 13.6) are described.

Section 13.7 presents the main forecasts for the Greek economy in Eurozone, including a Debt Sustainability Analysis, while in Sect. 13.8 the recovery requirements by 2030 are shown. Finally, in Sect. 13.9 the main points of the political economy in the Greek economy after Covid-19 are commented on.
13.2 **The Diffusion Channels of the Economic Impact**

Covid-19’s effects can be felt through four main channels: supply, demand, uncertainty, and international financial markets.

One way in which the virus harms the economy is to stop the supply of labor, goods, and services. People get sick, schools close, and parents stop working, staying home to take care of their children. Thus, quarantine can force people to work from home or even entire factories to suspend operations. Strict social distancing measures introduced in China and Italy exacerbated this effect through the supply channel.

Restrictions on people’s movements create a negative shock on labor supply (in essence, they create an increase in unemployment). It is estimated that these conditions will last for at least one or two quarters in China as well as in other countries with large outbreaks (Italy, Germany, France, and Spain) depending on the conditions that arise.

An additional channel transmitting coronavirus’s effects in the Greek economy is the disruption in global value chains. Although the participation of Greek companies in global value chains is still limited, the reduction, or even cessation in some cases, of the disposal of intermediate and capital goods is estimated to have negative effects on their production capacity. Additionally, the production of goods and particularly services may be adversely affected by the extended absence of workers from their duties as part of precautionary measures to prevent coronavirus spread.

On the demand side, people generally buy fewer goods, while also changing their consumer behavior, postponing the purchase of specific goods (such as durable goods) and immediately minimizing the consumption of others (such as restaurants). As a result, travel and transport also decline, while public health measures further restrict economic activity.

An important channel is the decline in external demand for Greek goods and services, due to the reduction in world trade and the deterioration of international economic climate. In fact, the effects on shipping will probably be particularly negative, where revenue momentum is mainly determined by the evolution of fares, largely reflecting fluctuations in world trade.

It is estimated, however, that the impact on travel revenues will be greater, given travel restrictions imposed and the general climate of vulnerability in the tourism industry.
Apart from external demand, the spread of coronavirus is expected to affect domestic demand as well. Private consumption is expected to decline due to deteriorating consumer confidence, precautionary measures to prevent the spread of coronavirus, and the pressure on disposable household income resulting from declining economic activity in general.

In particular, it is estimated that the sectors of transport, trade, catering, and services related to tourism, arts, entertainment, and leisure will suffer the most. Also, the rise in uncertainty and the deterioration of investment environment are expected to deter new investment plans and business risks.

Enterprises are subject to higher risks due to weak cumulative demand and the pandemic creates adverse effects. Uncertainty is likely to remain and fuel the slowdown in productivity growth with the delayed investment decisions of enterprises.

Finally, another important transmission channel is the deterioration in international and domestic financial conditions. In particular, rising uncertainty is fueling major turmoil in international financial markets, worsening the financing conditions of economies, and leading to a re-examination of investment positions around the world, with potentially negative consequences for ongoing investment plans and liquidity in the Greek economy generally. Additionally, the increase in financing costs due to the revaluation of risks internationally leads to a deterioration in terms and costs of raising new funding for banks, businesses, and households, as well as the Greek government.

In conclusion, the Greek economy is expected to be affected by declines in: exports, travel and shipping revenues, consumer and business confidence, international oil prices, production and employment due to precautionary measures taken to limit the spread of coronavirus.

### 13.3 Developments in the World Economy (May 2020)

Both in European and global level, the initial effects of Covid-19 on economies were determined by the type and severity of the social distance measures taken to safeguard public health, in combination with the individual economic policies implemented by national governments to address the economic crisis caused by the pandemic. Further consequences will be determined by pandemic’s development scenarios and the structural
economic vulnerability of each country to Covid-19, which widely varies. In Europe, the Eurozone’s southern economies are more vulnerable to Covid-19 crisis, as they have less political and fiscal space, in comparison with economies in the north. This reinforces the need for coordinated European economic policy.

Within a short period of time, economic activity in most countries was severely hurt, showing the magnitude of the economic shock from Covid-19, while initial negative forecasts on the macroeconomic data of economies for 2020 were dramatically revised due to the rapid spread of the virus and continue to be revised downward as clarity emerges on the first quarter of the year.

Global economic data generally show large and broad shrinking economic activity for the first and second quarters of 2020, with global gross domestic product (GDP) estimated to fall by more than 3%. This decline is almost equal to the global downturn seen during the 2008 financial crisis (global GDP in 2009 fell by 1.1%). This was mainly due to the change in economic behavior of individuals; the change (reduction) in domestic expenditure by households was much higher than GDP change—despite the spill over effects on global economy from the health crisis in China. Most worrying, however, is the fact that most economies implemented lockdowns around mid-March, while the restrictive measures were gradually tightened until April, indicating a deterioration of the global recession in the second quarter.

As expected from the spread of Covid-19, China’s economy experienced a major recession in the first quarter of 2020 (Fig. 13.1), with GDP contracting by 6.8% compared to the corresponding quarter of 2019 (13.3% points difference compared to the 2019 Q1 growth rate). At the same time, however, growth in Chinese economy is expected to recover in the second quarter of 2020, in contrast to economies in Europe (Fig. 13.1) and United States, where the recession due to the time lag of virus spread is seen continuing into the second quarter and be deeper—in Eurozone GDP decline in the second quarter of 2020 is expected to reach 13.9% (15.15 points difference compared to the 2019 Q1 growth rate).

Although economic growth rates in the second semester of 2020 are generally expected, at a global level, to recover and forecasts for countries’ annual GDP in 2020 deviate significantly (Consensus Forecasts, 2020), a deep recession for 2020 in all economies is inevitable, driven by plunging consumption and investment, with developed economies expected to be
hurt more. In global economy, the recession is expected to be $-4.8\%$, when in 2019 the increase in global GDP was $2.5\%$. At the same time, however, significant recovery is expected worldwide in 2021.

Consequently, global trade is estimated (World Trade Organization [WTO], 2020) to fall between 13% (optimistic scenario) and 32% (pessimistic scenario) in 2020 (more than the Great Recession), reflecting the extent of damage to value chains but also the fact that, in general, changes in trade levels are more volatile than GDP growth globally, although both figures tend to move in the same direction. At the same time, inflation is globally projected (Oxford Economics, 2020a) to fall to 2.6% in 2020 from 3.2% in 2019, but in Eurozone and United States it will be stagnant (0.1% and 0.2%, respectively). The magnitude of the shock in demand dominates rising prices due to the shutdown of the supply chain to such an extent that inflation has become negative this year. Its levels were, even prior to the Covid-19 era, under the targets of most economies, but falling commodity prices are also driving down inflation expectations.

High debt and rising service costs are making it more difficult to pursue anti-cyclical fiscal policies. During the first wave of Covid-19, many governments could borrow at historically low-cost levels, while low interest rates in core developed economies are expected to continue after lockdowns’ removal. On the contrary, borrowing costs have risen sharply for many emerging economies (International Monetary Fund [IMF],

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**Fig. 13.1** Real GDP Growth in the first half of 2020 (Q1 and Q2, y/y percentage change) *(Note The data for 2020 Q2 are forecasts. Source Oxford Economics [2020a] and author’s own calculations)*
2020) amid the pandemic, making them more vulnerable. Another common factor in all economies is the significant increase in fiscal deficits and public debt (as a percentage of GDP), due to the need for increased public spending, resulting in an expected increase in global debt (IMF, 2020) to 96% (in terms of global GDP) compared with 83.3% in 2019.

Of course, the above estimates are a basic approach on how economic figures may develop based on the conditions that have been formed until the time this book was written (May 2020). Control, monitoring and detection of the virus and social distance measures are preventing a major second wave, keeping new cases at manageable levels, thus allowing production and consumption to recover in the second half of 2020. At an economic policy level, governments and central banks will continue to support economies to the extent necessary by mitigating the short-term effects of Covid-19; this mainly requires that monetary policy will continue to finance fiscal needs of state, preventing anti-inflationary pressure, while at a political level, the basic scenario translates into international cooperation, and not international competition, to tackle the health and economic crisis.

However, uncertainty about the existence and magnitude of a possible second wave (or more) of Covid-19, the scale of restrictive measures, political developments and progress on pharmaceutical and medical research can change the existing prospects.

In a pessimistic scenario, the discovery of a vaccine would take longer time than expected, while other major waves of the pandemic is going to emerge after the early termination of the first lockdowns, allowing for transmission of the virus from country to country and seriously undermining trust among consumers, businesses, and markets. Such a development would completely change the figures of countries’ economies.

Another danger exists in economic policy being unable to cope with the demands of the recession and pressure from increased debt levels among states, developments that would be worsened by the impossibility of international cooperation. Especially at the regional level of Eurozone, a combination of the above would put pressure on the European Union (EU) structure.

On the contrary, the optimistic scenario would include the effective treatment of the virus by health systems and competent bodies (minimizing contagion of the virus) at the beginning of the third quarter of 2020 and a treatment being found before 2021, while the fiscal measures
to strengthen economic activity would further expand, helping offset the recession in 2020 and leading to a strong recovery in 2021.

13.4 The Greek Economy’s Epidemiological and Economic Policy in Covid-19 Crisis

Globally, the management of the Covid-19 crisis has developed into a trade-off between the operating of economies and the value of human life. Some leaders gave more weight to the former, rather than the latter. In Greece, a choice was made to protect society, in the second option. This proved to be an excellent policy as the other choice (of favoring the functioning of the economy) had seriously back fired effects, causing nearly the speedy collapse of economies, along with considerable social pain associated with the choice of not protecting human life (elderly [Sweden]).

The political choice therefore made in the case of Greece was based on two points. The choice between the value of human life and the operating of the economy (where the former was chosen) and the choice of gradual development, as a response from economic policy. Thus, there was no one-off response program in the broader picture of the problem, but a wait-and-see attitude was adopted, which implied the formation of economic policy in parts.

The gradual development of economic policy as a defence was at first preferable, for a number of reasons:

- Until the start of April 2020, there was a low amount of epidemiological and economic information, making it difficult to see the immediate future. So, we knew very little about epidemiological characteristics (behaviors, drugs, tests, etc.). As time goes by there is more complete information, allowing an exit road map to be drawn from restrictive social policies.
- There were not enough analyzes on the cost of the “sudden stop” of economies, given that this was almost surprisingly implemented for epidemiological reasons.
- There was no clear the international, and particularly the European, economic reaction to the crisis, but at that time only national efforts had taken place.
But as time moves on, all of the above information has accumulated and the choices available are more visible. Therefore, it can be seen that the wait-and-see tactic should be replaced by an approach adopting specific future scenarios, one of which will be the most likely and one of which will be the worst.

If, for any reason, conditions change (extension of closed enterprises, discovery of tests, drugs, vaccines, etc.), the prevailing scenario will be replaced by a better or worse one.

As this is being written, we assume that in the Greek economy (as seen below) the recession will be around $-6\%$ and in Eurozone around $-5\%$.\(^1\)

These estimates suggest (critical assumption) that the measure of closing down businesses will last for 6–12 weeks.\(^2\) With this recession and forecasts below, it can be seen that the crisis maintains a manageable nature, allowing for a worse scenario, if required. Certainly, the worst-case scenario will prompt a wider European reaction, that is an important determining factor of national policies.

Epidemiological policies have evolved in Greek society as shown in Fig. 13.2, initially with the first set of government measures and then with the gradual implementation of social distancing measures and the cessation of economic activity (restaurants, shopping malls, shops, hotels).

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**Fig. 13.2** Greek government’s actions to reduce the impact of the pandemic in Greece and fiscal measures announced to strengthen businesses and employees (Source Our World in Data [2020] and author’s own calculations)
The epidemiological policies implemented resulted (see Sect. 13.6 below) in the significant levelling of the epidemiological curve. Then all the economic policies implemented in the Greek economy are presented (IMF, 2020). These are a combination of national and European response measures until early April 2020. The 9th of April 2020 Eurogroup decisions were added to these.

I. Fiscal Policy

The government announced a package of measures totalling 7.5% of GDP (2019) (15 billion euros)\(^3\) financed by national and European resources (and via the redirecting of European resources). The basic measures include: (a) increasing health spending to hire 2000 doctors and nurses; provision of medical supplies and benefit payments to health care employees; (b) transfers to vulnerable individuals, including cash payment by the end of April and full coverage of pensions and health benefits to workers and self-employed professionals hit hard, extension of unemployment benefits by two months, and provision of special leave to parents to care for children and students who are forced to stay away from school; and (c) support the liquidity of businesses that are severely affected through subsidized loans, loan guarantees, interest payments subsidies and deferred tax payments and social security contributions.

II. Monetary and Macro-Financial Measures

European Central Bank (ECB), in addition to initial monetary policy measures taken in March 2020 (see Chapter 3, Sect. 3.7) to support member states’ economies, announced around late April 2020 additional long-term refinancing operations to ensure adequate liquidity and smooth money market conditions during the pandemic period.

Thus, after the expansion of the asset purchase program (APP), the implementation of the pandemic emergency purchase programs (PEPP), the expansion of the corporate sector purchase program (CSPP), the easing of collateral for Eurosystem refinancing operations (main refinancing operations [MROs], long-term refinancing operations [LTROs], targeted longer-term refinancing operations [TLTROs]), the temporary easing of fixed interest rate liquidity and more favorable terms for long-term financing of credit institutions (TLTRO-III), ECB decided to carry
out a new series of seven more long-term refinancing operations, the pandemic emergency longer-term refinancing operations (PELTROs).

The PELTROs will be conducted as fixed rate tender procedures with full allotment, consisting of a series of non-targeted Pandemic Emergency Longer-Term Refinancing Operations carried out with exceptionally favorable terms, with the interest rate being 25 basis points below the average interest rate applied in Eurosystem’s main refinancing operations, during its application. Their goal is to support liquidity in the euro area’s financial system and to contribute to the smooth operating of financial markets by providing an effective backstop after the end of the LTROs that were held as of March 2020 and long-term financing of parties.

To mitigate rating downgrades, ECB announced that by 2021 it would exempt the eligibility of marketable assets used as collateral in Eurosystem credit operations falling below current minimum credit quality requirements of “BBB-,” as long as their rating remains at or above “BB” and “BB +,” while assets falling below the minimum credit quality requirements (below “BB”) will be subject to a haircut based on their actual score.

At the same time, major institutions will be able to operate temporarily under the Pillar 2 Guidance, the capital conservation buffer, and the liquidity coverage ratio (LCR), while new rules on the composition of capital meet the Pillar 2 Requirement (P2R) front-loaded to release additional capital.

The ECB also recommended that financial institutions cover losses from non-performing loans backed by public guarantees related to Covid-19 and select IFRS9 transferable rules to avoid procyclical assumptions on foreseeing losses, while seeking that dividends not be paid for the 2019 and 2020 financial years, but instead use the available capital to support households, small businesses, and corporate borrowers.

It is difficult to accurately calculate the liquidity injections provided to the Greek economy by the ECB’s decisions. If we accept that there is a participation rate similar to that of the EU budget (1.4%), then we would expect an amount of around 10–12 billion euros in available liquidity. This liquidity may be injected into the private or (most likely) public sector.
III. The Decisions of the April 9, 2020 Eurogroup

The importance of the 9th of April 2020 Eurogroup decisions is fourfold:

- They stabilized within the European reaction framework to Covid-19 crisis, allowing for the stabilization of the entire political functioning of Eurozone and EU.
- In the context of stabilizing Europe’s reactionary framework, ECB can implement its decisions in a more stable environment.
- Conditions are created for a second round of large-scale measures with the main feature being the monetization of debt with the ECB’s Outright Money Transactions (OMT) and the France-inspired recovery fund.
- They activated (together with the ECB’s decisions) the ability of the Greek state to turn to the markets at a sustainable cost (Fig. 13.3). While the spreads of Greek and Italian bonds, versus the yield of the German 10-year bond, peaked on March 18, there was then a de-escalation, with borrowing costs remaining at satisfactory levels.

![Graph](image)

**Fig. 13.3** Greek and Italian 10-year bond spreads against German 10-year bonds (January 2020–April 2020, in base points) (Source: Investing.com [2020] and author’s own calculations and creation)
In assessing the immediate impact of the Eurogroup’s decisions on the Greek economy, it is estimated that the benefit could reach 6–7 billion euros. Essentially, via the European Commission’s SURE packages, it is estimated that the inflow could amount to around 1.5–2 billion euros.

As far as the European Stability Mechanism (ESM) is concerned, Greece is entitled to 2% of its GDP so it could ask for an amount of 4 billion euros for support. However, the use of the ESM’s enhanced conditions credit line (ECCL) by any country bears the stigma of its use and therefore makes it problematic. It is also unlikely that there will be any amounts drawn from the so-called public liquidity buffer.

Finally, the activation of the European Investment Bank’s financial program that will be based on guarantees from the European budget creates additional funding opportunities, mainly for small and medium-sized enterprises (SMEs).

The Eurogroup’s decisions are not in addition to those described in parts I and II, with the exception of the ECB’s TLTRO actions, which create additional liquidity opportunities for banks, the size of which cannot be estimated.

An important question that arises in relation to the economic policy being followed is whether the primary issue of the economy is the fall in total demand or the disruption to the supply of products. It is clear that supply problems were the first to appear in the economic system which were then followed by problems to total demand.

Consequently, policies to be implemented at the mature stage of the crisis must be based on the following three points (IMF, 2020):

- securing the operation of the key sectors of the economy,
- securing the livelihoods of the people affected by the crisis, and
- avoiding extensive financial shocks.

Thus, these policies in the short-term have a monetary and fiscal character and in the medium term a restructuring nature. The difference with 2008 crisis policies lies in the fact that fiscal policy now plays a more serious role as, firstly, monetary policy has been almost exhausted (with the exception of debt monetization) due to approaching zero-lower bound interest rate and, secondly, because fiscal policy can better address supply distortions.

The Merkel-Macron agreement proposing the introduction of a recovery fund to restart the European economy that will include 750
billion euros of aid for member states hurt by the crisis, is a step in this direction.

This amount will be raised from international markets and guaranteed by the EU’s seven-year budget and the annual contributions of states. It will be provided in the form of grants under the EU’s multi-year financial framework. This will ease the ECB’s burden of dealing with the crisis, providing room for a common form of European fiscal policy. It has been proposed that European Commission will be authorized to borrow the money, with resources being directed particularly to heavily affected countries and sectors facing the risk of collapse due to generalized restrictive measures.

For a long time, Germany was wary of providing money as grants that would come from loans as this way European debts would not have to be repaid by the state receiving the funds, but jointly and probably through the European budget or the EU’s own revenues. The Merkel-Macron agreement is not about the issuance of a corona bond, but of a relative solution to common European lending, and under this plan, the rules of the European budget apply and only programs will be funded and not the state budget of individual member states. An important difference from the corona bonds is that the common risk related to these debts is limited to guarantees member states have provided to the EU budget.

However, this plan is the first step in the mutualization of European debt, in what could be a possible starting point for the establishment of a European fiscal union—an important step toward European integration. With this proposed solution, the foundations for overcoming the pandemic crisis have been laid for Greece (as well as for other regional countries).

13.5 The Vulnerability of the Economy

To examine the vulnerability of the Greek economy, we focus on specific sectors of the economy and mainly sectors that cover the shock to labor supply and production lines, the capacity of health systems, and the production structure.

Then we combine the results of the last column from Table 13.1 (structural pandemic vulnerability score) with Covid-19 related deaths (data from the 25th day of the crisis, i.e., the 9th of April, when this is being written), with April 2020 forecasts for GDP growth in 2020 and with changes in forecasts (April 2020 compared with January 2020). In other words, we look at the projected change in GDP for Greece in
Table 13.1  Oxford economics structural pandemic vulnerability score

|                  | Supply chain exposure | Share of population | Share of hospitality & tourism | Share of manufacturing | Internet speed | Share of self-employed | Share of small firms | Hospital beds for acute care | Total score |
|------------------|-----------------------|---------------------|--------------------------------|-------------------------|---------------|------------------------|----------------------|-----------------------------|-------------|
| Greece           | −0.8                  | 1.4                 | 2.1                            | −1.2                    | 1.8           | 3.0                    | 2.3                  | 0.1                         | 1.0         |
| Italy            | −0.9                  | 1.7                 | 0.4                            | 0.1                     | 0.9           | 1.3                    | 1.7                  | 1.0                         | 0.7         |
| Czech Republic   | 1.7                   | 0.2                 | −0.6                           | 1.6                     | 1.0           | 0.1                    | 0.0                  | −0.4                        | 0.4         |
| Netherlands      | 1.3                   | 0.0                 | −0.5                           | −0.5                    | −0.5          | 0.8                    | −0.3                 | 0.7                         | 0.1         |
| Belgium          | 2.0                   | 0.0                 | −0.6                           | −0.4                    | 0.2           | 0.4                    | 0.5                  | −1.2                        | 0.1         |
| Spain            | −0.9                  | 0.2                 | 1.5                            | −0.6                    | −1.0          | −0.4                   | 0.9                  | 1.2                         | 0.1         |
| Hungary          | 1.7                   | 0.1                 | −0.5                           | 0.8                     | −1.0          | −1.1                   | 0.3                  | −0.5                        | 0.0         |
| Austria          | −0.1                  | 0.0                 | 1.0                            | 0.6                     | 1.1           | −0.4                   | −0.7                 | −1.6                        | 0.0         |
| Sweden           | −0.8                  | 0.5                 | −0.7                           | −0.1                    | −1.1          | −0.7                   | −0.9                 | 1.5                         | −0.2        |
| Germany          | −0.4                  | 1.2                 | −0.7                           | 1.1                     | 0.1           | −0.8                   | −1.5                 | −2.1                        | −0.4        |
| Denmark          | −0.9                  | 0.2                 | −0.8                           | −0.3                    | −1.0          | −1.2                   | n/a                  | 1.1                         | −0.4        |
| France           | −1.0                  | 0.4                 | −0.2                           | −0.8                    | −1.2          | −0.6                   | −0.7                 | 0.6                         | −0.4        |

Source Oxford Economics (2020b) and author’s own calculations
2020 under normal circumstances— in January 2020—compared with the predicted GDP rate change in 2020 during crisis conditions, April 2020.

From Table 13.2 it can be seen that despite all indicators showing that Greece would be hit hardest by Covid-19, it showed strong resilience. Thus, while it is in first place among 13 countries in the column of the structural pandemic vulnerability score, it is 10th place in terms of deaths from Covid-19 per 10,000 inhabitants on the 25th day of the crisis (i.e., on the 9th of April when this was written), and occupies 2nd place in terms of weakest GDP forecast for 2020 and top position regarding the worsening of the GDP forecast within 2020.

The above leads to the conclusion that, in terms of institutional conditions of health policy and economic policy, the Greek economy’s performance was satisfactory. Noted that the better performance of the Greek economy, in comparison with other European countries presented in the table, should be primarily attributed to policies pursued and also to the institutional and cultural organization that existed or developed during the crisis (social discipline, functioning of the NHS, and scientific community, etc.).

13.6 THE EPIDEMIOLOGICAL AND ECONOMIC CURVE IN GREECE

The aim of the epidemiological measures is to level the curve of cases and minimize the recession related mainly to the lockdown measures.

At this point, we present the flattening of the epidemiologic and recession curves, to get a sense of the relationship between these two policy objectives.

It is very difficult to imagine what the Greek case would look like if epidemiological and economic measures had not been taken, at least in terms of the epidemiological curve, so that we could reproduce Fig. 13.4 on a theoretical basis.

That is why we produced Fig. 13.5 that approaches the logic of Fig. 13.4. At the top graph of Fig. 13.5, there are presented the two epidemiological curves: what could happen “if Greece was Italy” and the second is Greece’s actual curve.

For this reason, we assume that Italy’s curves are characteristic of the uncontrolled epidemic case, i.e., without public health measures, although this is not accurate. However, delayed health care (political
### Table 13.2 Pandemic vulnerability score and GDP growth

| Country          | Structural pandemic vulnerability score<sup>a</sup> | Deaths from Covid-19 per 10,000 inhabitants on the 25th day of the crisis<sup>b</sup> | GDP (%) change April 2020 for 2020 | Difference of predictions April-January 2020 |
|------------------|--------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------|
| Greece           | 1                                                | Spain 1.03                                                                     | Italy −7.62                       | Greece −8.19                               |
| Italy            | 0.7                                              | Italy 0.57                                                                     | Greece −5.94                      | Italy −7.91                                |
| Czech Rep.       | 0.4                                              | Netherlands 0.32                                                               | Portugal −5.79                    | Portugal −7.13                              |
| Portugal         | 0.3                                              | Belgium 0.3                                                                   | Spain −5.61                       | Spain −6.83                                |
| Netherlands      | 0.1                                              | France 0.3                                                                    | Austria −5.58                     | Austria −6.56                              |
| Belgium          | 0.1                                              | UK 0.21                                                                      | France −5.32                      | France −6.55                               |
| Spain            | 0.1                                              | Portugal 0.16                                                                | Belgium −5.31                     | Belgium −6.52                              |
| Hungary          | 0                                                | Sweden 0.09                                                                  | UK −5.12                          | Hungary −6.33                              |
| Austria          | 0                                                | Austria 0.06                                                                  | Sweden −4.70                      | UK −6.16                                   |
| UK               | −0.2                                             | Greece 0.04                                                                   | Germany −3.88                     | Sweden −5.94                               |
| Sweden           | −0.2                                             | Hungary 0.04                                                                  | Netherlands −3.59                 | Germany −5.12                              |
| Germany          | −0.4                                             | Germany 0.04                                                                  | Hungary −3.05                     | Netherlands −4.92                         |
| France           | −0.4                                             | Czech Rep. 0.02                                                              | Czech Rep. −1.75                  | Czech Rep. −2.04                           |

*Note* The death toll per 10,000 people as estimated on the 25th day of the Covid-19 crisis for each country, with the first day of the crisis being the day with 100 Covid-19 cases per 60 million people. So for Greece, day 1 is March 5, 2020, for Italy it is February 22, for France, Germany, Austria and Spain it is March 3, for the Netherlands and Sweden it is March 4, for Belgium it is March 5, for the United Kingdom March 6, for the Czech Republic March 7, for Portugal March 8, and for Hungary March 13. “GDP (%) change April 2020 for 2020” is the difference between the forecast in April and January when the crisis has not yet been integrated. The April forecasts taken into account the negative conditions as known in March. They therefore include a large part of the negative effects from Covid-19.

*Source* <sup>a</sup>Our world in data (2020), <sup>b</sup>Oxford Economics (2020b), Oxford Economics (2020c), and author’s own calculations.
choice?) create a worst-case scenario and this can be compared with any other country case.

While the upper part of Fig. 13.5 is easier to be understood, the lower part needs further explanation. The question we are called upon to answer concerns not so much a projection of the future based on the current situation ("Greece with economic measures" curve) but the economy’s state in case economic policy had not been activated to mitigate the effects of the crisis, including the decision to shutdown the economy.\(^6\)

So, what would economic policy in 2020 have been like if it had not been adapted to developments? In other words, if policy “insist and succeed” in increasing state’s revenue and did not increase its public expenditures, or if the situation evolved like it did in January 2020.

We get the answer by looking at Fig. 13.5. At the bottom of the chart there are two GDP growth curves. The first one is how Greek
GDP is forecast to evolve after incorporating (a) negatively events triggered (closing down for 6–12 weeks starting as of early March) and (b) the increase in public spending, deficits, and debt due to interventionary
macroeconomic measures. The second one contains the first factor (the 6–12 week close down starting from the beginning of March) but not the second factor, as the January 2020 forecasts are used for public expenditures, deficits, and debt; as things would be if new macroeconomic requirements created by the recession had not begun to emerge.

Essentially, we find that both curves “flatten,” but the epidemiological one much more.

### 13.7 Predictions for the Eurozone and Greek Economy

Up until now, while we were at the start of the crisis, we realized that it is very difficult to assess the impact of Covid-19 on the Greek and global economy.

We know with enough uncertainty that a month of closing down the Greek economy (Organisation for Economic Co-operation and Development [OECD], 2020) costs about 35% of annual GDP.

Today we are able to make relatively accurate predictions after having already the experience of March and April 2020, which was a period that fully reflected the negative effects and based on the critical hypothesis that the activity’s closure in basic economies will be maintained for 6–12 months.\(^7\)

These predictions (Consensus Economics, 2020) lead to the following picture for the Greek economy (Table 13.3).

Consensus Forecasts predicts a recession of \(-7.9\%\) for Greece in 2020. We are adopting here a slightly smaller recession for the Greek economy

**Table 13.3** Forecasts for the Greek economy

|                      | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------|------|------|------|------|------|------|
| Gross Domestic Product (% change on previous year) | -0.2 | 1.5  | 1.9  | 1.9  | -7.6 | 5.3  |
| Industrial production (% change on previous year)  | 2.6  | 3.9  | 1.6  | -0.6 | -8.1 | 4.9  |
| Consumer prices (% change on previous year)       | -0.8 | 1.1  | 0.6  | 0.3  | -0.4 | 0.6  |
| Current account (Bn USD)                            | -3.4 | -3.8 | -6.2 | -2.9 | -6.1 | -5.7 |

*Note* Nominal GDP, USD 2018. Forecasts have been made in May, 2020

*Source* Consensus Economics (2020) and author’s own calculations
(−6%), because the model we use comes from the partnership of National and Kapodistrian University of Athens (NKUA) with Oxford Economics (April 2020) and this is the exact recession rate given by the relevant model. For Eurozone, the model predicts a recession of −5%.

These estimates are comparable to what the largest companies predict, with the GDP change rate in 2020 for the Eurozone to the order of −7.9%. In comparing Oxford Economics’ forecast with the other projections, the forecast we follow is at 60–80% of the Consensus Economics mean.

13.8 The Recovery Requirements up to 2030

As this book was written in May 2020, we were already in the midst of the Covid-19 financial crisis and we had already realized how serious it would be but it was difficult to get an accurate picture of the extent of the crisis.

The IMF in its spring report in April 2020 came out with some forecasts on the depth of the recession, which in some cases were surprisingly bad. More particularly for the world, it predicted a recession of 3% as its base line scenario, for Eurozone −7.5 and −10% for the Greek economy.

We here accept the assessment of Oxford Economics at the end of April 2020, which foresees a global recession of −3%, −5% for Eurozone, and −6% for the Greek economy as its base line scenario.

The Covid-19 recession, when compared to previous recessions, has one particularly important feature. It mainly reflects the economies’ lockdown due to the social distancing policies since the most important assumed factor forecasts number of weeks the economy will remain closed. In this sense, most of the recession will be concentrated in the first half of 2020 for most of the world economies, including Greece.

Of course, there are many concerns relating to the concept of lockdown, how extensive it can be, and so on. Therefore, forecasts, even if they have an agreed technical horizon, can differ significantly from each other.

However, in the case of Covid-19, there is a special feature regarding the recession. They are only referred to as predictions. In fact, they incorporate the recession that has already been caused by the lockdown. Forecasts of economic activity are of particular value when they are able to assess how future economic activity will evolve and not when they are assessing the damage that has already been done. This is especially
true when most of the expected recession comes from lockdown. This is essentially the difference between an endogenous and exogenous black swan-type crisis.

Of course, previous losses leave significant marks on the economy that produces losses in the near future (public revenues, bankruptcies, etc.). Particularly on the Greek economy, when there was a similar recession in 2011, we knew that this was because a large part of the production network had been destroyed, such as business activity related to the public sector, construction, etc. Now the same is not the case as a significant part of economic activity has been instructed to close down.

Figure 13.6 shows the annual change in GDP growth rate at real prices in the Greek economy. The reduction of 6% is a very big recession, which of course for Greece, is being compared with that of 2011.

There are respective developments in debt growth, while the current account balance (as a percentage of GDP) is at a much better level than in 2011 (Fig. 13.7). However, due to the short-term and exogenous nature of the crisis the impact on other figures is not in line with that seen in 2011 despite the very large decline in GDP for 2020.
The interesting thing is that in the next year GDP will increase significantly, while debt and unemployment appear to be significantly reduced. Developments in unemployment and investment are shown in Fig. 13.8.

At the same time, in analyzing the changes in the impact of GDP determinants, it can be seen that the main declining effects primarily come from consumer spending which is reduced by 7.7 billion euros in 2020 and, secondarily, by a decrease in investments in 2020 by 0.7 billion euros. Only government consumption saves the day in 2020 (Fig. 13.9).

The implementation of an economic recovery program after Covid-19 can be carried out in two phases: In the first, which will cover the two years 2020–2021, the main emphasis will be on policies to address supply problems and demand enhancement, and consequently to reduce the enlarged production gap, while the second period (2022–2030) will be a period of implementing a broader program of structural changes, expansion, and diversification of supply opportunities.

These structural changes should be focused on changing the economy’s productive prototype, as the fact that the production focuses on only a few sectors (tourism, shipping, agriculture) makes the economy particularly vulnerable to external shocks. Also, a critical element of the implementation of the structural change program is to focus simultaneously
on five factors: sustainable development, sustainable governance, inclusive growth, social behavior friendly toward development, and dynamic growth.

It is noted that this will create favorable conditions for the implementation of a development structural program, even if there are epidemiological disturbances (however, assuming of lesser importance). This point is particularly emphasized because the implementation of structural change programs is greatly facilitated particularly when it is based on a strong recovery of demand and growth as expected after the end of epidemiological phenomena.

It is also emphasized that the experience of implementing and economic restructuring for ten years, along with the coordinated social response of citizens on the effects of the crisis, have created a favorable background for social behavior, allowing for the stable and systematic implementation of a structural change program that will include decisions on productive reconstruction and institutional effectiveness.

After all, the messages gathered about the recessionary need to transform the economy are now very difficult to ignore by both society and political power. Thus, two scenarios for the Greek economy can be specified until 2030.
The Normal Scenario which includes the developments on the recession from Covid-19 and the Optimal Scenario which incorporates the conditions of an economic recovery. The Optimal Scenario differs from the Normal (Crisis) Scenario because:

- It includes additional fiscal interventions for 2020–2021 amounting to 3 billion euros (in addition to those that have already been integrated into the normal scenario).
- It includes the impact on GDP of a comprehensive structural intervention program that takes place from 2021 onwards. This program specifically affects total factor productivity (TFP), which in turn affects GDP growth and a series of key economic variables. This analysis, which examines how TFP is affected in order to influence GDP growth, is the subject of the next book in the series entitled *The Evolution of the Greek Economy: Past Challenges and Future Approaches* (Petrakis & Kostis, in press).

Figure 13.10 compares the Normal (Crisis) Scenario (Crisis Model) with the Optimal Scenario (Optimal Model).

The difference between the potential and the actual product produced is the reason that the exit gap for the Greek economy has been negative.
since the beginning of the 2008 crisis and is expected to remain negative (Fig. 13.11). Additionally, the level of the output gap is crucial for determining inflationary pressures in the economy. A large negative output gap suggests inflation should be low. It is a situation where monetary policy
will be lax (low interest rates to stimulate growth and reduce negative output gap). A positive output gap, where growth is above the trend rate of growth, should lead to inflationary pressures (Figs. 13.12 and 13.13).

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**Fig. 13.12** Output gap and inflation (*Source* Oxford Economics [2020c] and author’s own calculations)

**Fig. 13.13** GDP growth rate, primary balance, and structural balance for Greece (*Source* Oxford Economics [2020c] and author’s own calculations)
After Covid-19, a risk to the sustainability of Greek debt will appear, if debt sustainability assessments are held with 2020 and 2021 data and pessimistic medium-term forecasts on development and primary surpluses. Of course, due to the peculiarities of the debt structure, the real risk of debt sustainability is very small, given that the bonds traded on the international market (50–60 billion euros) should be taken into account and not the total debt!

In general, however, as the growth rate of a country is less than the funding cost, there is a question of sustainability and fiscal discipline. That is why (a) it is imperative to increase the growth rate and (b) it is useful to consider the proposal of debt forgiveness.

To examine debt sustainability, two criteria are used that correspond to two different approaches without, of course, changing the essence of the issue:

- Sustainability criterion is the debt to GDP ratio taking into account the rate of growth of nominal GDP, primary balance, and financing cost within the same criterion. Usually this is a multidisciplinary methodology used by rating agencies.
- Sustainability criterion based on 1.5% in financing needs in relation to GDP.

Table 13.4 shows the level of debt as a percentage of GDP and the level of gross financing needs (GFNs) based on the IMF’s (2019) Article IV Consultation in November 2019 and Normal and Optimal Scenario (which include the appearance and effects of the Covid-19 pandemic) until 2028.

Debt sustainability check with 2020 data is based on the following assumptions (Table 13.5):

- debt to GDP ratio at 189.6%,
- financing costs at 2.5%, and
- medium—to long-term nominal growth 1.5\%.

Under these conditions (2.5% funding cost) a primary balance of more than 2% is required to start reducing the debt to GDP ratio. Depending on the scenario used, different conclusions can be drawn. That is why it is imperative to implement a scenario that will give high (nominal) growth rates.
Table 13.4  Debt and gross financial needs in IMF and the normal and optimal scenario

|            | IMF | Normal | Optimal |
|------------|-----|--------|---------|
|            | Debt % GDP | GFN % GDP | Debt % GDP | GFN % GDP | Debt % GDP | GFN % GDP |
| 2020       | 171.4 | 5.8    | 189.6 | 12.0   | 190.7 | 12.8 |
| 2021       | 166.3 | 5.6    | 182.3 | 9.4    | 186.0 | 9.6  |
| 2022       | 161.0 | 6.5    | 175.2 | 9.0    | 179.1 | 8.8  |
| 2023       | 155.6 | 6.6    | 170.1 | 9.2    | 174.1 | 8.4  |
| 2024       | 152.0 | 6.9    | 165.8 | 9.5    | 168.2 | 7.9  |
| 2025       | 150.0 | 8.5    | 162.1 | 11.2   | 161.9 | 8.8  |
| 2026       | 148.1 | 8.9    | 158.6 | 11.7   | 155.7 | 8.7  |
| 2027       | 146.5 | 7.7    | 155.5 | 10.6   | 149.5 | 7.1  |
| 2028       | 145.1 | 10.1   | 152.6 | 13.1   | 143.5 | 9.1  |

Source IMF (2019), Oxford Economics (2020c) and author’s own calculations

Table 13.5  Multi-criteria debt sustainability analysis: the Greek case

Public debt ratio of 189.6% of GDP (2020) and a cost of 2.5%

| Nominal GDP growth (%Y) | 0.0 | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3.0                    | 1.7 | 0.6 | -0.5 | -1.5 | -2.6 | -3.6 | -4.6 | -5.6 | -6.5 |
| 2.5                    | 2.2 | 1.1 | 0.0 | -1.0 | -2.1 | -3.1 | -4.1 | -5.1 | -6.0 |
| 2.0                    | 2.7 | 1.6 | 0.5 | -0.5 | -1.6 | -2.6 | -3.6 | -4.6 | -5.5 |
| 1.5                    | 3.2 | 2.1 | 1.0 | 0.0 | -1.1 | -2.1 | -3.1 | -4.1 | -5.0 |
| 1.0                    | 3.7 | 2.6 | 1.5 | 0.5 | -0.6 | -1.6 | -2.6 | -3.6 | -4.5 |
| 0.5                    | 4.2 | 3.1 | 2.0 | 1.0 | -0.1 | -1.1 | -2.1 | -3.1 | -4.0 |
| 0.0                    | 4.7 | 3.6 | 2.5 | 1.5 | 0.4 | -0.6 | -1.6 | -2.6 | -3.5 |
| -0.5                   | 5.2 | 4.1 | 3.0 | 2.0 | 0.9 | -0.1 | -1.1 | -2.1 | -3.0 |
| -1.0                   | 5.7 | 4.6 | 3.5 | 2.5 | 1.4 | 0.4 | -0.6 | -1.6 | -2.5 |
| -1.5                   | 6.2 | 5.1 | 4.0 | 3.0 | 1.9 | 0.9 | -0.1 | -1.1 | -2.0 |
| -2.0                   | 6.7 | 5.6 | 4.5 | 3.5 | 2.4 | 1.4 | 0.4 | -0.6 | -1.5 |
| -2.5                   | 7.2 | 6.1 | 5.0 | 4.0 | 2.9 | 1.9 | 0.9 | -0.1 | -1.0 |
| -3.0                   | 7.7 | 6.6 | 5.5 | 4.5 | 3.4 | 2.4 | 1.4 | 0.4 | -0.5 |

Note  The calculations are based on the following formula: \( \Delta bt = (it - gt1 + gt)bt - 1 - pbt + ddat \) (eq. 1). Equation 1 (the typical debt accumulation equation) provides a simple accounting framework to decompose the change in the government gross debt-to-GDP ratio \( \Delta bt \) into its key drivers, consisting of: (i) the “snowball effect”, i.e. the impact of the difference between the average nominal interest rate charged on government debt \( it \) and the nominal GDP growth rate \( gt \) multiplied by the debt-to-GDP ratio in the previous period \( bt - 1 \); (ii) the primary budget balance (surplus) ratio \( pbt \); and (iii) the deficit-debt adjustment as a share of GDP \( ddat \) or the stock-flow adjustment, comprising factors that affect debt but are not included in the budget balance (such as acquisitions or sales of financial assets).

Source  Oxford Economics (2020c) and author’s own calculations
A debt sustainability check with 2020 data is based on the following assumptions:

- debt to GDP ratio of 189.6%,
- financing costs at 2.5%, and
- medium—to long-term nominal growth 4%.

Under these conditions, debt is sustainable (in both scenarios) as a primary balance from −3 to 3% of GDP results in a decrease in the debt to GDP ratio.

The lower the funding cost and the higher the nominal rate of growth, the higher the debt feasibility and therefore the sustainability of growth as the degree of freedom on economic policy increases.

A second sustainability criterion is usually used, that GFNs, in the medium term (until 2030), should not exceed, 15% of GDP (3rd Economic Adjustment Program [EAP] and the European Semester [ES]).

Figure 13.14 shows the evolution of GFN (as a percentage of GDP) in combination with the 15% threshold.

Based on the second sustainability criterion, for all scenarios, the debt is characterized as being sustainable as GFN are below the 15% threshold.

Fig. 13.14 Gross Financing Needs (%GDP) and the threshold of 15% (Source: Oxford Economics [2020c] and author’s own calculations)
However, it should be noted that since funds available to the economy are to the order of 36.6 billion euros, based on the relevant presentation by the Ministry of Finance in Parliament on April 24, 2020, the cash buffer combined with the primary surpluses, seem to be enough just to cover the GFNs that are being created at some stage in the year.

Thus, for the pre-crisis scenario, GFNs could be funded by the cash buffer and the primary results until 2024 as from 2020 to 2024 in total GFNs were expected to be in the range of 65.8 billion euros while the cash buffer combined with the primary surpluses to the order of 66.4 billion euros.

However, the effects of the Covid-19 pandemic have caused significant problems resulting in both the Normal and the Optimal Scenario, the cash buffer, combined with the fact that a primary deficit is expected for 2020 and 2021, is not enough to fund GFN after 2020.

Table 13.6 presents the course of GFN and the government primary surplus for these three scenarios. The pre-crisis scenario (based on the end of April 2020 estimates) and the Optimal Scenario. Figure 13.15 depicts this.

| Year | Pro-crisis GFN | Normal GFN | Optimal GFN |
|------|----------------|------------|-------------|
|      | Government Primary surplus | Government Primary surplus | Government Primary surplus |
| 2020 | 11.6            | 22.1       | 23.4        |
|      | 6.8             | −5.5       | −5.9        |
| 2021 | 11.4            | 18.3       | 18.6        |
|      | 6.2             | −1.4       | −0.2        |
| 2022 | 13.6            | 18.5       | 17.8        |
|      | 6.2             | 1.6        | 3.4         |
| 2023 | 14.2            | 19.7       | 17.5        |
|      | 5.7             | 2.2        | 4.7         |
| 2024 | 15.0            | 21.1       | 16.8        |
|      | 4.9             | 2.6        | 6.6         |
| 2025 | 18.6            | 25.8       | 19.1        |
|      | 4.5             | 2.8        | 8.4         |
| 2026 | 19.6            | 27.8       | 19.2        |
|      | 4.3             | 2.7        | 9.4         |
| 2027 | 17.0            | 25.6       | 16.0        |
|      | 4.3             | 2.6        | 10.0        |
| 2028 | 22.3            | 32.4       | 20.8        |
|      | 4.4             | 2.7        | 10.5        |

Note: It should be noted that the government primary surplus, as calculated here, is not identical to the Enchained Surveillance criterion which also contains certain data (e.g. privatizations, etc.)

Source: IMF (2019), Oxford Economics (2020c), and author’s own calculations.
Fig. 13.15 Primary Surplus and Gross Financing Needs (bn euros) (Note Gross Financing Needs [GFN] is derived from the Debt Sustainability Analysis presented in the IMF’s [2019] Article IV Consultation of November 2019 and has been adapted to three scenarios based on the development of debt in each of them. Source IMF [2019], Oxford Economics [2020c], and author’s own calculations)
13.9 The Political Economy in Greece After Covid-19

From the previous analysis it can be seen that Covid-19 brings about significant changes to the ideological and theoretical level of economic policy management, which can be summarized in the strengthened role of fiscal policy. This can be done through deficient fiscal management and higher debt to the point where their sharp increase is acceptable, raising issues of mass monetization of debt and risk sharing in terms of state unity, but also at a global level between economically strong and weak countries, bringing to the surface issues of forgiveness of debt.

In the monetary and financial sector, the risk of financial imbalance at corporate and national levels is emerging. Here the similarities in reports are more pronounced than in 2008, which requires a higher information load.

However, what has become quite clear is that the production model of the Greek economy involves a high level of systemic risk, mainly due to the high participation of one sector, tourism, in producing GDP and other labor-intensive sectors or industries that are particularly affected by rising uncertainty, such as real estate management. A consequent problem is the high participation of SMEs (which, based on international standards, are very small businesses) and the performance of the economy. On the positive side is the fact that the Greek economy has a small degree of integration in the international production system, has displayed a high-quality epidemiological policy and disciplined social behavior.

The severity of the Covid-19 crisis thus leads economic policy to unprecedented areas (e.g., high monetization of debt). These areas can very easily be occupied by political forces that often do not recognize the cost of their proposals. This is because we will be in policy-making areas where the cost of capital will not be as important as a criterion for selecting and allocating resources, as it will be zero or close to zero. Therefore, their distribution priorities can be changed and keep doing so in an almost anarchic way. Consequently, the concept of taking careful strides in shaping economic policy will be deemed as having less value than it does today, as it will be easy to make big steps in the short-term.

But because today the epidemiological and economic crisis is very serious and the answers to economic policy in Japan, the United States, and Europe include—and have already included, for example, monetization of debt and mutualization—the collection of huge sums of capital
as a defense, there are elements of “changing examples” in the economic and social system.

The “paradigm shift” leads to “whatever it takes for the European and the Greek Economy” and consequently to “going big for the recovery.”

In the current crisis, there are two levels and two fronts, each of which is confronted by politics. One field consists of expectations and the other reality. In each of them there are the health and economy fronts.

The Covid-19 crisis has affected the Greek economy and society in all six areas studied in this book as the “New Political Economy of Greece.” Specifically, it has affected foreign economies and political relations, sustainable development, sustainable governance, inclusivity, pro-growth behaviour of the population, and, of course, above all, as we have already commented, the dynamism of the Greek economy.

In external economic relations, it took steps in strengthening Greece’s objective relationship with the Eurozone, as it provided more or less effectively a safety net. At the same time, it weakened the economic strength of the Turkish economy (a geostrategic factor and an important Greek trading partner) but it remains unknown whether this will work for or against foreign relations with the country. It is certain, however, that it reduced the value of the south eastern Mediterranean’s energy reserves and consequently weakened a serious source of tension with Turkey.

In the area of sustainable development, it is obvious that it created increasing pressures on poverty after depriving workers of income and negatively affecting the health of the population in terms of this disease, because at the same time there is a reduction in other serious diseases, etc. The educational systems of countries were negatively affected, creating negative images in the memory of children at a younger age, mainly due to the change in their daily life and removal from the structured educational processes. At the same time, however, it has had a positive but violent effect on the introduction of distance learning methodologies at all levels.

Industry and infrastructure have undergone major changes, mainly due to the introduction of digital activities and remote work.

Two areas also seem to be significantly affected: climate change, which should have been significantly affected by declining economic activity, and justice procedures, which have been significantly affected, mainly leading to the forgiveness of minor offenses.
There have been more complex effects on the area of sustainable governance in Greece for two main reasons: the first is that the relatively successful management of the epidemiological crisis corresponded to highly organized management mechanisms, which led to the introduction of a series of digital administrative innovations (automatically issuing birth certificates, sending certificates to homes, etc.) that upgraded their level. The second is related to the fact that the political leadership has shown rapid reflexes in dealing with the crisis, increasing the country’s political and administrative resilience by improving governance sustainability.

Another serious crisis in ten years was a very serious problem in the issue of inclusivity. The ones mainly affected could only be the middle class again, a fact that boost income and wealth inequality indicators in the Greek economy. Remote work is not a situation that favors less skilled workers and Greece has a high employment rate in this category, further burdening income inequality.

However, pressures on income inequality are not only increased by recessionary pressures. On an international level, recessionary pressures will create issues of an unequal distribution of productive power and wealth, as some countries will be able to better support their production than others, mainly due to differences in fiscal space available. This will lead to explosions in social unrest and questions about the legitimacy of governments. It will also change the relevant position in international competition rankings, worsening, based on these criteria, the special position of employees in less favored economies, such as Greece. This will further aggravate the domestic situation.

At the same time, however, the redefining of public resources in favor of public health systems will stimulate the health situation of the population in the medium to long term. As conditions of poverty have been found to be the most vulnerable in pandemic conditions, tackling them seems to have higher support than in the past. Vulnerable parts of the population, such as immigrants, refugees, and minorities, can easily become epidemic targets and this can have consequences for the entire population.

People’s behaviors are of particular importance to the growth process. Concepts such as trust, uncertainty, and savings behavior are significantly affected in times of crisis. Of course, these behaviors have picked up significantly, mainly during financial crises (which last and have a long duration period for treatment) and much less after epidemiological crises, which
are theoretically short-term. At the same time, around the world, and especially in the Greek economy, there has been an extraordinary accumulation of instructions from the central government and team of experts in charge, which has been used as a sign of confidence in making rational decisions and implementing social discipline. Both characteristics were not at their highest point of acceptance until recently in the Greek economy. An effective and successful social experience respecting specific goals can have long-term consequences on pro-growth social behaviors.

Returning to the field of dynamic growth, we note that in the Greek economy, but also around the world, Covid-19 acquired a role of accelerator and enhancer of developments and trends that already existed in economies, while it did not acquire at least one role (while this book was written) of being a game changer in terms of prevailing examples in the economy.

In essence, if we ignore the acute epidemiological phase of the 2020 crisis internationally, the estimated medium-to long-term effects of Covid-19 are summed up by the fact that they accelerated the emergence of a long-awaited recession, enhancing the characteristics of the economy, that is low development rates, high debts and deficits, low inflation, reduced investment and low interest rates, but adding higher unemployment, something that existed in the Greek economy anyway.

An area where Covid-19 may turn into a game changer relates to economic policy being followed. It will obviously boost policy on debt monetization and risk sharing in Europe far more than what was the case prior to the Covid-19 crisis.

The two situations preceded the Covid-19 crisis. Both the European Financial Stability Fund (EFSF) and the European Commission had issued bonds to strengthen national governments during the 2008 crisis, and Draghi had developed the OMT program to support “whatever it takes,” but the use of these tools was limited (Blanchard & Pisani-Ferry, 2020). Covid-19 will change the intensity that the eurozone uses monetization and adopts risk sharing.

When the crisis was in its infancy, a question that arose was whether the outbreak posed a matter of superiority in the way some social systems handle large crises in comparison to others (China vs Western liberal democracies). There is the impression that the nature of China’s actions allows for a more effective responses to major crises, such as the Covid-19 pandemic. Obviously, this position has a high degree of truth in it, but it soon became clear that experiences from previous similar crises (SARS)
played a major role in China. Moreover, many Western liberal democracies (Germany, Greece, etc.) proved to react in a satisfactory fashion. At the same time, the Covid-19 crisis gave leaders, who were already leaning toward autocracy, a chance to boost powers (e.g., V. Orban in Hungary and J. Kaczynski in Poland) that were supposedly necessary in effectively tackling the pandemic. However, it seems that an excessive concentration of power and violation of democratic freedoms are not necessarily linked to effective treatment, although there is a need around the world, as in all major crises, to strengthen the structures of executive power.

But then concerns entered deeper political fields. The question, then, is whether liberalism of confidence in market efficiency has been dealt a decisive blow since everyone’s eyes turned to the land of the last resort, which was the state and the central banks.

In this sense, political forces in liberal democracies gather around the center will strengthen, since traditionally they have much better relations with the regulatory role of the state. In fact, it seemed that populist political regimes (such as Italy, the United States, and Great Britain) showed a characteristic inability to control the phenomenon. However, non-populist regimes, such as France and Switzerland, were also unable to respond in an effective manner.

It is certain that a pandemic is beyond the operation of markets that cannot manage it. Moreover, the theoretical infrastructures based on the ideology of market supremacy allow for the existence of the state’s regulatory factor in the presence of Hobbes’ Leviathan.

Consequently, the question of “how much and where the state” is not posed anew by Covid-19. It existed before and will always exist. What appears to be a new dimension, however, is an emphasis on supporting health systems. Let’s not forget that deaths from Covid-19 are not caused by the virus itself, but by the combination of its presence, along with the absence of medical facilities.

So, what is it that shapes the reactions of political systems to the crisis? It is too early to have similar answers, while research in political science will help us in the future.

Now, however, it is certain that the timely mobility of experts and their good cooperation with policy are key to a satisfactory response. Experts include epidemiologists and doctors of all specialties, economists, communications experts, etc. It is also a given that from the moment the crisis hits, there is an initial focus on leadership and then later policy concerning crisis management develop.
However, the effects of the crisis trigger changes in social behavior, which are important and noteworthy. We knew that this occurs from other crises of the past (1929, 2008, etc.). Children living in these crisis conditions adopt more permanent attitudes and behaviors, especially after the closure of educational systems.

At the same time, it is certain that higher uncertainty levels to the point where “we do not know what we don’t know” has a profound effect on all aspects of economic activity, mainly on consumption, savings, and investment.

The question, however, is whether and to what extent damages is done or whether there is a mild boost in confidence to the institutional framework in which the economy and society operate.

If a society successfully copes with the crisis then it will come out of it with a much better chance of implementing policies with social costs for the broader community, or to groups of it. This brings it closer to the possibility of implementing structural policies, a possibility that newer societies normally have. If the need to tackle the pandemic leads to very large horizontal programs aimed at improving overall demand, then again, conditions to implement reform programs are created, as it is known that under austerity conditions, they are less likely to succeed.

At the same time, communities that experience the fortunate management of a similar crisis with the help of the scientific community seem to increase their confidence in research and expertise of experts.

The opposite is true in societies that experience the failed management of the crisis. They become much more vulnerable to the spread of random ill-intentioned news, creating representations of injustice, racial and nationalist segregation, illusions of national isolation, etc. In practice, this means that they support political forces that ignore the cost that burden future generations, something which is politically easy.

A crisis of this dimension may, however, affect much deeper attitudes, as is the case of Inglehart’s “insecurity hypothesis” and the “economic have not hypothesis” (see Chapter 4, Sect. 4.6).

We know very well that in the 2008 crisis, where societies were particularly affected, the feeling of insecurity increased and led to social behaviors being driven by pressure to improve people’s finances, leaving behind post materialistic concerns.

If the current economic crisis maintains its character as being deep-fast-short, it may not reach the point of activating these behavioral issues, as opposed to the 2008 financial crisis which was deep-slow coming
and long lasting. But there is now skepticism as to whether the Covid-19 crisis will be short-lived. It is very likely that the 2020 health crisis will create broader turbulence, creating Covid-moment situations (as in Minsky Moments) that are accompanied by financial imbalances.

In the end it is possible that classic “insecurity hypothesis” and “not-have hypothesis” behaviors are activated, if the economic crisis lasts much longer.

In addition, if we live in a world where money has a zero cost (zero interest rates), then social demands are likely to lose their rationality and take on an anarchic formulation. This, however, creates an environment that is much more difficult to control, where policy implementation becomes more difficult. At the same time, however, the forces created by these behaviors remove heavily anchored recipes, which are likely to act as inhibitory variants of development. Political changes, then, can have both positive and negative dimensions.

In concluding, the previous formulation leads to the formation of a perspective with characteristics of the Great Potential Change for Greek society that include the following elements:

- Short-term intervention that is in progress to address the effects of the Covid-19 crisis.
- Changes to the production model that will increase the “risk dispersion of the production standard,” reducing the possibility of systemic crises causing steep recessions or, if this is not possible, leading to rapid recovery.
- Broad fiscal intervention that will improve the potential for recovery and will also allow for the better implementation of a strong economic structural package. It should be noted that this point has a pan-European application.
- Political stability which is necessary for the implementation of a long-term development plan and enhanced public administrative supervision to guide a reform plan.
- Maintain social cohesion and improve the possibility of increased participation in development, especially among the middle class.
- Implementation of a broad reforms program that the Greek economy has always needed, emphasizing support to health systems and the existence of distance learning processes.
Utilization of positive changes to the cultural model of political behavior. Changes that would take decades to occur, creating the conditions for them to be strengthened in a few months.

In concluding, the coexistence in Greece of social discipline and appetite for security and progress of a reformist logic and softening of fiscal and monetary policy, create a positive combination that is unique for the last 200 years of modern Greek state’s existence. This opens a rare window of opportunity for the Greek economy.

NOTES

1. It is estimated that the final numbers of the recession will be higher than these figures, but the direction of the analysis will be approximately the same.
2. That is why May 15th was chosen as a landmark date for Greece.
3. The measures are not converted into equal financial flows for different reasons.
4. The decisions are taken unanimously.
5. This agreement between the two parties must be approved by all 27 EU member states.
6. It should be noted that this decision is classified with epidemiological decisions, although it certainly has the most serious economic impact.
7. This means that in Greece the economy will open in the first ten days of May. Here it seems that the accuracy of the estimates depends much more on the epidemiological issue rather than the accuracy of the model used.
8. Note that this assessment is very strict.
9. This is confirmed by the relevant conclusion from Eurobank Research titled The Greek Economy in 2020. Impact from the Covid-19 crisis and Outlook.
10. The 15.7 billion euros of these are the last disbursement from the stability mechanism (ESM) toward the economy and from the surpluses of that period (of these 9 billion euros come from installments of the European support mechanism, 3 billion euros from debt issues, and 3.7 billion euros from surpluses). The 10.7 billion euros are available to government agencies in commercial banks and the Bank of Greece (BoG). The 10.2 billion euros relate to the central government’s cash reserves.
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