e-cadernos CES

39 | 2023
COVID-19 Pandemic and Health Inequalities in Southern European Countries

COVID-19, Policies, Socio-Economic and Health Effects in Southern European Countries

COVID-19, políticas, efeitos socioeconómicos e de saúde nos países da Europa do Sul

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Electronic version
URL: https://journals.openedition.org/eces/8101
DOI: 10.4000/eces.8101
ISSN: 1647-0737

Publisher
Centro de Estudos Sociais da Universidade de Coimbra

Electronic reference
Aida Isabel Tavares and Pedro Lopes Ferreira, "COVID-19, Policies, Socio-Economic and Health Effects in Southern European Countries", *e-cadernos CES* [Online], 39 | 2023, Online since 24 October 2023, connection on 27 October 2023. URL: http://journals.openedition.org/eces/8101 ; DOI: https://doi.org/10.4000/eces.8101

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COVID-19, POLICIES, SOCIO-ECONOMIC AND HEALTH EFFECTS IN SOUTHERN EUROPEAN COUNTRIES

This essay aims to make a brief comparative analysis of the Southern European countries of Spain, Greece, Italy and Portugal with regard to the socio-economic and health effects caused by the SARS-CoV-2 pandemic and by the control and mitigation policies implemented by their respective governments. It presents a brief contextualization of the structural characteristics of these socio-economic effects and propagation routes of these effects of COVID-19. It also describes some governmental steps toward mitigation along with control measures during and after the pandemic. The first-order effects can be reflected in an excess mortality rate; for the second-order effects the focus is on young people and non-COVID people; and, finally, third-order effects refer to macroeconomic indicators, such as household consumption and public debt.

Keywords: control policies, COVID-19 effects, indicators, mitigation policies, Southern Europe.

COVID-19, POLÍTICAS, EFEITOS SOCIOECONÓMICOS E DE SAÚDE NOS PAÍSES DA EUROPA DO SUL

Este ensaio visa fazer uma análise breve e comparativa entre os países do Sul da Europa, Espanha, Grécia, Itália e Portugal, relativa aos efeitos socioeconómicos e de saúde causados pela pandemia do SARS-CoV-2 e pelas políticas de controlo e mitigação implementadas pelos respetivos governos. Apresenta-se uma breve contextualização das características estruturais destes países assim como dos efeitos socioeconómicos e vias de propagação desses efeitos da COVID-19. Descreve-se também algumas medidas governamentais de mitigação e controlo dos efeitos, durante e após a pandemia. Os efeitos imediatos podem ser refletidos numa taxa de excesso de mortalidade; para os efeitos de segunda ordem o foco é dirigido aos jovens e às pessoas não-COVID; e, por fim, os efeitos de terceira ordem referem-se a indicadores macroeconómicos, como o consumo das famílias e a dívida pública.

Palavras-chave: efeitos da COVID-19, Europa do Sul; indicadores, políticas de controlo, políticas de mitigação.

INTRODUCTION

The SARS-CoV-2 virus and its rapid global spread in 2020 transformed our lives, caused immense human suffering and challenged our societal foundations of well-being. The effects brought on by the pandemic produced immediate repercussions in terms of population health, employment and income, but the domino effect went on to weaken relationships and social capital as well as trust in others and institutions. In the medium to long term, the aftermath of the pandemic continued and will continue to be felt, not only with respect to "long-COVID" but also the social risks of the most disadvantaged groups and the widening gap of existing socio-economic divisions.

Socio-economic inequities in health determinants justify more fragile pre-existing health states that, in the face of COVID-19, have clearly revealed their vulnerability to infection, its severity and mortality (Bambra, 2016). Due to long and continuous exposure to the SARS-CoV-2 virus, even people without pre-existing disease conditions experienced a weakening of their immune system, increasing their susceptibility to COVID-19 disease, which was more intense in the most disadvantaged communities. So-called "essential workers" (e.g. cleaning services, distribution, food sector), many of them paid low wages, continued their duties and tasks in their usual workplace and environment, which in turn contributed to their increased exposure to the virus. Housing and neighborhood inequalities also contributed to the inequities generated by the COVID-19 pandemic. In the most degraded, densely populated neighborhoods, those with few green spaces, very high residential occupancy rates and low living conditions for example, the rate of transmission of the disease was higher, contributing to the inequities of the socio-economic effects of this pandemic crisis.

In sum, the socio-economic effects of the COVID-19 pandemic are not experienced equally across society, and evidence tends to show that the effects are disproportionately felt more by people with lower levels of qualification, lower incomes, younger people, those belonging to ethnic minorities, and women (Bambra *et al.*, 2020; Bambra *et al.*, 2021).

The general objective of this essay is to make a comparative analysis between Southern European countries – Greece, Italy, Portugal, and Spain – regarding the socio-economic and health effects caused by the COVID-19 pandemic and the associated control and mitigation policies.

This article is laid out into four key sections. In the first, we present the structural characteristics of the Southern European countries that are the focus of this study (Greece, Italy, Portugal, and Spain). This is followed by a descriptive section as to how the effects of COVID-19 have spread within these societies. The next section identifies the measures to control and mitigate the effects of COVID-19, both before, during, after

and in the recovery phase. Finally, a comparative analysis of some relevant indicators is made amongst the four Southern European countries.

1. Some Structural Features of Southern European Countries

In the 1990s and at the beginning of the 21st century, it could be argued from a conceptual and theoretical point of view that Southern European countries tended to present identical welfare state characteristics (Castles and Ferrera, 1996; Ferrera, 1996), such as lower average social expenditure compared to the EU average, lower efficiency in reducing poverty levels, and unequal generosity in covering social risk (Ferreira, 2008). Some authors consider that there is a specific welfare state regime for Greece, Italy, Portugal, and Spain, the so-called Mediterranean Regime (see, for example, Ferrera, 1996); other authors consider the welfare state regime of these four Southern European countries as an incipient and rudimentary regime of the Continental Regime proposed by Esping-Anderson (1999) (e.g. Silva, 2000, 2002).

The previous notwithstanding, the welfare state differences between these four countries were accentuated by the 2008 financial crisis, which eventually turned into a public debt crisis (Petmesidou and Guillén, 2014). Different welfare state trends were emerging, resulting from different political balances, church-state relations in dealing with family matters, and demographic-social changes such as those related to gender and age. The four Southern European countries at the time the financial crisis exploded were in the process of changing and adapting their welfare systems, and each was trying to follow its own logic. But the EU budget rules acted as a guiding element in that process, with unfavorable impacts on less developed social policy areas (Saraceno, 2017).

The financial intervention of the European Union, the European Central Bank and the International Monetary Fund via bailout funds and/or loans to Cyprus, Greece, Ireland, Portugal and Spain (Gourinchas *et al.*, 2020), further accentuated the gap created around the welfare state in some of these countries. Greece, Portugal and Spain suffered as they were subjected to major disinvestment in health at the time (Serapioni and Hespanha, 2019). In contrast to other European countries, where the share of GDP devoted to health increased from 2008 onwards in order to cope with the expected social consequences of the financial and economic crisis, in these Southern European countries there was a disinvestment in health (Table 1).

TABLE 1 – Public health expenditure as percentage of GDP

	2009	2010	2011	2012	2013	2014
Greece	6.43	6.61	6.04	5.90	5.24	4.54
Portugal	6.47	6.68	6.28	5.92	5.86	5.77
Spain	6.84	6.79	6.74	6.60	6.44	6.39

Source: Eurostat Database. Retrieved from https://ec.europa.eu/eurostat/data/database, online data code HLTH_SHA11_HF, last accessed on 05.01.2023.

Thus, when the pandemic hit these countries, the poor level of preparedness of their health systems was felt, especially with regard to equipment and human resources in health facilities.

Inequities in health and health determinants are experienced differently in different countries also due to differences in social policy. Thus, in welfare states that are more generous and which target vulnerable groups, the negative effects of the public health and economic crisis can be expected to be mitigated. The services and supports provided under social policy, including in social security and health systems, are considered a key moderator of the social determinants of health (Beckfield *et al.*, 2015; Eikemo and Bambra, 2008).

However, the health systems of the Southern European countries are distinct, and their characteristics can be analyzed on the comparison platform of the European Observatory on Health Systems and Policies[1]. To put a label on the health systems of these countries, it can be said that Italy, Portugal, and Spain have systems with a strong Beveridgian slant, while Greece has a system with hybrid characteristics and closer to the Bismarkian system. Greece and Portugal have more centralized health systems, while in Italy and Spain they are more decentralized due to the autonomy of the regions, although the governance characteristics of this decentralization are different (Angelici *et al.*, 2023).

The organizational and governance structure and configuration of the health systems before the pandemic naturally had an influence on the health outcomes that were observed during and after the pandemic. These four health systems have been under financial pressure since the 1990s and especially with the 2008 crisis that resulted in severe restrictions on health investment. The public health crisis that emerged from COVID-19 showed that health systems with fewer restrictions, more intensive care beds and more medical staff were better able to respond to emerging needs (Augustin *et al.*, 2020; Bambra *et al.*, 2021; Bonalumi *et al.*, 2020; Sylvers, 2021).

[1] Available at https://eurohealthobservatory.who.int/monitors/health-systems-monitor/compare (last accessed on 05.01.2023).

2. THE PATHWAYS FOR THE SPREAD OF THE EFFECTS OF COVID-19

In this section we will briefly describe the pathways of propagation of the effects of COVID-19 using a WHO model (WHO, 2020). In this way, we can see that the socio-economic effects of the COVID-19 pandemic are felt fundamentally through three propagation pathways that generate inequities or accentuate existing ones (*ibidem*), as represented in Figure 1.

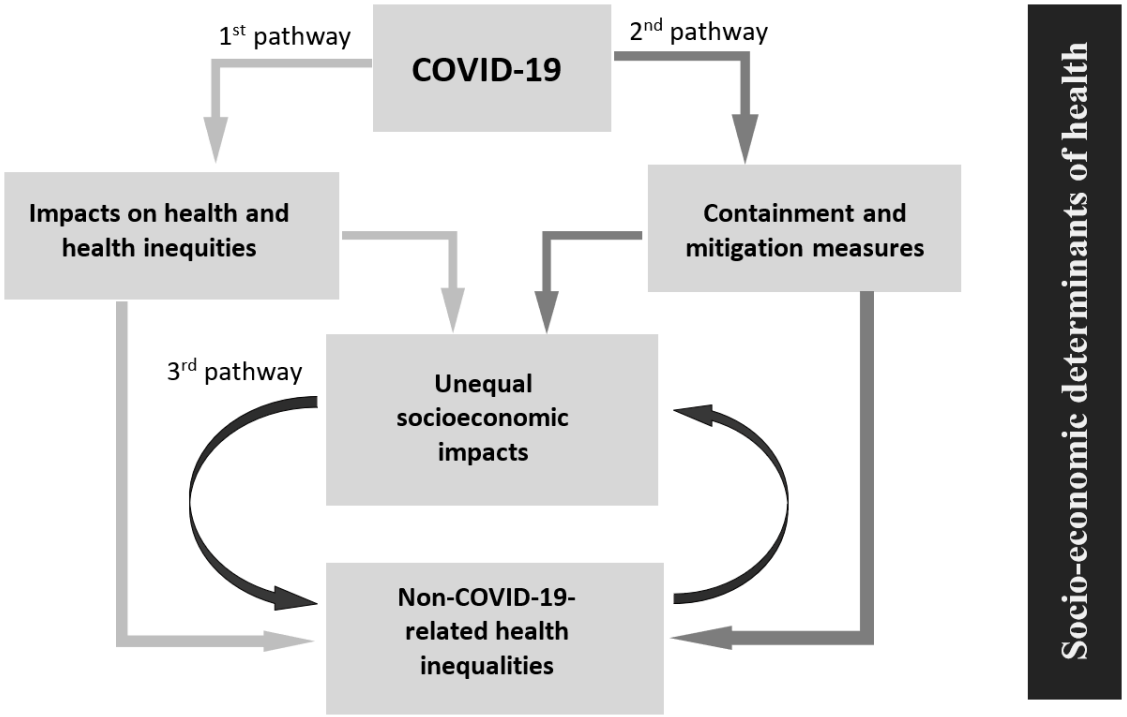

FIGURE 1 – Socio-economic and health effects of COVID-19

Source: Authors' drawing based on WHO (2020).

The first pathway of propagation is after exposure to COVID-19 infection. From the outset, the risk factors for this infection include several chronic health conditions, as well as the morbidity and mortality of the disease. As a result, the likelihood of experiencing major health problems was skewed towards those with these risk factors from the outset.

Socio-economic effects are felt at two levels, depending on their direct relationship with COVID-19. On the one hand, there are the effects that result from the contagion and contraction of the disease, such as symptoms, the existence of severe disease, disability, other complications, or even death, and which will have short- and long-term effects on individuals and their families. The long-term burden of disease can result in a negative spiral of illness, unemployment and lack of income. On the other hand, there are socio-economic effects unrelated to COVID-19 that result from the abnormal functioning of society, such as health care services not being able to respond to the demand they face.

Thus, in the long term, the increase in unsatisfied needs could lead to a deterioration in the health of individuals or populations.

The second pathway is the one that occurs as a result of the implementation of measures to control and mitigate the pandemic (social distancing, confinement, teleworking, closure of schools and other services, etc.) that affect population health and result in socioeconomic inequities at two levels, being, on the one hand, the direct socio-economic effect and the indirect socio-economic effect emerging from health effects unrelated to COVID-19 on the other hand. Thus, the implementation of pandemic control and mitigation measures has a strong potential to result in unemployment or significant losses of income, which directly affects health determinants in a detrimental way.

In addition, the measures implemented and the state of calamity in which societies have operated have impacted not only an individual's physical health but also their mental health, for example by leading to deterioration (increase in addictive and violent behaviors, anxiety, or panic attacks, among other emotional imbalances) or choosing to neglect consulting health care providers (causing delays in diagnosing serious illnesses). These effects are differentiated in society according to the socio-economic gradient.

Two key transmitters of the effects of pandemic control and mitigation policies can thus be identified. The first concerns the definition of who are the essential workers, and the second the closure of schools. Either of these elements is a transmitter and multiplier of existing socio-economic inequities (Bambra *et al*., 2021).

The third propagation pathway emerges from the bidirectional relationship between the direct socio-economic effects of COVID-19 and the non-COVID health-related effects, which, being unequal, reinforce existing inequity. Given that the burden of disease is directly related to people's socioeconomic gradient, the effects of COVID-19 naturally also follow this gradient. Disadvantaged and vulnerable people are at higher risk of severe illness and morbidity, thus accumulating the socio-economic disadvantages that accentuate existing inequities.

The transmission pathways of the socio-economic effects of COVID-19 reveal the direct and indirect way in which negative effects tend to accumulate in the most disadvantaged socio-economic gradients.

In fact, in a more refined analysis, three different orders of effects can be identified (Fisayo and Tsukagoshi, 2021), which are:

- first-order effects: effects that result directly from the contagion of the disease: physical symptoms, mortality and long-term effects;
- second-order effects: short- and medium-term indirect effects that result from the implementation of pandemic control and mitigation policies; and

- third-order effects: long-term indirect effects on socio-economic determinants of health, such as education and employment (Dalhgreen and Whitehead, 1991); effects on the performance of health systems, social policies and other social and economic sectors.

These effects can be felt and observed at the level of the individual (micro level) and at the more aggregated level, either meso or macro. The measurement of socio-economic effects, described by different possible indicators, can be framed in this conceptual perspective of order of effects (Table 2). The diversity of indicators is therefore extensive and can be used depending on the specific research objectives and available methods of information collection.

TABLE 2 – Matrix of indicators of socio-economic and health effects of COVID-19

First order effects	Second order effects	Third order effects
Contagion rates; hospitalizations; mortality rates; COVID prevalence rates; virus exposure; long-term COVID; comorbidity, etc.	Unmet needs; postponement of care; effects on mental health and healthy behaviors; complaints of domestic violence, etc.	Life course perspective; variation in unemployment; quality of schooling; health system (sustainability and resilience); economic performance of other sectors of the economy, etc.

Source: Authors' elaboration based on Fisayo and Tsukagoshi (2021).

3. POLICIES TO CONTROL AND MITIGATE THE EFFECTS OF COVID-19

In view of the various effects, governments immediately put into place a set of policy measures aimed at controlling and mitigating those effects. These policies are described in the comparative platform of the European Observatory on Health Systems and Policies[2] for each of the countries and are also addressed and described throughout the various contributions to this issue of this journal. Here we want to briefly refer to all these measures carried out in the four Southern European countries analyzed at two points in time: (i) during the pandemic, and (ii) after and in the recovery phase.

Policy decisions before and during the pandemic influenced and shaped the socio-economic determinants of health and, consequently, the medium- and long-term effects on health inequities and their determinants. The panoply of measures available to governments is something that is established from the outset; what varies is the timing, value and intensity of these measures, which, for their part, reflect the political and social trajectories existing in each country (Bambra *et al.*, 2021). The collection of available

[2] Available at https://eurohealthobservatory.who.int/monitors/hsrm/ (last accessed on 05.01.2023).

measures can basically be categorized into four groups: (i) cost-of-living assistance and support; (ii) business support and subsidies; (iii) support for essential workers; and (iv) health sector and system interventions.

3.1. During the Pandemic

In the first wave of the pandemic and then in the following waves, governments initiated a set of containment and control measures to address the expansion of the disease (seeking to reduce the number of effective reproductions of the virus to below 1.0) and to mitigate its effects on the health of the population. The Oxford Coronavirus Government Response Tracker project has created an indicator called the "COVID-19 Containment and Health Response Index" which measures the variation in the response of governments to the COVID-19 crisis (not the effectiveness or adequacy of the measures taken). This indicator is based on a ranking of various measures such as school, public transport and workplace closures, cancellation of public events, restrictions on public gatherings, mandatory stay-at-home orders, public information campaigns, internal movement restrictions, international travel controls, testing policy, tracing strategies, mask mandates, and vaccine policy. This indicator ranges from 0 to 100, with 0 representing the absence of stringent measures and 100 the most rigorous government response.

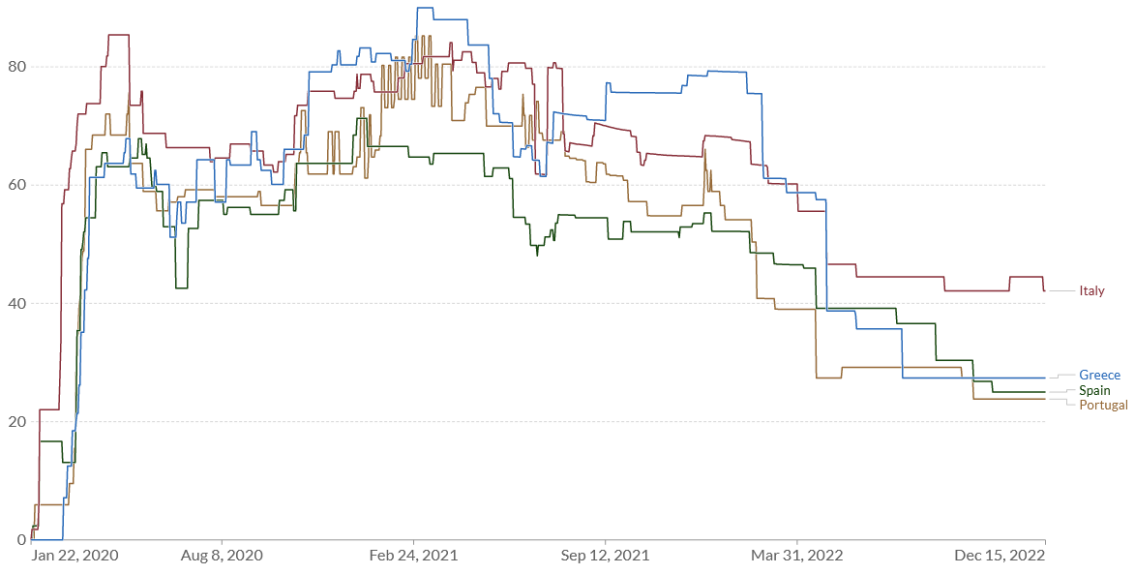

Figure 2 – The indicator "COVID-19 Containment and Health Response" in the period 2020-2022

Source: OurWorldinData (cf. https://ourworldindata.org/grapher/covid-containment-and-health-index?tab=chart&yScale=log&country=GRC~ITA~ESP~PRT).

Note: For a deeper analysis, see Hale *et al.* (2021).

In Figure 2, it is visible that, overall and from mid-2020 to the first quarter of 2022, Greece tends to adopt more stringent measures, while Spain adopted a less stringent

government response strategy. From the second quarter of 2022, Southern European governments started to stabilize their COVID-19 control and mitigation measures, with Italy maintaining higher levels of control than the other countries.

With regard to socio-economic policies, it was also in the first wave that governments decided to implement a set of measures to respond to the negative effects on people in the most fragile situation. Southern European countries tended to direct their efforts in the same direction: support and subsidies to wages and to workers most affected by job destruction and most susceptible to unemployment, expansion of unemployment support, temporary additional benefits for self-employed workers, and support for families with children, among other measures (Moreira *et al.*, 2021). However, it is essential to note that these social measures were and are limited by the financial and public debt situation of these countries, which became unsustainable in the aftermath of the 2008 financial crisis.

The pandemic containment measures carried out by governments in the years 2020 and 2021 had a strong socio-economic impact on the economies of Southern Europe, with an expected economic divergence (Odendahl and Springford, 2020), which is also inherent to the mitigation policies that accompanied the containment policies. In these countries, economic activity and employment are mainly focused on industry, distribution and hospitality, and less on service areas or areas more prone to the possibility of teleworking, making the costs of lockdowns higher. On the other hand, these are the countries with the highest public debts and the lowest economic growth potential. For this reason, (i) support to businesses and their employees is more rationed, (ii) countries risk increasing debt service payments, resorting to inflation to contain the stock of debt relative to GDP or restructuring public debt; and (iii) these countries are subject to European fiscal rules, which although they may be temporarily relaxed, will eventually have to be applied at some point in time.[3] Within the possible space for action, the four countries have initiated measures to assist and support the cost of living, to support businesses, to support workers, and in the health sector and system. As an example, some generic measures undertaken are listed in Table 3 and can be found in the European Observatory on Health Systems and Policies.

[3] Due to the pandemic and the urgency of expansionary macroeconomic policies, the escape clause of the Stability and Growth Pact on European fiscal rules was triggered, in particular the criteria of not exceeding 60% public debt as a percentage of GDP and 3% budget deficit as a percentage of GDP. The application of these fiscal rules is expected to return in 2024. For Portugal, the set of measures with budgetary impact can be found in the Public Finance Council (Conselho das Finanças Públicas in the original language) report 08/2022 (see https://www.cfp.pt/uploads/publicacoes_ficheiros/cfp-rel-8-2022.pdf, last accessed on 16.10.2023).

TABLE 3 – Generic examples of measures to mitigate the effects of COVID-19

	Greece	Italy	Portugal	Spain
Support for cost of living	Support for people with disabilities, payment of lump-sum allowances to self-employed persons	Direct payment of unemployment benefits by banks guaranteed by the State and the National Pension Fund	Moratorium on the payment of housing loan instalments; suspension of the end of rental contracts	Support for housing credit situations; protection of tenants; impossibility of gas, electricity and water cuts; direct support to vulnerable population
Support for enterprises	Suspension of payment of social security contributions	Suspension of social security contribution payments; access to immediate business support funds	Suspension of payment of claims and extension of credit agreements	Possibility to adjust activity to market conditions by temporarily suspending contracts and reducing the number of working days
Support for employees	Possibility of part-time work two weeks a month with guaranteed job retention	Additional cash contribution for key workers	Support for workers on lay-off or free-lancers	Support and allowances for suspended, hourly reduced, self-employed, temporary workers

Source: Authors' elaboration based on information available in the European Observatory on Health Systems and Policies (https://eurohealthobservatory.who.int/monitors/hsrm/, last accessed on 05.01.2023).

3.2. AFTER THE PANDEMIC AND RECOVERY PHASE

During this period, two lines of action stand out at the European level: one to support recovery from the effects of the pandemic and the other to support health systems. Under the first line of action is the European Recovery Plan (PRR – Recovery and Resilience Plan), which is part of the Next Generation EU Investment Program, which aims to make the EU more resilient and capable of responding to future challenges, focusing on pillars of development and digital and green transition.[4] The key measures aimed at strengthening economic and social resilience for Southern European countries are listed, with their respective allocations, in Table 4, and a common line of concern can be identified regarding labor and employment policies, as well as combating social inequality (Casquilho-Martins and Belchior-Rocha, 2022).

[4] See the "Recovery Plan for Europe", at https://commission.europa.eu/strategy-and-policy/recovery-plan-europe_en (accessed on 04.03.2023).

TABLE 4 – Share of PRR Funds (grants and loans) in Southern European countries (%)

	Greece	Italy	Portugal	Spain
Digital transformation	0.18	0.18	0.17	0.18
Digital transformation and green transition	0.01	0.02	0.00	0.03
Digital transformation and social, economic and institutional development	0.03	0.04	0.00	0.23
Green transition	**0.31**	**0.43**	**0.38**	**0.41**
Green transition and social, economic and institutional development	0.02	0.03	0.00	0.00
Social, economic and institutional development	**0.41**	0.29	**0.45**	0.15
No category	0.03	0.02	0.00	0.00
Total value for money and loan (€ billions)	18.19	191.50	16.64	69.53

Source: Authors' elaboration based on Bruegel Database (see Darvas *et al*., 2023).

Under the second line of action is the new and reinforced EU4Health program which is designed to improve the resilience of health systems and innovation in the health sector. In particular, the primary objectives of this program are (i) the protection of the European citizen from cross-border health threats and improved crisis management capacity, (ii) the production of medicines and medical equipment, support for innovation along with their respective affordability and availability, and (iii) the strengthening of health systems and their human resources, including health promotion, disease prevention and improved access to healthcare.

From the national recovery and resilience plans, it can be observed that all four countries focus their attention on the green transition; Portugal and Greece also direct a significant part of the funds to social, economic and institutional development, which could be explained by the fact that these countries saw their public investment limited by the Troika in 2011, which slowed down and mismatched a significant part of the public infrastructure.

4. COMPARATIVE ANALYSIS BETWEEN SOUTHERN EUROPEAN COUNTRIES

COVID-19 has had a significant impact on the life expectancy of Europeans. In October 2022, more than 1.1 million deaths were attributed to the pandemic, i.e. around 17.5% of all deaths worldwide. In most European countries, this represents the highest death toll after the Second World War (OECD and European Union, 2022). But the impacts of the pandemic have extended to many dimensions and the effects have been felt at various levels, which we have previously categorized in different orders. The European

Statistical Recovery Dashboard is available online[5] for several indicators that measure and capture those effects. It is not our ambition to explore all observable and measurable effects, but we will present some effects that seem most relevant to us.

4.1. First Order Effects

First-order effects are those that emerge fundamentally from contact with the disease, one of the most significant indicators being excess mortality[6]. Figure 3 shows the evolution of excess mortality in the four countries analyzed, since January 2020. This value has varied over time and now seems to converge between the four countries. However, in 2022, it continues to show positive values, that is, there is excess mortality resulting from the pandemic.

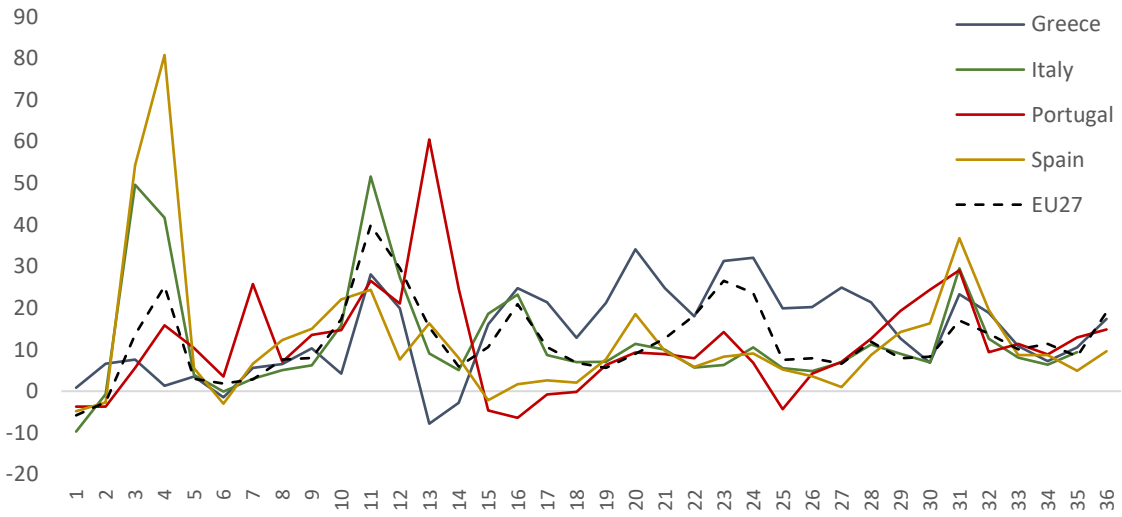

Figure 3 – Excess mortality, in percent, monthly data (2020-2022)

Source: Eurostat Database. Retrieved from https://ec.europa.eu/eurostat/data/database, online data code DEMO_MEXRT, last accessed on 05.01.2023.

4.2. Second Order Effects

Second-order effects are short- and medium-term indirect effects that have resulted from the implementation of pandemic control and mitigation policies. At this level of effects many analyses can be made. We will focus our attention on two groups of individuals: (i) the youngest and (ii) the non-COVID, i.e. those who have not been infected with the SARS-CoV-2 virus. We consider that younger people will carry a burden associated with the effects of the pandemic for the rest of their lives emerging from an intergenerational concern; in contrast, non-COVID people have directly felt the absence of health systems,

[5] Available at https://ec.europa.eu/eurostat/cache/recovery-dashboard/ (last accessed on 05.01.2023).
[6] Excess mortality refers to the percentage of additional deaths relative to the average number of monthly deaths over the period 2016-2019.

or a lessening of their resilience in responding to their needs, creating a negative burden on their own health that will also last over time.

4.2.1. The Effects on Younger People

The pandemic has had a substantial impact on the health of young people, both in physical and mental health (OECD and European Union, 2022). The closure of schools, the breakdown of routines and the suspension of sports programs were some of the determinants of this impact. While several European countries have taken measures to protect against this impact, much remains to be done to ensure that the after-effects of the pandemic do not become permanent and influence a generation's aspirations, opportunities and outcomes (*ibidem*).

In all European countries, the share of young people reporting symptoms of depression more than doubled during the pandemic, reaching figures even double those among older people.[7] For example, the percentages of young people with symptoms of depression in 2020-2021 in Spain (Jacques-Aviñó *et al*., 2020) and Italy (Delmastro and Zamariola, 2020) reached 35.3% and 24.2%, respectively, while similar percentages for the population of all adults in these countries were 22.5% and 14.4%, respectively. In Portugal, the work coordinated by Almeida *et al*. (2020) shows that 27% of respondents show moderate to severe symptoms of anxiety, 26.4% of depression and 26% of post-traumatic stress disorder, and these symptoms are more prevalent in women, young adults, the unemployed and low-income individuals. Regarding Greece, we did not find studies on mental health, but there is no evidence that the trend does not follow the other countries. It should also be noted that these percentage figures have been increasing and decreasing throughout the various waves of the pandemic.

As also mentioned above, the links between mental health and levels of income and inequity are evident. Indeed, young people in precarious financial conditions, young women and young people at risk of social exclusion have a higher risk of acquiring mental health problems (OECD and European Union, 2022). Results from the "Living, working and COVID-19" survey by the European Foundation for the Improvement of Living and Working Conditions (Eurofound, 2021) revealed that individuals aged 18-29 living in households with financial difficulties were at higher risk of developing depression during the pandemic than those living in households without reported financial difficulties. Figure 4 represents the percentage of these young people at risk of depression in the four Southern European countries compared to the respective figures for the European

[7] Eurostat (2021), "Current Depressive Symptoms by Sex, Age and Educational Attainment Level". Accessed on 03.03.2023, at https://data.europa.eu/data/datasets/9jyxefm0os38ogrsf7lcla?locale=en.

Union. Data were only obtained from 21 EU countries as the samples from Cyprus, Denmark, Luxembourg, Malta, the Netherlands, and Sweden were too small.

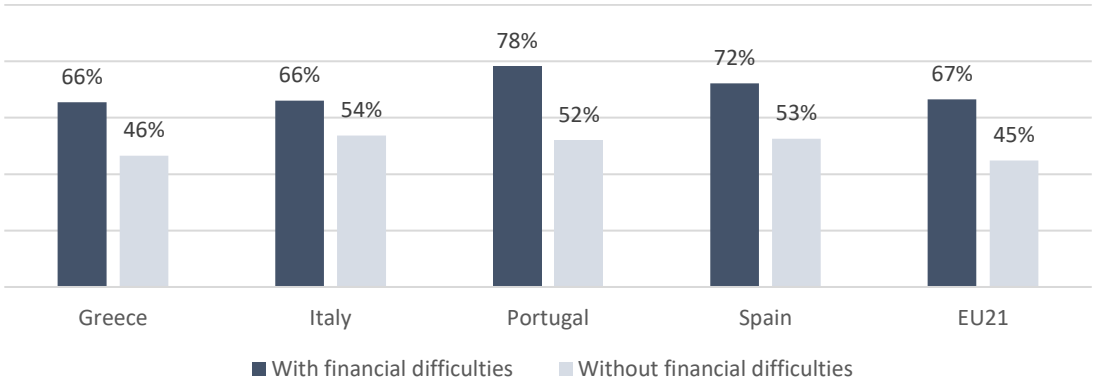

FIGURE 4 – Percentage of 18-29-year-old at risk of depression, 2020-2021

Source: Authors' elaboration based on Eurofound (2021).

On the other hand, during the pandemic, many children and young people engaged in physical activity for much less time, even though before the pandemic this was already unsatisfactory. Concurrently, their eating habits worsened, contributing to problems of becoming overweight or obese. Young people were, however, more physically active than their female peers.

In the context of the four Southern European countries analyzed in this essay, some evidence shows that in Italy, Spain and Portugal the percentage of children and young people aged 3 to 18 who did not fulfill the WHO recommendations during the first lockdown of the pandemic (March/April 2020), i.e. at least one hour of moderate to vigorous physical activity daily, increased from 53% to 85% in Italy, from 34% to 86% in Spain and from 46% to 86% in Portugal (Francisco *et al.*, 2020).

In contrast, during this first lockdown, these children and adolescents spent much more time in front of a screen than they did before the pandemic. Specifically, according to the same study, if we analyze the daily percentage of individuals in front of a screen for two or more hours, the values before the pandemic and during the first confinement were, respectively, from 10% to 45% in Italy, from 11% to 53% in Portugal and from 7% to 53% in Spain.

But other relevant indicators deserve attention. Childhood vaccination called DTP3 or triple bacterial vaccination against diphtheria, tetanus and pertussis, which is generally mandatory or recommended in Europe, in the vast majority of European countries maintained or increased in 2020 vaccination levels compared to the previous year. Figure 5 shows the vaccination rates in 2019 and 2020 in the four Southern European

countries, still compared to the EU average values. Data from Cyprus are not included in the EU average.

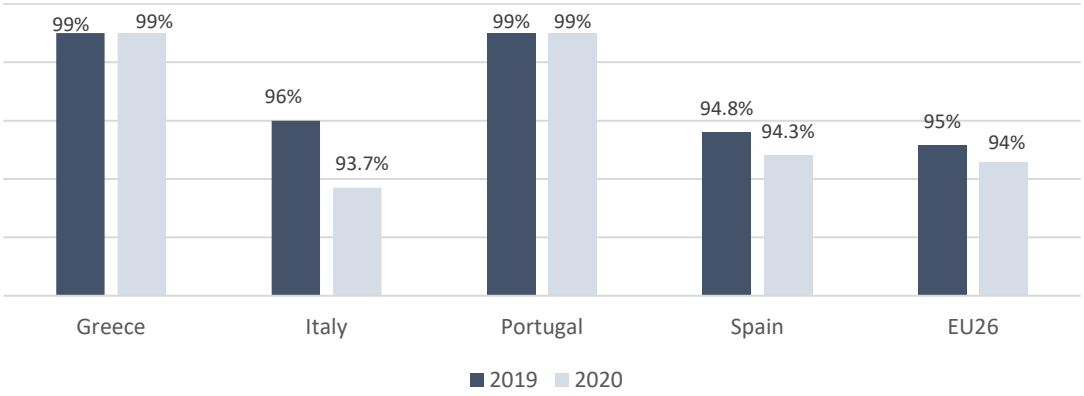

FIGURE 5 – Vaccination rates for DTP3, 2019 and 2020

Source: Authors' elaboration based on OECD and European Union (2022).

As can be seen, of these countries, only Greece and Portugal maintained their high vaccination rates from 2019 to 2020; the remaining two countries decreased slightly, as did the European Union as a whole.

4.2.2. THE EFFECTS ON NON-COVID CITIZENS

Due to this pandemic, a significant number of healthcare services were greatly affected, and these changes had serious consequences even for citizens not infected by the SARS-CoV-2 virus, especially during lockdown periods. These consequences were felt practically across the entire healthcare system, including, among others, primary care, mental health, cancer care and elective surgeries. In particular, cancer patients tended to be diagnosed late and elective surgeries were suspended. Today, much remains to be done to partly recover from these consequences (OECD and European Union, 2022).

Since the beginning of the pandemic, a considerable proportion of Europeans have reported high unmet healthcare needs. At the EU level, more than 20% reported missing tests or treatments in the first year of the pandemic, and around 20% still felt the same share of unmet needs in the spring of both 2021 and 2022. Figure 6 presents such unmet healthcare needs in the first and second years of the pandemic in the four Southern European countries, compared to the European Union figures (Eurofound, 2022).

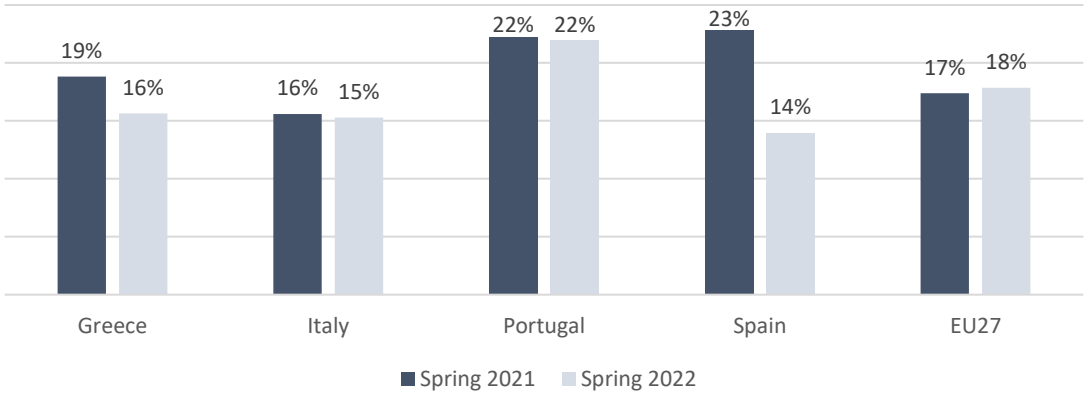

FIGURE 6 – Unmet healthcare needs in the first two years of the pandemic

Source: Authors' elaboration based on Eurofound (2022).

On the other hand, inpatient and outpatient mental health services were also suspended during the pandemic, with a 17% decrease in Europe in 2020 compared to pre-pandemic levels. Figure 7 shows such decreases in three Southern European countries. Data for Greece were not reported, as well as for Bulgaria, Croatia, Cyprus, Denmark, Ireland, Luxembourg, Malta and Romania.

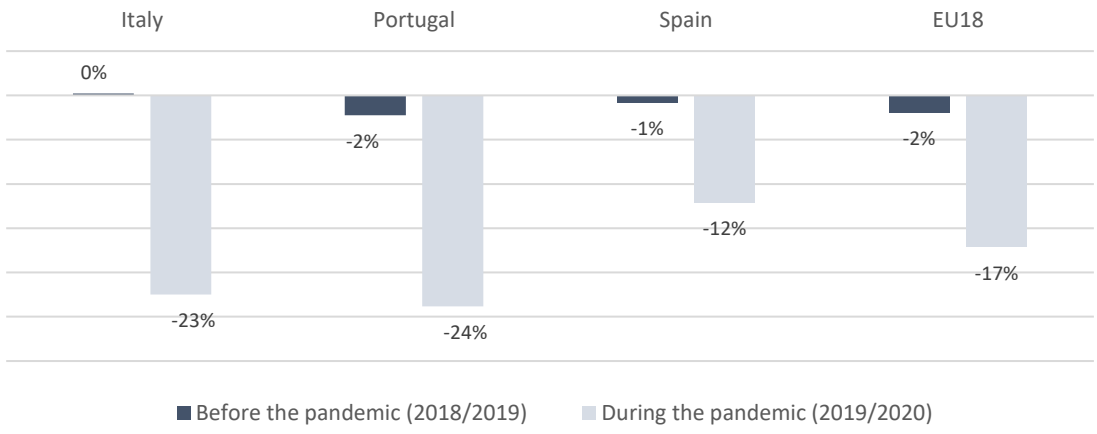

FIGURE 7 – Decrease in mental health service use

Source: Authors' elaboration based on OECD and European Union (2022).

We can see that in two of these countries, from 2019 to 2020, there was a large decrease in this type of services.

Another relevant health indicator is hospital discharges of cancer patients, which have decreased during the pandemic. When comparing 2019 with 2020, overall in the European Union, there was a decrease of 11.5% in this type of discharges. Although the figures for Greece are unknown, the remaining Southern European countries showed decreases in the supply of admissions to this type of patients in the order of 15.2% for

Portugal, 13.1% for Italy and 12.7% for Spain (Figure 8). For the EU average, data from Bulgaria, Croatia, Cyprus, Denmark, Luxembourg, Malta and Romania are still missing.

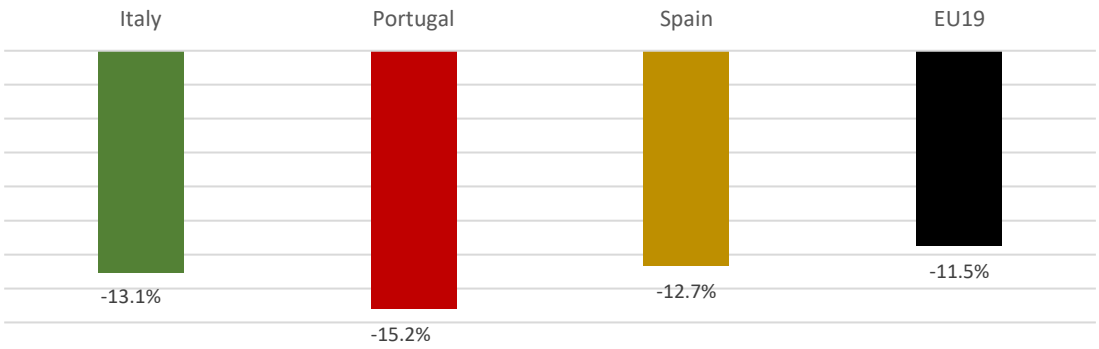

FIGURE 8 – Percentage change 2020/2019 for hospital discharges for patients with all types of cancer

Source: Authors' elaboration based on OECD and European Union (2022).

The pandemic has also seen a dramatic reduction in cancer-related surgical interventions. Overall, as shown in Figure 9, the average in EU countries in 2020 ranges from 10% to 20% per surgery. In addition to Greece, data from Cyprus, Finland, Latvia, Malta and the Netherlands are not included in the European average.

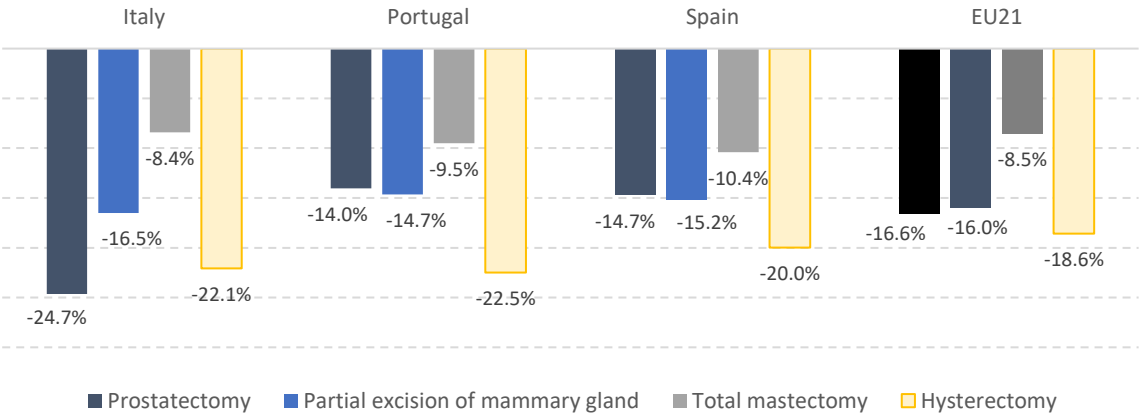

FIGURE 9 – Percentage change 2020/2019 for cancer surgeries

Source: Authors' elaboration based on OECD and European Union (2022).

This suspension of elective surgeries, which in some countries lasted four to eight weeks, was the result of fears that patients would become infected by going to the hospital (Webb *et al.*, 2022). However, after the peaks of the pandemic and lockdowns, the various countries of the European Union took measures to shorten these delays and to reduce the waiting lists that were then increased.

According to the OECD Health Systems Resilience Questionnaire (OECD, 2023), this involved more funding dedicated to health professionals (Italy and Portugal), the addition of more working hours (Italy), and the hiring of more professionals, improved operating room capacity, involving private providers, or digital consultations (Greece, Italy and Portugal).

4.3. Third Order Effects

This last category reflects the long-term effects that are felt on the socio-economic determinants of health but also on the performance of health systems, social policies and other socio-economic sectors. These effects are perhaps now beginning to be clearly evident and felt.

In the context of health system efficiency, the issue of sustainability and resilience has become a pressing concern. For example, an analysis (Lupu and Tiganasu, 2022) carried out for the period January 2020 to January 2021 concludes that Portugal had a high level of efficiency, Greece and Spain had intermediate efficiency scores and, finally, Italy had the worst efficiency levels. Future work will make it possible to assess the evolution of these performance indicators of health systems, using other indicators and other methods.

At the household level, the year 2021 pointed to signs of recovery as shown in Figure 10, after the sharp drop in per capita consumption in 2020. This drop was more pronounced in Spain and less so in Portugal and Greece.

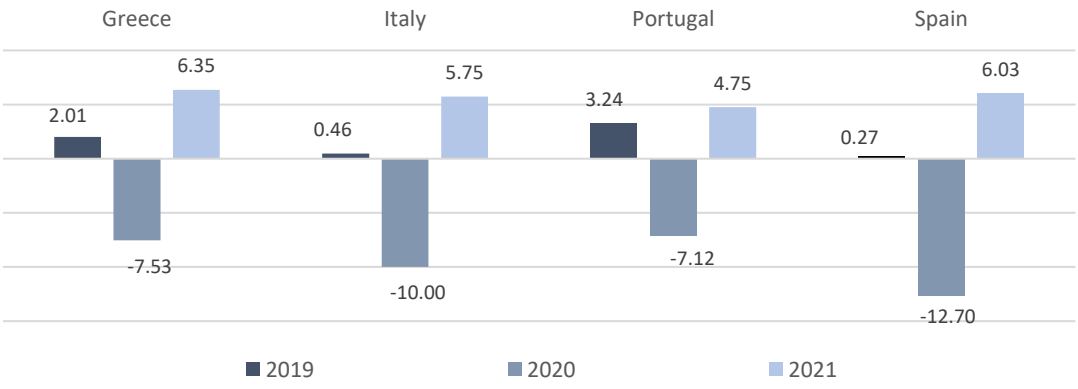

Figure 10 – Real growth rate of final consumption per capita (%)

Source: Authors' elaboration based on OECD Stat. Retrieved from https://stats.oecd.org/, last accessed on 01.03.2023.

Finally, the evolution of public debt in these countries has played a key and constraining role in the evolution of the welfare state and the health system in Southern European countries. Figure 11 shows how public debt evolves as a percentage of GDP.

None of the countries complies with the rules set out in the Stability and Growth Pact. Greece has worrying levels of debt as a share of GDP, unlike Spain which has a lower figure and is therefore less restrictive to the implementation of public policies.

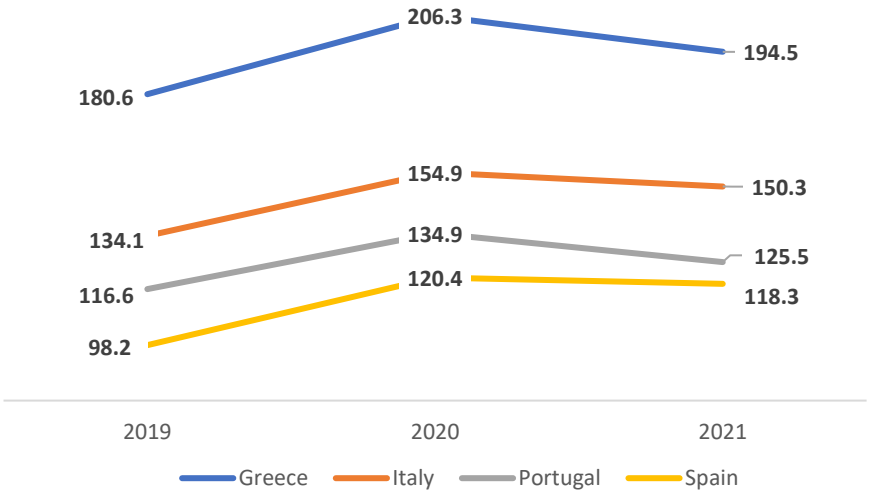

FIGURE 11 – Evolution of public debt as a percentage of GDP

Source: Eurostat Database. Retrieved from https://ec.europa.eu/eurostat/data/database, online code GOV_10DD_EDPT1, last accessed on 05.01.2023.

CONCLUSION

This essay aimed to briefly compare some socio-economic indicators reflecting the effects caused by COVID-19 in Southern European countries. The possible matrix of indicators is very wide and may be denser depending on the criteria used to establish first, second and third order effects. In our analysis, we have briefly focused on the groups of younger people and non-COVID citizens. However, analyses based on other age groups, income or education levels, nationality, employment status, among other aggregation criteria, can be pursued.

The second- and third-order socio-economic effects of COVID-19 are still being felt, especially the long-term effects, and it is not clear when they will stop being felt. However, to counter this uncertainty, we are confident in noting that the effects of COVID-19 are not equitable across populations and that indeed it is the most disadvantaged and vulnerable groups in society that carry a greater relative burden of these effects. Southern European countries, despite their differences, are alike in their suffering from financial pressures and in the burden of public debt that together serve to limit the response of public health and social policies. The monitoring and follow-up work of these countries will continue in the future and will assess whether the evolution of social, economic and health indicators is converging or diverging with the European Union

average, so that future national and European policies can contribute or maintain convergence towards the best European performance, safeguarding regional and national idiosyncrasies. The implementation and enforcement of the Recovery and Resilience Plan will have observable and measurable effects. A future work will be to analyse the role of this plan in the convergence of the different indicators of second and third order effects of COVID-19 in European countries as well as the multiplier effects generated by investment in the green transition and digitalization sectors.

Edited by Scott M. Culp

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Received on 02.03.2023

Accepted for publication on 16.06.2023

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