

Mediterranean Economies 2021-2022

Scientific committee:

Hassan Abouyoub (Ambassador to His Majesty the King of Morocco)
Adalgiso Amendola (University of Salerno)
Paola Avallone (CNR-ISMed)
Naor Ben-Yehoyada (Columbia University)
Patrizio Bianchi (Minister of Education)
Salvatore Capasso (CNR-ISMed)
Claudio De Vincenti (University of Rome «La Sapienza»)
Anna Maria Ferragina (University of Salerno)
Giampaolo Frezza (University of Rome «LUMSA»)
Michael Herzfeld (Harvard University)
Paolo Malanima («Magna Graecia» University of Catanzaro)
Luigi Paganetto, President (University of «Tor Vergata», Rome)
Desirée A.L. Quagliarotti (CNR-ISMed)
Giovanni Tria (National School of Public Administration)
Marco Zupi (International Centre for Policy Studies)

Editorial committee:

Coordinator
Giovanni Canitano (CNR-ISMed)

Design and pagination
Aniello Barone (CNR-ISMed)

Editing
Giovanni Ruggiero (CNR-ISMed)

English editor
Mark Walters

Mediterranean Economies 2021-2022 web site: www.ismed.cnr.it/rem
Report database: www.ismed.cnr.it/economie_mediterranee

Istituto di Studi sul
Mediterraneo (CNR-ISMed)

Mediterranean Economies 2021-2022

edited by
Salvatore Capasso and Giovanni Canitano

Società editrice il Mulino

I lettori che desiderano informarsi sui libri e sull'insieme delle attività della Società editrice il Mulino possono consultare il sito Internet: **www.mulino.it**

ISBN 978-88-15-29463-0

Copyright © 2022 by Società editrice il Mulino, Bologna. Tutti i diritti sono riservati. Nessuna parte di questa pubblicazione può essere fotocopiata, riprodotta, archiviata, memorizzata o trasmessa in qualsiasi forma o mezzo – elettronico, meccanico, reprografico, digitale – se non nei termini previsti dalla legge che tutela il Diritto d'Autore. Per altre informazioni si veda il sito **www.mulino.it/fotocopie**

Contents

Introduction. The Mediterranean after the calamity: economics and politics in the post-pandemic world, <i>by Salvatore Capasso and Giovanni Canitano</i>	p. 7
Regions of the Mediterranean	23
POLITICAL GEOGRAPHY OF THE MEDITERRANEAN	
1. The Middle East and North Africa in 2021: brewing crises and geopolitical re-alignments, <i>by Roberto Aliboni, Francesca Caruso and Andrea Dessì</i>	27
THE ECONOMIC CONSEQUENCES OF THE PANDEMIC	
2. The year after: how Mediterranean economies coped with the COVID-19 pandemic, <i>by Salvatore Capasso and Valerio Filoso</i>	73
3. Italian Firms Exposure, risk and sentiment to COVID-19: impact on credit behaviour and patrimonial status, <i>by Anna Maria Ferragina and Stefano Iandolo</i>	99
4. Trade flows and supply chain resilience in the era of the COVID pandemic, <i>by Luca Forte and Giovanni Canitano</i>	135
5. Digitalization, remote working and employment: a focus on the Mediterranean region, <i>by Luisa Errichiello and Luigi Guadalupi</i>	157

6 Contents

HUMAN DEVELOPMENT, SUSTAINABILITY AND ENVIRONMENT

6. Human development in the Anthropocene: rethinking sustainability in a post COVID-19 Mediterranean, *by Chiara Ferro and Desirée A.L. Quagliarotti* p. 201
 7. Environmental conflicts in the Mediterranean region, *Marco Armiero, Alexandra D'Angelo, Serena Tarabini and Salvo Torre* 227
 8. Public spaces and the COVID-19 pandemic: two best practices in the Mediterranean area, *by Marichela Sepe* 261
 9. Socio-economic impact of COVID-19 infection on human mobility: evidence and perceptions on immigrants in Italy, *by Immacolata Caruso and Bruno Venditto* 277
- MEDIA
10. A global but not Mediterranean pandemic, *by Marco Ferrazzoli and Cecilia Migali* 307
- The authors 325

The economic consequences of the pandemic

2. The year after: how Mediterranean economies coped with the COVID-19 pandemic

by Salvatore Capasso and Valerio Filoso

Introduction

After many months of fear and uncertainty, vaccines have finally shed light on the future of economies around the globe, and also Mediterranean economies seem to have started a recovery.

Forecasts (IMF and World Bank) have recently changed for the better and signalled a more robust recovery amid uncertainties. Yet the road ahead is paved with obstacles and uncertainties: everything depends on the race between vaccinations and the spread of the virus. Moreover, the pandemic has accelerated digitalization processes in production systems, adding strain and challenges in many economies.

The COVID-19 pandemic has impacted heavily on all Mediterranean countries, with unprecedented consequences in terms of human loss of life. Moreover, the health emergency has been accompanied by an unforgiving economic crisis. In 2020, in most Mediterranean countries there was a double-digit fall in GDP. In some instances, the crisis wiped out decades of growth.

This was the case of Italy, where the recession caused a one-year fall in GDP which cancelled out twenty years of aggregate growth. Some countries, like Egypt and Turkey, managed to do relatively well in terms of GDP contraction. Still, the long-term consequences remain uncertain.

The crisis has been asymmetric in many respects. Governments passed frontline public health measures preventing the spread of the virus, thereby bringing to a halt sectors involving face-to-face interaction, like restaurants and tourism, or significant public gatherings, like sporting events, concerts and art exhibitions. These economic sectors suffered most and in some instances were completely shut down. At the same time, governments also increased current expenditures supporting the drop in short-run

domestic demand and sustaining the public health sector. These expansionary policy interventions have been crucially important to shelter the economies, particularly in Euro-Med countries¹. Yet they have also increased public finance deficits to the point that new doubts and worries are emerging on public debt sustainability in many Euro-Med countries.

The pandemic has increased poverty and inequality across countries and within countries. In the Mediterranean basin, this is particularly evident because of the sharp differences in the levels of GDP per capita across economies, particularly between Euro-Med countries and South Med countries. History shows that following the Black Death and other plague episodes in Europe [Alfani 2020], the health and economic consequences were more severe for poorer people and social classes living at the margins. By employing data from past pandemics, Furceri *et al.* [2021] show that distributional effects included higher Gini coefficients, larger income shares for those in the higher deciles, and declining employment rates for low-skilled workers. The COVID-19 health emergency might also have strong distributional wealth and income effects.

The eligibility criteria for public support has shelved those working in the informal sector, making their living conditions harsher; also, unequal access to health facilities has made public policies weaker, with overt adverse external effects.

Moreover, given the real global dimension of the current pandemic, the long-term effects may prove to be much larger. Still, data on changing distributional patterns due to the pandemic remain scarce, and long-run forecasts fickle. Since income distribution reflects many complex and often unexpected interactions, appropriate data are challenging to obtain (especially in the Southern Med area), and error measures are rife. Yet we attempt to provide some guess on the long-run risks associated to the current crises in terms of increasing inequalities and disparities.

Pervasive and distorting rules in labour and product markets, red tape and inefficient tax systems shift income production to-

¹ Henceforth, in our analysis we group Euro-Med countries: Cyprus, France, Greece, Israel, Italy, Malta, Portugal, Spain; East Med countries: Albania, Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia, Serbia, Slovenia; South Med countries: Algeria, Egypt, Israel, Jordan, Libya, Morocco, Tunisia, Turkey.

wards the informal sector, lowering wages and making them more volatile. Inadequate rules benefit concentrated interest groups and spread costs over some population sectors, mainly hitting fragile households, often pushing them into the informal sector, further reducing public policy effectiveness and household welfare. Addressing the root causes of informality is vital to increase the benefit to cost ratio of economic recovery and health policies. To foster efficiency in public policies, governments should also target future expenditures to reduce access inequality to health services, promote formal sector unemployment, and mitigate perverse incentives from poor rules.

Social unrest may also stem from epidemics. Barrett and Chen [2021] use a panel of 130 countries to show how epidemics fuel social unrest across countries. The authors show how epidemics initially mitigate unrest within countries since social distancing prevents citizen mobilization against governments. While COVID-19 abates unrest in affected countries in the short run, mean reversion suggests that social conflicts may arise again after the pandemic fades away. Governments must be ready to face such risks. Mediterranean countries in the EU are likely to experience less stress because of massive expenditure programmes, while countries outside the EU will face higher risks.

Individual-level analysis shows that preferences toward redistribution and trust in governments' responses to COVID-19's epidemics vary according to personal fragility. Gender, lack of education, a history of unemployment and pandemic-related illnesses reduce benign perceptions of government policies. Yet those who favourably perceive government responses to the epidemic also favour boosting safety nets for needy households [Balasundharam, Dabla-Norris 2021].

Long-run pandemic effects in Southern and Eastern Med countries may be more pronounced than elsewhere because of high poverty, low formality and limited human capital growth. These countries' governments, constrained by low public budgets, need to redesign their functioning rules to favour significant changes in regulations and institutions. Still, these are the countries where pressure groups capture legislators and bend fiscal laws and regulations to favour special interests. In such cases, political hostility to change is more pronounced and harder to overcome.

In the Med Euro area, vast support from the EU will relieve interim distress from COVID-19 for countries with efficient governance structures. Yet the same transfers to inefficient governments, while mitigating pressure from interest groups, may also boost resistance to institutional change. To prevent further biases the EU needs to condition transfers on institutions' changes targeting well-specified policy objectives.

Trust in core political institutions paves the way to reforms fostering efficiency and helps to determine successful health policies. Dabla-Norris *et al.* [2021] show that vaccine hesitancy depends, among other determinants, upon trust in government. Populism, fuelled by perceived social exclusion and deteriorating income ranking, promotes intense hostility toward corrupt elites, distrust in democratic institutions and demagogic rhetoric favouring autocratic governments. Distrust in democracy promotes disregard for others' welfare and opportunistic behaviour, which only worsens politics by feeding a self-fulfilling expectations cycle. In recent months, populist rhetoric has cast doubts on COVID-19 health policies, resulting in vaccine hesitancy and opposition that can hinder health policy outcomes. Barrafreem, Tinghög, Västfjäll [2021] show that trust in government enhances general and financial well-being. To develop a resilient policy-response setting to unforeseen finance and health shocks, governments will have to address demands for change and address dangers from populist forces in the following years. Building trustworthy governments will require trusting citizens and vice versa.

After briefly describing the effect of the pandemic on the most relevant macroeconomic aggregates in the Mediterranean basin (section 1), this chapter discusses the impact of the crisis on public finances (section 2) and expected inflation (section 3). The last section concludes.

1. The macroeconomic fundamentals

The pandemic hit hard all countries in the Mediterranean, both in terms of human loss and GDP reduction. As one would expect, the dynamics of the pandemic dictated the dynamics of the economies. Around the world, countries suffering most from COVID-19 were also those that suffered most in terms of GDP

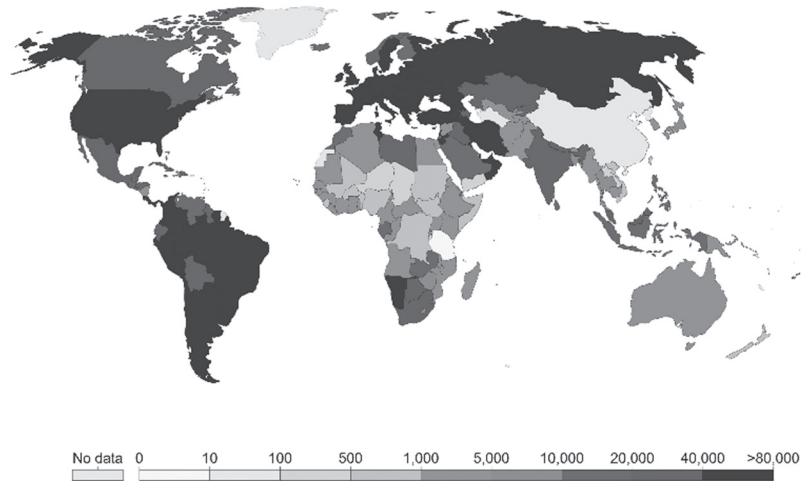


FIG. 1. Cumulative COVID-19, cases from January 2020 to July 2021.

Source: Johns Hopkins University CSSE COVID-19 Data.

contraction. Yet the correspondence between the spread of the virus and economic contraction depends on a number of other factors such as the economy's underlying fragility, government intervention and population density (fig. 1).

Within each country, the timing and strength of waves of the virus also powered the waves in the main economic macro aggregates. In Italy (fig. 2), for instance, the rapid succession of two waves in the pandemic, the first peaking in March/April 2020 and the second in November/December 2020, was particularly harmful since it caused uncertainties, prolonged lockdowns and a delay in the government's effective response to shelter the economy from the negative impact of the pandemic. Similar patterns in the responses to pandemic shocks have occurred in other countries in the Med area.

Despite time delays, dynamic irregularities and some degree of asymmetry in the virus spread, and in the consequences across economies and sectors, the impact of COVID-19 has been significant all over the Mediterranean countries. Apart from some exceptions, the Euro-Med economies have registered the largest falls in GDP. In 2020, year on year change, Spain suffered an

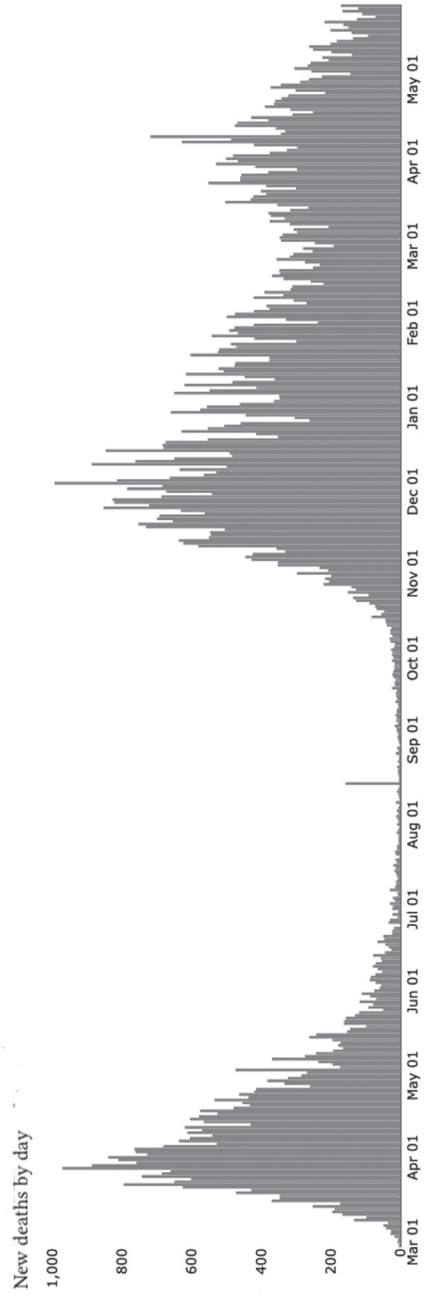


FIG. 2. COVID-19 related deaths in Italy from March 2020 to May 2021.

Source: World Health Organization (WHO), COVID-19 Explorer.

unprecedented decrease in GDP of more than 11 per cent, while GDP in France, Greece, Italy and Portugal fell by almost 9 per cent (see fig. 3). To put these figures in perspective, this drop in GDP in Italy, for example, wiped out the cumulative growth in Italian GDP over the previous 20 years (which was around 10 per cent). In general, the effects of the pandemic have been particularly damaging in already fragile economies. The ongoing military unrest in Libya contributed to a drop in GDP in 2020 of almost 60 per cent (for convenience we did not include Libya in fig. 3), while political turmoil in Lebanon was undoubtedly a major co-cause for a plunge in GDP of 25 per cent. Among the other South Med countries, also Tunisia has been particularly damaged and has seen its GDP growth rate decline by almost 9 per cent. Yet the crisis has not left any area in the basin untouched. In the East Med the already weak economy of Montenegro saw the level of GDP fall by more than 15 per cent while GDP fell by more than 9 per cent in Croatia.

Surprisingly, in this gloomy scenario some economies managed to do relatively well. Egypt and Turkey registered an increase in the level of real GDP, while economic contraction in Serbia, Israel, Jordan and Albania was relatively mild. Once again, the main reason lies in the spread and management of the pandemic. For instance, despite being heavily affected by the virus spread, Israel was one of the first countries in the world to apply a vaccination programme for much of the population, while the pandemic only mildly hit Egypt, which explains the country's better performance.

Amid strong uncertainties, almost in every country the recovery seems to be taking root vigorously. The extent of the GDP rebound in 2021 depends on the combination of government intervention, vaccination programmes and the specific nature of fundamentals in the various economies. GDP in Euro-Med countries is expected to increase between 4 and 6 per cent in 2021 (see fig. 3) and the IMF projects a full recovery in 2/3 years' time. With some exceptions, all other Med countries will also enjoy a substantial rebound. In 2021, GDP in France is expected to grow at 6 per cent, in Spain even more at 6.4 per cent. Apart from Libya, Montenegro is expected to record the highest level of GDP growth at 9 per cent. This scenario of recovery, however, is extremely uncertain and depends on how governments

support expansionary measures and how the pandemic recedes through vaccination.

Lebanon appears to be an exception. The country is going through very difficult times both in terms of political stability and economic conditions and the IMF have no projections for the future of this economy. The terrible explosion on 4 August 2020 at Beirut port, which caused more than 200 deaths and 6000 injured, has not been followed by the expected recovery, and the economy remains imprisoned in stagnation that has now lasted for many years. The country is still suffering the consequences of war in Syria, the main trading partner of Lebanon, and the consequent reduction in trade.

Political turmoil and institutional uncertainty are weighing heavily on Tunisia's recovery as well. The country has encountered a difficult period of political instability which has added to the heavy blow dealt by COVID-19: the pandemic caused almost 19000 deaths in a country of only 12 million people, a huge health catastrophe with large economic consequences. These factors may hamper the road to economic recovery.

The economic consequences of the pandemic might have been harsher if governments had not strongly intervened to shelter their economies. Measures to sustain individual incomes and to reduce firms' losses, an increase in public investments and actions to cushion foreclosures and bankruptcies are only some of the many different policy measures which governments around the world have implemented to sustain specific sectors and the economy overall. In particular, many governments have also introduced measures to reduce the possibility of firing workers, which is why unemployment rates do not appear to have reacted strongly to GDP contraction. It is indeed a surprise to note that the unemployment rate in some countries went down, albeit by a small amount, despite the unprecedented fall in production. Between 2019 and 2000 the unemployment rate in Greece, Italy and North Macedonia fell by almost one per cent, while no Mediterranean countries showed a sharp increase in unemployment (see fig. 4). Job market conditions worsened more severely in countries which were hard hit by the crisis and where welfare systems are not strong enough to support workers. South Med countries, especially Jordan, Algeria and Morocco, registered the highest increase in unemployment rates (3.6, 2.9 and 2.7 per

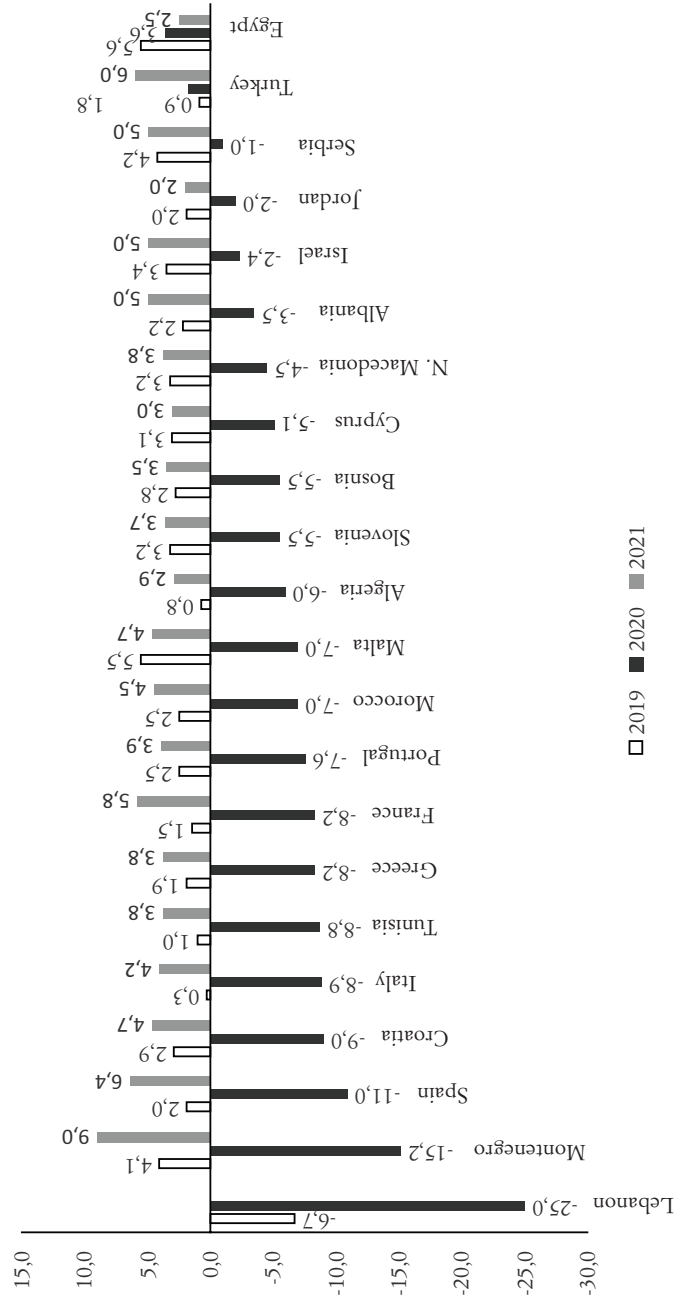


FIG. 3. GDP (constant prices) growth rates.

Source: IMF, World Economic Outlook databases. Authors' own calculations.

cent, respectively). But also all East Med countries (except for North Macedonia) suffered a relatively high increase in the unemployment rate: between 2019 and 2020 Bosnia and Herzegovina registered a 3.3 per cent increase in the unemployment rate.

It may be presumed that once the Euro Med countries withdraw their welfare support measures from the economies, the unemployment rate might increase before the labour market benefits from the recovery in production levels.

The aggregate figures hide significant disparities in the labour markets of economic sectors: the crisis has been far from symmetric, with some sectors suffering more than others (tourism, transport, social events etc.). In these sectors, although the data are very provisional, there are signs that the impact on the unemployment rate has been particularly harsh, but with the recovery the above sectors are also those that appear to grow more. Economies have somehow adapted to the pandemic life, for

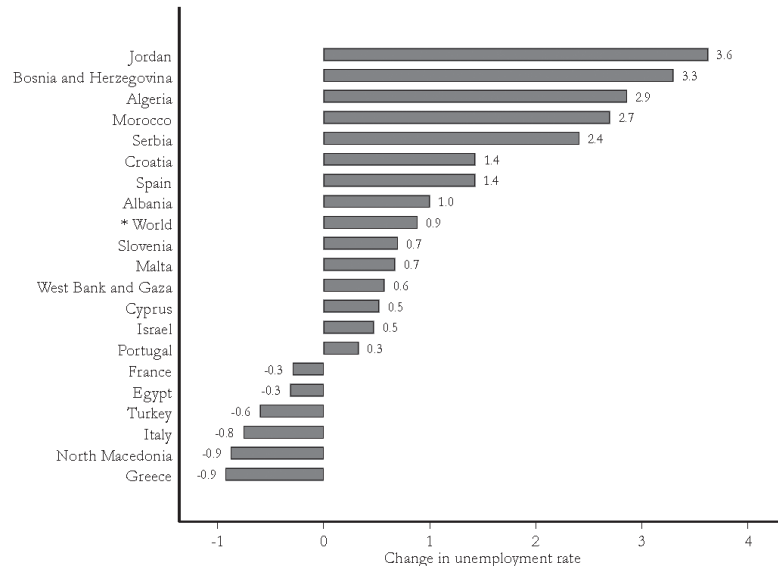


FIG. 4. Unemployment rate change over 2019-2020.

Source: IMF, World Economic Outlook databases. Authors' own calculations.

example through «teleworking» or other measures to overcome closures. This adaptation has helped to speed up the recovery.

The pandemic has also hit consumer behaviour and preferences. The economic uncertainty, the fall in income and the worsening of health conditions have influenced the propensity to consume and to save with sizable effects on consumer behaviour which might be long-lasting.

Despite the sharp drop in production, in almost all countries in the Mediterranean, savings have decreased more than GDP, with the results that the savings rate has declined. Between 2019 and 2020 Montenegro experienced a more than 17 per cent decrease in the savings rate, although the reduction in savings has been substantial in all other Med countries (see fig. 5). To some extent this is surprising since in a time of uncertainty and lack of confidence the savings rate usually increases.

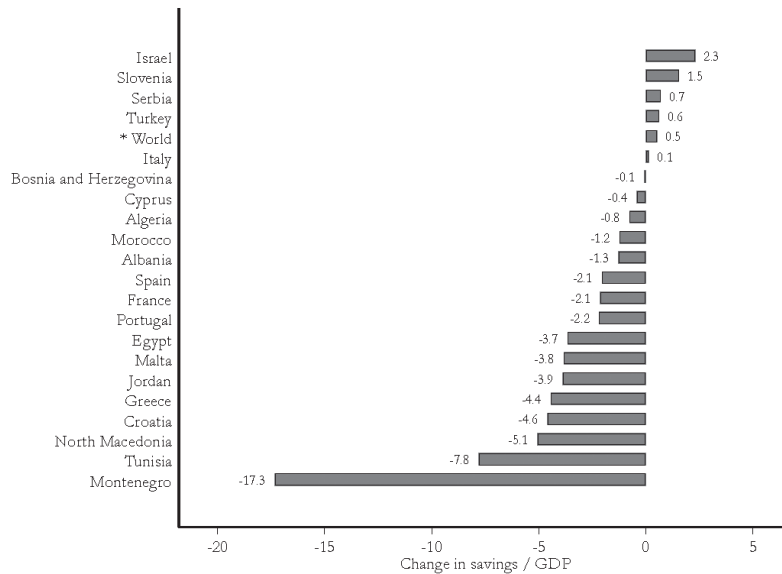


FIG. 5. Savings rate change over 2019-2020.

Source: IMF, World Economic Outlook databases. Authors' own calculations.

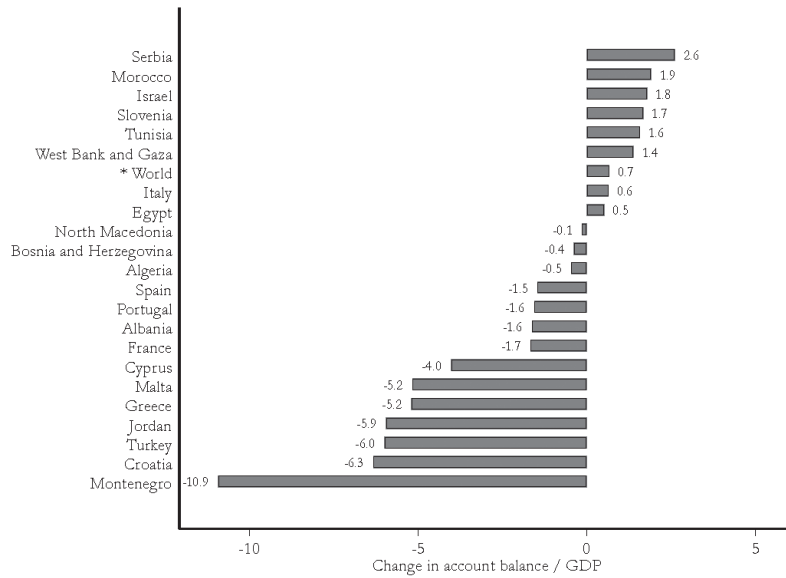


FIG. 6. Balance of Payment change (2019-2020).

Source: IMF, World Economic Outlook databases. Authors' own calculations.

The economic crisis which the pandemic triggered was mostly nourished by a sharp decline in international trade which in some instances came almost to a complete halt. Limitations to travelling, imposed social distancing, the introduction of strict health measures, and other government interventions were great obstacles to exports and imports worldwide. The Mediterranean area countries particularly suffered a reduction in international trade. Exports fell almost everywhere in the area: Albania, Croatia and Greece saw exports fall by more than 25 per cent between 2019 and 2020, but also larger economies like Spain recorded a substantial decrease in exports of more than 20 per cent. And yet, since imports also went down by a large amount, the balance of payments improved in some instances. This applies to Israel, Serbia, Morocco and Italy, among the major economies (see fig. 6).

2. Public finance during COVID-19

Mediterranean governments have sought to tackle the fall in GDP by implementing massive and often coordinated policy measures: national and supranational institutions, like the EU or the World Bank, have functioned as last-resort risk insurers at country level. Fiscal interventions have varied across countries because of current national incomes, budget sizes, and sovereign debt reliability, though not all countries implemented sustainable spending policies. While timely public interventions addressed the short-run damaging effects of the pandemic, often producing considerable results, they also negatively impacted almost all leading public finance indicators. Public deficits increased, as did the stock of public debt in almost all countries, particularly in those with an already high level of public debt over GDP.

We now examine in turn the effects of the COVID-19 crisis on public expenditures, tax revenues, public deficits and public debt.

2.1. Expenditures

Data show that the most significant increase in public expenditures in the Mediterranean area has occurred in the Euro Med countries and East Med countries. To obtain a rich and detailed picture of spending patterns, we employ box-and-whisker plots. These graph boxes include indicator values from the second to the third quartile, white lines represent the median, and whisker extremities mark 1.5 times the interquartile range. This graphical device provides a picture of how public expenditure has changed in the areas in question and is likely to continue to do so.

In 2019, the Southern Med countries registered the most significant spending increase, but in 2020 median expenditure policies did not change significantly (see fig. 7); nonetheless, the distribution of changes in 2020 became more spread out. The pattern for Euro Med countries shows that active fiscal constraints in 2019 brought a zero median increase and that strictly positive changes began in 2020. The same group registers widespread spending growth in 2021, while the median change will remain reasonably stable. Enlarged whiskers show that the distribution

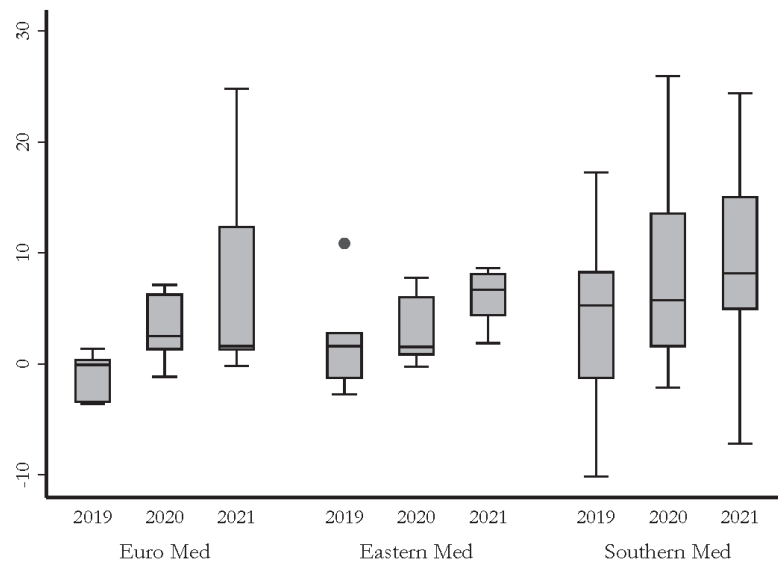


FIG. 7. Public expenditure per cent change.

Source: IMF, World Economic Outlook databases. Authors' own calculations.

spread will widen, signalling increasing different policy expenditures in the Euro Med countries. The East Med group shows a sizeable increase between 2020 and 2021.

Between 2019 and 2020, public expenditures to GDP ratios ranged from 0.2 per cent in Algeria to 10.8 per cent in Greece; on average, public spending increased by 6 per cent ($sd=3.5$), considerably more than the world average (0.5 per cent). EU members recorded higher mean increases (mean=8 per cent, $sd=2.3$) due to relaxation of fiscal constraints.

Government spending policies can be grouped into two main categories:

- (1) additional expenditures and foregone revenues;
- (2) liquidity support in the form of equity, loans and liability guarantees.

In the Med Area, liquidity support, as measured by the ratio of total financial support to GDP, is by far the most significant spending item (mean=6.9 per cent, $s.d.=1.8$): the highest ratios show up in Italy (35.3 per cent), and France (15.2 per cent);

Egypt and Tunisia registered the smallest proportions, with 0.1 per cent and 0.8 per cent, respectively (see fig. 8).

The extra spending and forgone revenues item splits into health and non-health-related expenses: Serbia and Israel have increased their health expenses to GDP by 1.7 and 1.6 per cent, respectively. In contrast, Egypt and Jordan increased their ratios by only 0.2 per cent. The health-related diverging expenditures show that the Euro Med countries increased their spending rates by one per cent or more on average, and since these countries already possessed highly developed and well-financed health systems, these increases will exacerbate differences in health spending and COVID-19 containment measures across the Mediterranean. For this reason, future policies will need to target health inequalities as a primary objective.

Non-health-related spending includes wage support, direct financial transfers to affected enterprises and independent workers, direct transfers to low-income households, unemployment

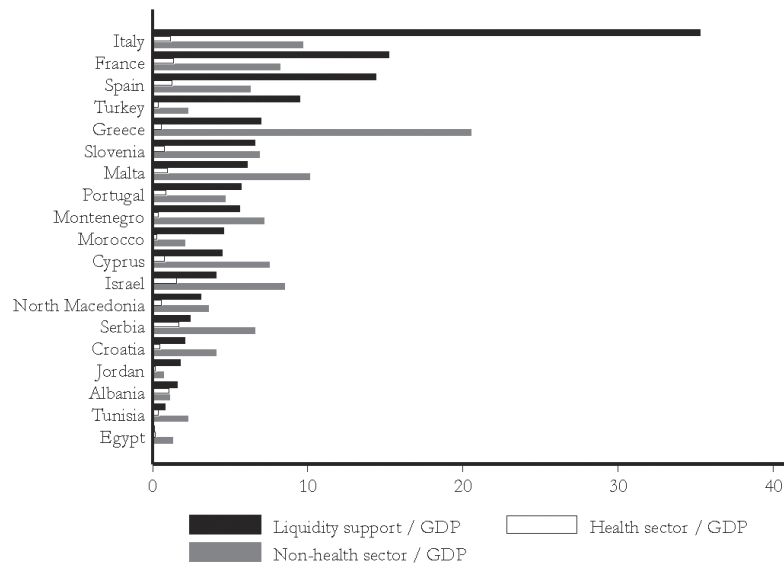


FIG. 8. Government spending by category as a share of GDP.

Source: IMF, World Economic Outlook databases. Authors' own calculations.

support along with other benefits, additional social programmes. Moreover, many governments also boosted incentives to green investments to favour transitioning to low-emission production processes. Greece and Malta increased this expenditure item per GDP by 20.5 and 10.1 per cent, respectively, while Jordan and Albania recorded modest respective increases of 0.2 and 1.1 per cent. Overall, spending patterns reveal significant differences based primarily on GDP per capita and the type of supranational institutions' aid. Most Euro Med countries have implemented liquidity support and extra spending measures to keep households and firms safe from COVID-19 in the short run.

The long-term financial costs of these spending policies are uncertain, as more public debt could become a burden in a not-so-distant future, especially for countries with already high public debt. Lastly, spending directed at changing the economic structure may prove ineffective when national and local governments poorly design and execute project details. Governments should consider that excessive bureaucracy and red tape can derail even the most promising spending plans.

2.2. Taxes

The fall in GDP has led to a drop in government revenues. Leaving Egypt aside, during 2020 government revenues fell in almost all Med countries. In Euro Med countries, the year-on-year fall exceeded 6 per cent (see tab. 1). During the same period, total government revenues to GDP ratios remained quite stable because both GDP and revenues fell.

In general, the taxation structure determines the response of actual revenues to GDP changes.

When a progressive income tax represents the main proportion of revenues, the tax rate curve will determine how much fiscal revenues will fall as taxable GDP decreases. By contrast, as GDP falls, fiscal payments to GDP may paradoxically even increase when revenues mainly depend on non-income sources. Revenues may also rise when short-run economic changes benefit wealthy people in countries with strongly progressive tax systems.

The expected per cent changes for 2021 look encouraging because of the economic recovery, though concerns on the spread

Tab. 1. Government revenues (billions national currency)

Country	2019			2020			2021			Country	2019			2020			2021			Country
Cyprus	9,3	-4,0	7,1	2,4	-7,5	11,5	2,4	-7,5	11,5	Algeria	-3,5	-15,9	-3,9	3,5	-15,9	-3,9	3,5	-15,9	-3,9	Algeria
France	1,2	-6,2	5,9	3,2	-7,5	4,5	3,2	-7,5	4,5	Egypt	17,8	3,8	15,5	3,2	3,8	15,5	3,2	3,8	15,5	Egypt
Greece	-0,7	-8,9	8,0	6,7	-8,6	8,9	6,7	-8,6	8,9	Israel	3,3	-3,5	7,5	6,7	-3,5	7,5	6,7	-3,5	7,5	Israel
Israel	3,3	-3,5	7,5	9,4	-13,9	8,9	9,4	-13,9	8,9	Jordan	-2,1	-8,4	12,7	9,4	-8,4	12,7	9,4	-8,4	12,7	Jordan
Italy	3,0	-6,4	5,0	8,2	-6,9	7,4	8,2	-6,9	7,4	Libya	9,0	-52,1		8,2	-6,9		8,2	-6,9		Libya
Malta	4,9	-6,9	6,0	8,2	-1,0	8,0	8,2	-1,0	8,0	Morocco	1,9	4,9	-7,2	8,2	-1,0	-7,2	8,2	-1,0	-7,2	Morocco
Portugal	3,6	-6,5	8,0	4,4	-2,3	5,4	4,4	-2,3	5,4	Tunisia	15,6	-6,1	10,2	4,4	-2,3	10,2	4,4	-2,3	10,2	Tunisia
Spain	3,4	-6,3	9,4							Turkey	12,0	13,2	15,3			15,3			15,3	Turkey
<i>Average</i>	<i>3,5</i>	<i>-6,1</i>	<i>7,1</i>	<i>6,1</i>	<i>-6,8</i>	<i>7,8</i>	<i>6,1</i>	<i>-6,8</i>	<i>7,8</i>	<i>Average</i>	<i>6,7</i>	<i>-8,0</i>	<i>7,2</i>	<i>6,7</i>	<i>-8,0</i>	<i>7,2</i>	<i>6,7</i>	<i>-8,0</i>	<i>7,2</i>	<i>Average</i>

Source: IMF, World Economic Outlook databases. Authors' own calculations.

of new COVID-19 variants persist. Governments and supranational institutions must stay vigilant and be ready to face intense and prolonged revenue uncertainty.

The need to boost the public budget's revenue could tempt governments to raise «good» tax rates. Excise taxes on unhealthy consumption behaviour (tobacco, alcohol and sugar-sweetened beverages) and taxes on carbon and pollutant emissions often appear *prima facie* preferable ways to boost revenues and correct negative externalities. Raising specific taxes influences personal and firms' choices: rates must grow only when clear evidence exists that their levels lie below the optimum. Otherwise, unintended and unpredictable distortions may offset the short-run budget benefits. Governments' legislators and regulators design green and personal consumption incentives and taxes to address specific market failures. Yet such corrective taxes cannot work as shortcuts to prevent general revenues from falling. Also, increases in carbon and fossil fuels' taxes could raise these commodity prices, with overt short-run effects on inflation and hidden long-run costs damaging low-income households. Moreover, these effects may contribute to making income distribution more uneven. Still, some developing countries with insufficient corrective taxes mentioned above could rationally consider raising the corresponding rates [Lane, Glassman, Smitham 2021].

2.3. Deficits

The growth in public sector expenditure over the 2019-2020 period and the corresponding decline in fiscal revenues have produced large deficits in all Mediterranean countries. By measuring deficits using public net lending or borrowing, we find that, by 2021, deficits range from zero for Slovenia and Croatia to 10.4 per cent for Egypt. The Euro Med and the East Med groups have recorded minor deficits, while the South Med group generally shows higher deficits and wider spreads around the median. The IMF expects the Eastern Med group to attain a substantial zero account balance. As public sector's deficits will translate into increased debt, countries with insufficient government credibility will face new fiscal difficulties.

Current governments' deficits reflect massive efforts to ensure people's vaccination, provide relief to the unemployed, and support firms in distress, coupled with falling tax revenues deferrals and cuts due to poor economic conditions. While most of this spending will shrink as the epidemic wanes, the implications of the deficits are here to stay because of their future effects on public debt.

2.4. Debts

The growth in public sector deficit over 2019-2020 and the fall in revenues has translated into a public debt upsurge, destabilizing those governments already much indebted before the pandemic's onset. During 2020, the world's public debt reached a historic peak of 97 per cent of GDP, while debt has grown further to 99 per cent in 2021. These impressive numbers pose worldwide unprecedented financial risks of instability. Facing these challenges requires credible macroeconomic policies to guarantee solvency.

For example, in 2020 Italy has increased its debt to GDP ratio by 20 per cent, raising severe concerns on long-run fiscally sustainable budgets (see tab. 2). The IMF (Fiscal Monitor, April 2021) suggests that countries should retain expenditure flexibility to face COVID-19-related risks and make credible tax commitments to face premature withdrawal of financial support.

Moreover, Mediterranean countries in the EU would count upon new resources from the NextGenerationEU (NGEU) expenditure plan (806,9 billion euros) and the multi-year 2021-2027 budget (210,9 billion euros) to finance growth-boosting sectors, like research, IT expenditures and market development. Mediterranean non-EU countries will benefit from the World Bank Group COVID-19 Crisis Response programme directed at:

1. relieving the pandemic's immediate health and economic effects;
2. restructuring economies and public governance to prevent permanent effects;
3. setting up resilient tools to prevent future health and adverse economic effects arising from the pandemic.

Alongside tax reforms, growth prospects would help establish sustainable public debt. It remains to be seen whether Southern European countries will show efficient spending capacity of EU funds.

TAB. 2. *Public debt/GDP*

Country	2019	2020	2021	2022
Albania	60,9	69,9	70,9	68,8
Algeria	30,2	50,4	60,5	71,0
Bosnia and Herzegovina	20,8	28,6	30,7	31,4
Egypt	74,2	79,5	83,2	81,0
France	89,4	104,3	106,1	105,1
Israel	57,2	70,2	75,6	76,2
Italy	122,1	142,0	144,2	143,1
Jordan	77,3	88,4	91,1	90,9
Morocco	64,9	75,4	76,5	76,7
North Macedonia	40,0	50,5	52,9	53,9
Portugal	110,7	122,9	123,0	117,7
Serbia	48,9	54,6	56,3	53,9
Slovenia	42,7	50,5	52,3	50,9
Spain	82,2	102,3	104,5	104,3
Turkey	25,7	32,3	33,5	35,7

Source: IMF, World Economic Outlook databases. Authors' own calculations.

As interim relief measures gradually fade out as the spread of the pandemic slows down, governments must prevent emergency measures from becoming permanent due to the influence of politically organized pressure groups. After the effects of COVID-19 recede, policymakers will have to broaden the tax base and eventually increase less biasing taxes' rates. Given the implied moral hazard problem – governments could be tempted to announce budget restrictions that will never occur – public authorities must credibly pre-commit to shrinking budget deficits and decreasing debt. Notably, many countries will also need to redesign their public health systems to prevent COVID-19's variants from spreading new pandemics.

The Mediterranean area's public debt to GDP average change amounts to 14.32 per cent (sd=6.5 per cent) during 2020-2021. Italy will reach a 144 per cent ratio, Portugal 123 per cent and France 106 per cent, Algeria will jump to 60.5 per cent with a 30.3 per cent increase (see tab. 2). Using simple regression analysis, we also find the countries with high levels of debt to GDP ratios experienced more significant increases during 2019-2021:

$$\text{Debt_Change} = 20.9 + 0.11 \times \text{Debt_2019} + 20 \times \text{Dummy_Algeria}$$

(Beta's s.e. = 0.03, $R^2 = 68\%$, $N = 15$).

Every debt to GDP rate point in 2019 associates with a 0.11 increase of indebtedness points. The result is worrying and signals risk compounding from already indebted countries that may suffer from financial turmoil. Mediterranean governments must thus stick more than others to credible fiscal rules to prevent global risks and severe public budget restrictions.

Expected increasing inflation will diminish the actual value of existing debt, but refinancing may require raising nominal interest rates, creating liquidity difficulties. Moreover, as central banks cool down inflation by raising interest rates, governments would find it more challenging to manage their public debt.

3. The commodities market

The pandemic and the ensuing crisis and recovery have also put under pressure the commodities market with possible long-run consequences on inflation. The lockdowns and the consequent halt to the transportation sector significantly reduced the world's demand for fuel from January 2020. From 127.1 points, the fuel index fell until it reached 52.77 points in April 2020, with a 58.5 per cent decrease (see fig. 9). The drop was substantial but temporary nonetheless. From April 2020, the index increased steeply until April 2021, reaching 143.1 points due to encouraging news about vaccine rollouts. The Brent daily price followed the same pattern (fig. 10): from \$70.25 per barrel on 6 January 2020, it fell (-87 per cent) to \$9.12 on 21 April 2020. The price has since rebounded to \$73.91 as of 30 July 2021. The data show that the fall in price fall was sharp though very short-lived, while its recovery has been slower but steady.

Swift recovery on Asian markets, sharp OPEC supply cuts (10 per cent, approx.) and good news about vaccines explain this rebound to pre-COVID-19 levels. Yet this increase, along with extensive public recovery plans, may feed higher inflation expectations and inflation fears might push central banks to use deflationary instruments to obtain price stability. In the Mediterranean area, central banks will need to trade off price

stability measures against helping countries rebalance their finances gradually since premature withdrawal of policy support would halt the recovery process. Yet the ECB believes that the current surge in inflation is destined to decline since domestic demand remains weak [ECB 2021] and external price shocks appear temporary.

The food price index recorded an increase during the COVID-19 pandemic, mainly led by vegetable oils and cereals [IMF 2021]. World wheat prices increased because of a dry winter in the US and a Russian consumption tax, while in Europe, wheat price increases may be ascribed to a small harvest. The South-Eastern Mediterranean countries consume a third of cereal imports worldwide, while their population accounts only for 5 per cent [Capitanio, Riviuccio, Adinolfi 2020].

Accordingly, domestic prices correlate with world prices, reflecting large swings due to the epidemics. Policymakers should account for this consumption imbalance which can negatively impact the balance of payments and spark social unrest [Belle-

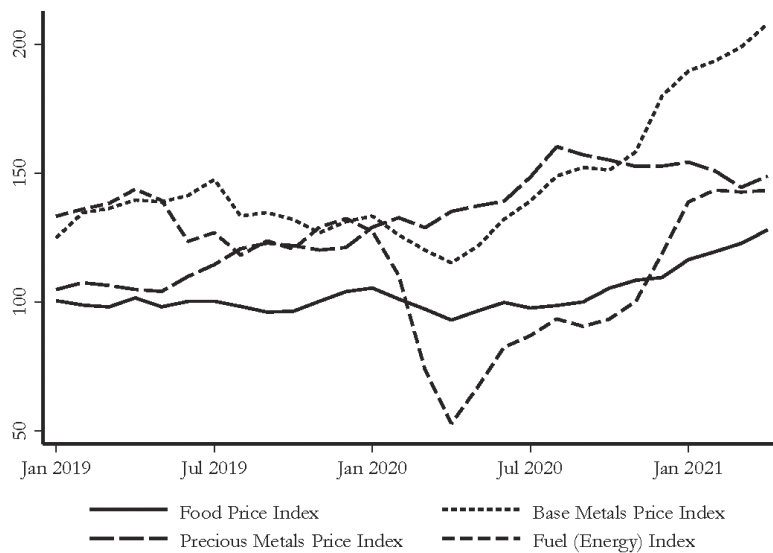


FIG. 9. Commodities price index.

Source: IMF, Primary Commodity Prices database. Authors' own calculations.

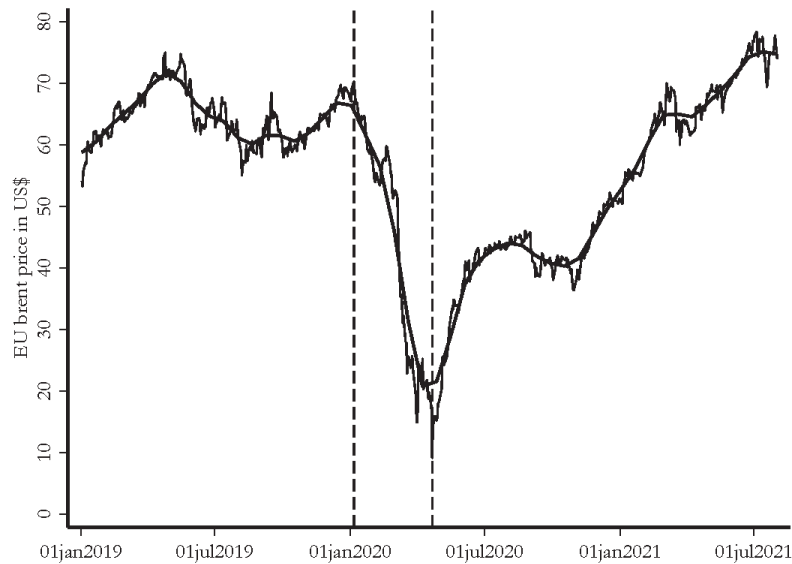


FIG. 10. EU Brent price in US\$.

Source: IMF, Primary Commodity Prices database. Authors' own calculations.

mare 2015], chiefly when social inequality compounds with food price surges or shortages [Capasso, Astarita 2011].

The Base Metals Price Index has followed a steadily increasing trend since April 2020: the index increased by 80 per cent in a year. Positive expectations about China's industrial sector and stimulus packages around the world caused this surge. The EU may have played a role in this increased demand, as the NGEU provides solid incentives and spending designed to increase the market for electric cars; demand for battery components like nickel and cobalt is thus rising and will probably continue to do so. The Precious Metals Price Index reflects the values of gold, silver, platinum and palladium. The index shows a long-term steady increase mainly explained by the use of precious metals in electronics, medicine, antibiotics and catalytic conversion.

Historically, investors in commodities markets use gold as a hedge to oil's volatility [Akhtaruzzaman *et al.* 2021], while general investors use it as a safe haven during financially turbulent times. The data show that gold, along with other precious metals, stop-

ped being a safe haven in August 2020 and switched back to its hedging and industrial uses due to better financial expectations driven by vaccine rollouts and recovery plans [Salisu, Vo, Lawal 2021]. In Mediterranean countries, the rising prices of precious metals have had no specific impact, save in high-technology sectors mainly located in the EU.

Conclusions

The COVID-19 pandemic has severely affected the world's economy and continues to do so.

With some sectors suffering short-term shocks because of specific technologies and organizations, how much these shocks will produce long-term changes in the structure of economies remains uncertain. Frontline public measures relieving current economic duress remain urgent, though they cannot ensure complete and speedy recoveries. Moreover, most governments want recovery plans while also attaining permanent changes, like boosting the transition to a greener economy.

To be valid, public policies need to address sector traits, health systems, and social inequality levels and causes. Planning horizons and governance quality will determine whether economies will either recover and enhance their efficiency or fall prey to feeble policies and rent-seeking biases. The Mediterranean area, though connected by trade and institutional agreements, shows a broad variety of policies: countries like Italy, Spain and France as well as other EU members experience solid monetary and financial support; other countries, like Morocco, Israel, and North Macedonia, obtain financial aid by bilateral or supranational help. Some, like Libya, Turkey and Lebanon, face either conflict or severe turmoil resulting in minimal management of public finances. Different economic, financial and governance features will decide the success or failure of any recovery measures undertaken.

References

- Akhtaruzzaman, M., Boubaker, S., Lucey, B.M. and Sensoy, A. [2021], *Is gold a hedge or safe haven asset during COVID-19 crisis?*, available at SSRN 3621358.
- Alfani, G. [2020], *Pandemics and Asymmetric Shocks: Evidence from the History of Plague in Europe and the Mediterranean*, in «Journal for the History of Environment and Society», 5, pp. 197-209.
- Balasundharam, V. and Dabla-Norris, E. [2021], *Pandemics and Inequality: Perceptions and Preferences for Redistribution*, IMF, Working Papers, No. 2021/053, available at <https://www.imf.org/en/Publications/WP/Issues/2021/02/26/Pandemics-and-Inequality-Perceptions-and-Preferences-for-Redistribution-50114>.
- Barrett, P. and Chen, S. [2021], *Social Repercussions of Pandemics*, IMF, Working Papers, No. 2021/021, available at <https://www.imf.org/en/Publications/WP/Issues/2021/01/29/Social-Repercussions-of-Pandemics-50041>.
- Barrafrem, K., Tinghög, G. and Västfjäll, D. [2021], *Trust in the Government Increases Financial Well-being and General Well-being During COVID-19*, in «Journal of Behavioral and Experimental Finance», 31, 100514.
- Bellemare, M.F. [2015], *Rising Food Prices, Food Price Volatility, and Social Unrest*, in «American Journal of Agricultural Economics», 97(1), pp. 1-21.
- Capasso S. and Astarita C. [2011], *La distribuzione dei redditi. La disuguaglianza nei paesi del Mediterraneo in Rapporto sulle Economie del Mediterraneo. Edizione 2011*, P. Malanima (ed.), Bologna, Il Mulino, pp. 69-96.
- Capitanio, F., Riviuccio, G. and Adinolfi, F. [2020], *Food Price Volatility and Asymmetries in Rural Areas of South Mediterranean Countries: A Copula-Based GARCH Model*, in «International Journal of Environmental Research and Public Health», 17(16), 5855, MDPI AG, retrieved from <http://dx.doi.org/10.3390/ijerph17165855>.
- Dabla-Norris, E., Khan, H., Lima, F. and Sollaci, A. [2021], *Who Doesn't Want to be Vaccinated? Determinants of Vaccine Hesitancy During COVID-19*, IMF Working Papers, No 2021/130, available at <https://www.imf.org/en/Publications/WP/Issues/2021/05/06/Who-Doesnt-Want-to-be-Vaccinated-Determinants-of-Vaccine-Hesitancy-During-COVID-19-50244>.
- ECB (European Central Bank) [2021], *Interview with Fabio Panetta, Member of the Executive Board of the ECB, conducted by Jun*

- Ishikawa*, available at: <https://www.ecb.europa.eu/press/inter/date/2021/html/ecb.in210526~99707ed7f5.en.htm>.
- Furceri, D., Loungani, P., Ostry, J.D. and Pizzuto, P. [2021], *Will COVID-19 Affect Inequality? Evidence from Past Pandemics*, IMF Working Papers, No 2021/127, available at <https://www.imf.org/en/Publications/WP/Issues/2021/05/01/Will-COVID-19-Affect-Inequality-Evidence-from-Past-Pandemics-50286>.
- IMF (International Monetary Fund) [2021], *Commodity market developments and forecasts*, available at: <https://www.imf.org/en/Research/commodity-prices>.
- Lane, C., Glassman, A. and Smitham, E. [2021], *Using Health Taxes to Support Revenue: An Action Agenda for the IMF and World Bank*, CGD Policy Paper No. 203, Center for Global Development, available at <https://www.cgdev.org/publication/using-health-taxes-support-revenue-action-agenda-imf-and-world-bank>.
- Salisu, A.A., Vo, X.V. and Lawal, A. [2021], *Hedging Oil Price Risk With Gold During COVID-19 Pandemic*, in «Resources Policy», 70, 101897.

The authors

ROBERTO ALIBONI, IAI, Institute for International Affairs (r.aliboni@iai.it).

MARCO ARMIERO, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (armiero@ismed.cnr.it).

GIOVANNI CANITANO, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (canitano@ismed.cnr.it).

SALVATORE CAPASSO, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (capasso@ismed.cnr.it).

FRANCESCA CARUSO, IAI, Institute for International Affairs (f.caruso@iai.it).

IMMACOLATA CARUSO, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (caruso@ismed.cnr.it).

ALEXANDRA D'ANGELO, University of Turin (alexandra.dangelo93@gmail.com).

ANDREA DESSÌ, IAI, Institute for International Affairs (a.dessi@iai.it).

LUISA ERRICHELLO, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (errichiello@ismed.cnr.it).

ANNA MARIA FERRAGINA, University of Salerno (aferragina@unisa.it).

MARCO FERRAZZOLI, CNR, National Research Council, Press Office (marco.ferrazzoli@cnr.it).

CHIARA FERRO, University of Naples Federico II (ch,ferro@studenti.unina.it).

VALERIO FILOSO, University of Naples Federico II (valerio.filoso@unina.it).

LUCA FORTE, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (luca.forte@ismed.cnr.it).

LUIGI GUADALUPI, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (guadalupi@ismed.cnr.it).

STEFANO IANDOLO, University of Salerno (siandolo@unisa.it).

CECILIA MIGALI, CNR, National Research Council, Press Office (cecilia.migali@cnr.it).

DESIRÉE A.L. QUAGLIAROTTI, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (desirée.quagliarotti@ismed.cnr.it).

MARICHELTA SEPE, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (sepe@ismed.cnr.it).

SERENA TARABINI, La Sapienza University of Rome, (serena.tarabini@gmail.com).

SALVO TORRE, University of Catania (salvotorre39@gmail.com).

BRUNO VENDITTO, CNR-ISMed, National Research Council, Institute for Studies on the Mediterranean (venditto@ismed.cnr.it).