Tax and fiscal policy measures in digital transformation era during COVID-19 pandemic: international experiences

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ZAVOD 14
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TAX AND FISCAL POLICY MEASURES IN DIGITAL TRANSFORMATION ERA DURING COVID-19 PANDEMIC: INTERNATIONAL EXPERIENCES

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Graphic Design by www.spotnet.si,
depositphotos.com

ISBN: 978-2-39067-024-7

Published by the European Liberal Forum EUPF with the support of the Friedrich Naumann Foundation and Zavod 14. Co-funded by the European Parliament.

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INTRODUCTORY REMARKS

The outbreak of COVID-19 started in China at the end of 2019, has created an unprecedented challenge with drastic socio-economic consequences. This calls for the introduction of appropriate digitalized tax and fiscal policy measures in order to mitigate the shock from the COVID-19 pandemic and pave the way for a sustainable future. Since the current tax and fiscal policies as well as the supporting information systems are not designed to deal with emergencies such as the COVID-19 pandemic, it is important to consider democratic and liberal ideas to address the current and forthcoming challenges. In order to present key challenges and opportunities in the EU and beyond, the ELF publication is structured in a form of ten chapters presenting country case studies on ongoing issues related to tax and fiscal policy measures in digital transformation era during the COVID-19 pandemic.

The first chapter presents COVID-19 fiscal support and its effectiveness in Austria. It emphasizes that discretionary fiscal policy measures appear to be the key to counteracting the growing inequality and poverty rates. It also indicates marked gender-related disparities in terms of income losses that have been considerably reduced through Austria's tax-benefit system. Hence, reliance on the tax-benefit adjustment mechanism appears to be crucial for redressing the gender disparities that may arise from the uneven income losses because of the pandemic-related disruption. The second chapter presents tax and fiscal policy responses to the COVID pandemic in Germany. It highlights the importance for the mass-vaccination efforts since good public health is a precondition for further economic recovery. Moreover, it suggests that fiscal policy is one of the important mechanisms through which the government ca provide a boost to the economic recovery. Accordingly, it is important to retain a supportive fiscal policy until there is strong indication of a sustained recovery. The third chapter is about understanding and effectiveness of the key fiscal measures in the Netherlands in the time of COVID-19 by providing the following important insights. First, fiscal policy has been playing a fundamental role in mitigating and containing the effects of the pandemic. Second, countries that implemented a larger fiscal support package have indeed experienced smaller contractions of output. Third, coordinated fiscal policy actions have favourably impacted emerging markets through the spillover channel that further reduced the volatility of the financial markets.

The fourth chapter presents tax and fiscal policy response after the COVID-19 pandemic, showing that Italy has been strongly affected by the epidemic, but that, on the whole, it has withstood the blow from an economic and social point of view as a result of the substantial stimulus measures targeting economic recovery. Hence, tax policies will need to support the efficient allocation of capital and other productive factors by encouraging labour market participation, the development of skills and by increasing business investment, productivity growth and diffusion. The fifth chapter presents tax and fiscal policy measures in the digital transformation era of the COVID-19 pandemic in Poland. In response to the pandemic, the Polish government has designed a fiscal support package for businesses and individuals, amounting to moderate size by EU standards. The package was initially economy-wide, but since the second wave of the pandemic it has been limited to businesses in industries most affected by the partial lockdown. The sixth chapter provides evidence from Croatia on tax and fiscal policy measures during the COVID-19 pandemic, highlighting that the main objective of all measures (fiscal and economic) and changes has been to ensure the survival of the most vulnerable sector, i.e. small and medium enterprises, such as hospitality or tourism. Consequently, among the proposed measures, the most popular has been the deferral of payment of corporate income tax or personal income tax and social security contributions. The seventh chapter is about tax and fiscal policy measures in Slovenia in response to the COVID-19 pandemic. It reveals that the measures implemented are comparable to those in other nations, and mostly followed the principles that they should be brief and concentrated on dealing with the epidemic's immediate impacts. Moreover, it emphasizes that the large-scale package has played a major role in absorbing the drop in economic activity and strengthening the revival.

The eighth chapter presents fiscal policy responses to the COVID-19 pandemic in Southern European countries. It shows that the mobilization of public funds to address the pandemic can be used either to maintain the current fiscal and tax systems, the existing state of technology and digital tools' use in the public sphere, as well as of the existing consumption and production patterns, or to provide incentives to change the present consumption and production patterns towards more sustainable models, through the financing of innovation, digitalization, green investments, education and a technological upgrade. The ninth chapter presents experiences from Ethiopia and Croatia on tax and fiscal policy measures in the digital transformation era during the COVID-19 pandemic. It shows that the limited fiscal space means the pandemic has hit Ethiopia harder than Croatia and some specific measures are required to be implemented in Ethiopia. These measures include support in terms of income and liquidity and designing a tax and fiscal policy that benefits everyone. Moreover, the introduction of new tools can also help to narrow the existing gaps between spending and revenue in Ethiopia and Croatia. The tenth chapter is about tax and fiscal policy responses to the COVID-19 pandemic in North Macedonia. It emphasizes that the Macedonian economy has been severely affected by the impact of the measures imposed in the Western Balkan countries and the EU countries in response to the pandemic. However, difficult reforms require huge political and financial investments and extra energy by all, which cannot be realized without starting the accession negotiations with the EU as an incentive for further advancement.

The ELF publication provides the following contributions. First, it provides the understanding of the current state of tax and fiscal policy in the EU in the time of COVID-19 crisis and its implications for the liberal society. Second, it provides the knowledge on efficiency of selected tax and fiscal policy measures derived by international comparison. Third, it provides practically usable tailored guidelines for public authorities, focusing on opportunities for public financial management digital solutions. Given the international experiences, this publication is expected to provide a highly value instrument for evidence-based liberal policymaking in the EU and beyond.

The Editors

Chapter 1

COVID-19 fiscal support and its effectiveness in Austria

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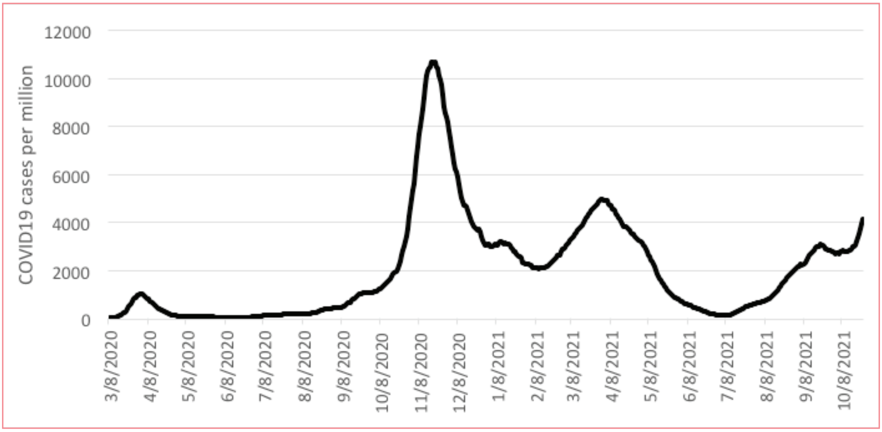
1 Instead of an introduction

The pandemic began in Austria in March 2020, with the country then going into its first lockdown. Then, a piecewise reopening of the economy was subsequently under way, gradually starting in April 2020 as the country reopened its borders. In particular, small shops, construction and garden centres were allowed to reopen while other stores and hairdressing salons could do so at the beginning of May. On 16 June, travel restrictions were lifted for most European countries whilst notable exceptions were the USA, Brazil, India and Russia in adherence with the EU's policy framework. Still, the reopening saw infection rates pick up and daily caseloads grow substantially. Between 3 November and 6 December, the authorities instituted a second lockdown, somewhat milder than the first. Industry and manufacturing especially stayed open while restaurants, bars and non-essential shops as well as schools were closed.

Figure 1 presents the course of the COVID-19 pandemic in Austria measured by the caseload per million inhabitants. The infection curve suggests that Austria underwent a steep but relatively mild first wave of the pandemic, followed by a steep and massive second wave and somewhat milder third wave. By summer 2021, the infection curve had flattened whilst these days a reasonably strong fourth wave is perceivable

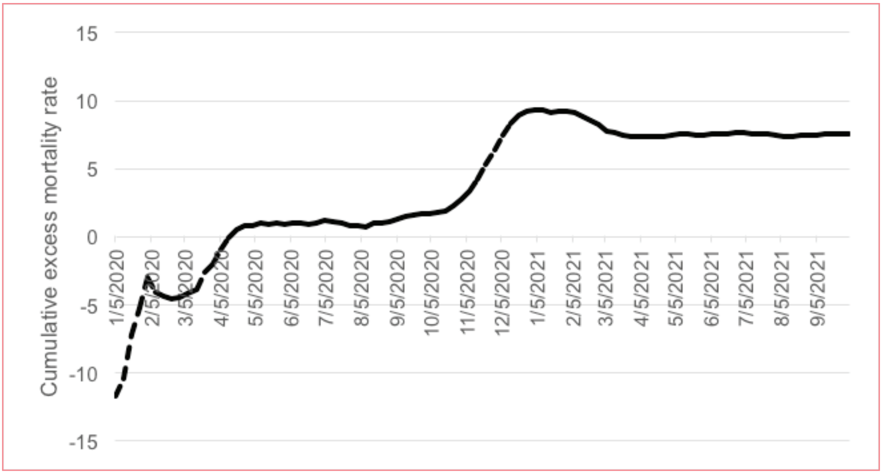
Figure 1: Course of the COVID-19 epidemic in Austria



Source: Coronavirus Resource Center, John Hopkins University, 2021.

Figure 2 plots the daily cumulative excess mortality rate due to COVID-19, and shows the pattern of the epidemic. Note that a zero excess mortality level indicates an approximately null impact of the epidemic with respect to the mortality rate whilst positive and higher values reveal a harsher impact. After the first wave, the excess mortality rate increased considerably and has remained very persistent without any evidence of flattening. The onset of vaccinations against COVID-19 has softened the excess mortality curve, with the mortality rate and its oscillations plateauing. ustria underwent a steep but relatively mild first wave of the pandemic, followed by a steep and massive second wave and somewhat milder third wave. By summer 2021, the infection curve had flattened whilst these days a reasonably strong fourth wave is perceivable.

Figure 2: Cumulative excess mortality rate due to COVID-19 in Austria



Source: Coronavirus Resource Center, John Hopkins University, 2021.

The authorities announced a second lockdown together with the one of the largest fiscal packages in Europe. The stimulating of the economy and jobs was based on an active fiscal policy, expansionary monetary policy and financial support for specific sectors. The IMF (2021) report overviews the key fiscal measures the Austrian government has taken in response to the COVID-19 epidemic since January 2020.

2 Fiscal measures in Austria in the time of COVID-19

Table 1 shows different fiscal support measures which supplement the automatic stabilizers in selected countries (IMF, 2021). The IMF (2021) estimates reveal the global fiscal stimulus put in place to respond to the COVID-19 crisis has amounted to USD 16.9 trillion, heavily concentrated in the advanced economies (85.9%). Emerging and developing economies have accounted for just 13.8% of the global stimulus

The Austrian government is taking unprecedented fiscal measures to combat the virus and avoid its pernicious effect on the economy and society. Its economic stimulus measures focus on sectors heavily affected by the virus outbreak (e.g. tourism, air transport, film and TV production, healthcare, long-term care). Measures for stimulating the economy and preserving jobs are concentrated on firms (e.g. compensation loss, bonuses for new investments, fixed cost subsidy, loan guarantees and warranties, hardship fund for small businesses, subsidy for self-employed), employment (e.g. revenue replacement, short-term work, upskilling and retraining programmes), start-ups (e.g. venture capital, start-up funds) and non-profit organizations (e.g. culture, sport, voluntary fire brigades, religious communities). The fiscal measures also impact the revenue side of the budget (e.g. deferral of personal/corporate income tax and social contributions, tax reliefs, VAT reduction in some categories, reduction of the lowest income tax, duty relief as an exemption on import duties for goods such as protective masks, protective suits, respiratory equipment etc.) (IMF, 2021; ILO, 2021).

Table 1: Summary of fiscal measures in response to the COVID-19 pandemic since January 2020 in selected countries

	Additional spending or foregone revenues			Contingent liabilities			
	Subtotal	Health	Non-health	Subtotal	Equity injections, asset purchases, loans	Guaran-tees	Quasi-fiscal opera-tions
EU	3.8	0.0	3.8	6.7	6.1	0.6	
France	9.6	1.5	8.2	15.2	0.7	14.5	
Germany	15.3	1.8	13.6	27.8	3.0	24.8	
Italy	10.9	1.2	9.7	35.3	0.2	35.1	
Japan	16.7	2.1	14.6	28.3		2.9	25.4
UK	19.3	4.8	14.4	16.7	0.0	16.7	
USA	25.5	3.3	22.2	2.5	0.3	2.2	
Austria	**15.2**	**1.8**	**13.4**	**2.8**		**2.8**	
Belgium	8.2	2.1	6.1	11.9	0.4	11.5	
Czech Republic	9.2	2.6	6.6	15.5	0.0	15.5	
Malta	10.7	1.0	9.7	6.0		6.0	
Cyprus	8.3	0.8	7.5	9.2	1.9	7.3	
Latvia	10.6	2.0	8.6	2.0	0.8	1.2	
Denmark	3.4		3.4	15.6	12.1	3.5	
Greece	17.5	0.8	16.7	3.7	2.0	1.7	
Ireland	11.5	1.1	10.3	2.7	1.3	1.3	
Luxembourg	4.2	0.5	3.7	5.8	0.6	3.9	1.4
Netherlands	10.3	2.1	8.2	4.3		4.3	
Slovenia	9.4	0.8	8.6	6.6	1.9	4.7	
Slovak Republic	5.9	1.2	4.7	1.7	0.0	1.7	
Sweden	4.2	0.8	3.4	5.3	0.2	5.0	
Global	10.2	1.4	8.6	6.2	0.4	4.1	1.6

Source: Coronavirus Resource Center, John Hopkins University, 2021.

The Austrian government's discretionary fiscal response to the COVID-19 crisis amounted to 18% of GDP in 2020. Compared to other EU countries, Austria spent substantially more on the health and non-health sector (15.2% GDP) and much less on loans, equity injections, asset purchases, and guarantees (2.8% GDP). In the EU, only Greece (17.5%) and Germany (15.3%) have spent more on the health and non-health sector than Austria. On the other hand, the Austrian government has merely 2.8% spent of GDP on loans, equity injections, asset purchases, and guarantees, placing Austria at the bottom of the EU. Behind Austria are only Ireland (2.7%), Latvia (2%) and Slovakia (1.7%). The two countries with the highest contingent liabilities are Italy (35.3%) and Germany (25.7%), with the EU average being 6.7% (IMF, 2021).

The Austrian government's discretionary fiscal response to the COVID-19 crisis amounted to 18% of GDP in 2020.

Altogether, for the different measures (above the line, below the line) Austria spent 18.1% of its GDP, well above the EU average of 10.5%. Compared to more advanced G20 countries, Austria is far below the USA (27.9%), Japan (45%) and the UK (36%). Less developed G20 countries spent on average much less (Argentina 7.9%. Brazil 15.4%, China 6.1%, India 10.3%). The overall discretionary fiscal response to the COVID-19 crisis in Austria is similar to the global average (16.4% of GDP) and exceeds the EU average (10.5%).

A similar fiscal response to Austria (18%) has been seen within the EU by Belgium (20.1%), Slovenia (16%), Malta (16.7%) and Cyprus (17.6%) (IMF, 2021). This is not surprising since these countries have a similar complementarity and hierarchy of institutions (Amable, 2003). Fiscal measures always vary regarding the importance of the welfare state in a particular public policy and society. As such, all of these countries belong to the continental model of capitalism, as an intermediate between the market-based and social-democratic models, with very similar institutions in the labour market.

The fiscal packages have been supplemented with the active monetary intervention of the ECB and the Austrian Central Bank as an asset purchase programme of private and public sector securities, more favourable terms for refinancing operations, and a more flexible interpretation of the Pillar Guidance and classification requirements for NPLs (IMF, 2021). The Oesterreichische national bank (the central bank) ensured the supply of sufficient cash for banks, ATM operators and the economy in response to increased withdrawals.

3 Efficiency of the fiscal measures and fiscal impact of the pandemic in Austria

In general, as economists, we value the success of the whole economy with respect to levels of growth, unemployment and inflation. The labour market shock created by the COVID-19 pandemic is difficult to assess by benchmarking since the situation is unique by having completely halted the economy.

Globally, the labour market's recovery from the pandemic shock has stalled during 2021, with little progress being made since the fourth quarter of 2020. Global working hours in 2021 are estimated to remain significantly below the level seen in the last quarter of 2019, and be at the level of −4.7% (137 million full-time jobs) in the third quarter of this year (ILO, 2021).

Table 2: Working hours lost due to the COVID-19 crisis – ILO-modelled estimates (%)

Country / Region	Time	Working hours lost due to the COVID-19 crisis compared to 4th quarter 2019 (%)	Country / Region	Time	Working hours lost due to the COVID-19 crisis compared to 4th quarter 2019 (%)
World: low income	2020	6.7	Austria	2020	12.3
World: low income	2020	6.7	Austria	2020	12.3
World: upper middle	2020	7.2	EU	2020	7.9
World: upper middle	2021	2.2	EU	2021	7.4

Source: ILO monitor, 2021.

The indicator shown in Table 2 presents the percentage of hours lost compared to the baseline (the latest pre-crisis quarter, 4th quarter of 2019). Working hours in high- and upper-middle-income countries (like Austria) tended to recover faster, while in low-income countries continued to suffer large losses in this respect (ILO, 2021). Lost working hours due to the COVID-19 crisis have also been recovered faster in Austria than on average in the EU.

Due to labour market disruptions caused by the pandemic, the Austrian government launched a large fiscal stimulus programme. Especially important here are measures aimed at supporting enterprises, employment, incomes and protecting workers. The Austrian government's stimulus programme focuses on employment-related measures such as compensation schemes, trainings, new short-time-work model, funding subjects in financial distress and affected by the lockdowns (e.g. self-employed, individual entrepreneurs, micro enterprise). A large part of the programme concentrates on protecting enterprises (e.g. loan guarantees for SMEs, access to state aid schemes, guarantees for loans for up to 100% of fixed costs, subsidies, a special guarantee scheme for exporting companies, support for new business) (IMF, 2021; ILO, 2021).

On average, a 1% of annual GDP increase in fiscal stimulus is associated with a 0.3 percentage point increase in working hours relative to the last quarter of 2019 in annualized terms (ILO, 2021). Obviously, the stimulus programme has a very significant impact on the labour market in Austria due to the working hours (not) lost. However, the uneven impacts of the pandemic across workers, sectors and regions demand more targeted measures (e.g. language training, hiring subsidies, re-allocation grants) to support reallocation and address regional and skill mismatches. Inability to provide high levels of fiscal support in the case of a limited fiscal space would undoubtedly adversely impact the recovery process in Austria. The premature withdrawal of the fiscal support would also bring the risk of a slower labour market recovery.

In containing the pandemic's economic impact, the Austrian government released one of the biggest multi-year fiscal stimulus schemes in Europe. These stimulus measures were primarily introduced to support the economy, combat the losses, stimulate the healthcare system's capacity and reduce tax rates to offset the income losses at the start of the pandemic. For instance, the reduction of the lowest income tax rate from 25% to 20% in 2021 was back-dated to January 2020. The multi-year fiscal package also includes rapid measures to reignite the economy through investment and climate protection, affordable housing, health, digitalization, and innovation and research.

By the end of the 2020 fiscal year, the bulk of expenditure was connected with the emergency support, which led to a budget deficit of almost 9% of GDP. Following subsequent lockdowns and waves of infections, the initial measures were revisited to include the new phased short-term work arrangements, fixed cost subsidies, a hardship fund for small businesses in distress, unemployment compensation and revenue replacement. Additional measures included greater public investment as well as tax incentives for private investment to boost the post-pandemic economic recovery. Alongside this, measures to reallocate labour through upskilling and job retraining were introduced.

All of these measures are expected to result in a budget deficit of over 8% of GDP. Table 3 presents the forecasted post-pandemic macroeconomic indicators for Austria until 2026, based on the recent edition of World Economic Outlook by the International Monetary Fund. A comparison of these indicators suggests Austria is characterized by increasing public debt-to-GDP ratios, which tend to stabilize by 2022 and exhibit a gradual drop afterwards.

Compared to the advanced economies, Austria tends to have a favourable evolution of its debt-to-GDP ratio without excessive leverage compared to the size of its GDP. This relatively favourable path is further bolstered by the fact that the structural fiscal imbalance is set to fizzle out in the upcoming years under the reasonable assumptions of the predicted annual growth rates. In this respect, the Austrian economy is expected to undergo a relatively rapid

By the end of the 2020 fiscal year, the bulk of expenditure was connected with the emergency support, which led to a budget deficit of almost 9% of GDP.

economic recovery with annual growth rates of around 4% in 2022. Its growth rates tend to stabilize around the 2% threshold by 2023 and then remain stable there. Further, compared to the advanced economies, the unemployment rate in Austria is considerably lower and anticipated to reach its pre-pandemic levels by 2026.

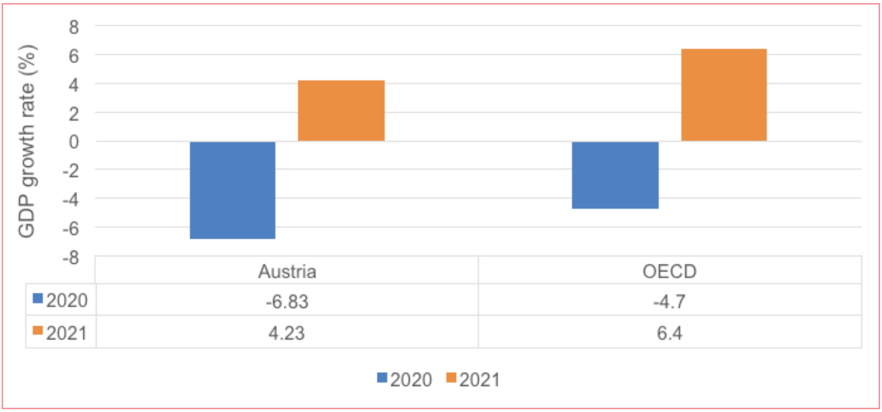
Table 3: Forecasts of selected post-pandemic macroeconomic indicators

	2020	2021	2022	2023	2024	2025	2026
Panel A: General government debt/GDP ratio							
Austria	83.1	84.2	81.05	79.79	77.96	76.11	72.20
Advanced economies	122.7	121.6	119.3	119.3	119.1	118.8	118.6
Panel B: General government structural balance (% GDP)							
Austria	-6.2	-4.8	-2.7	-1.6	-0.7	-1.0	-1.1
Advanced economies	-7.4	-7.0	-5.3	n/a	n/a	n/a	n/a
Panel C: GDP growth rate (%)							
Austria	-6.2	3.9	4.5	2.1	2.0	2.0	1.8
Advanced economies	-4.5	5.2	4.5	2.2	1.7	1.6	1.6
Panel D: Unemployment rate (%)							
Austria	5.4	6.4	6.0	5.5	5.3	5.2	5.0
Advanced economies	6.6	5.8	5.0	4.7	4.6	4.6	4.7

Source: Policy Responses to COVID-19, International Monetary Fund, 2021.

Figure 3 compares GDP growth rates before and after the pandemic between Austria and the OECD. One may see that Austria's GDP declined by more than 1 percentage point compared to the OECD during the pandemic followed by a more than two percentage points slower rate of recovery.

Figure 3: GDP growth pre- and post-pandemic in Austria and the OECD



Source: OECD COVID-19 Recovery Dashboard, 2021.

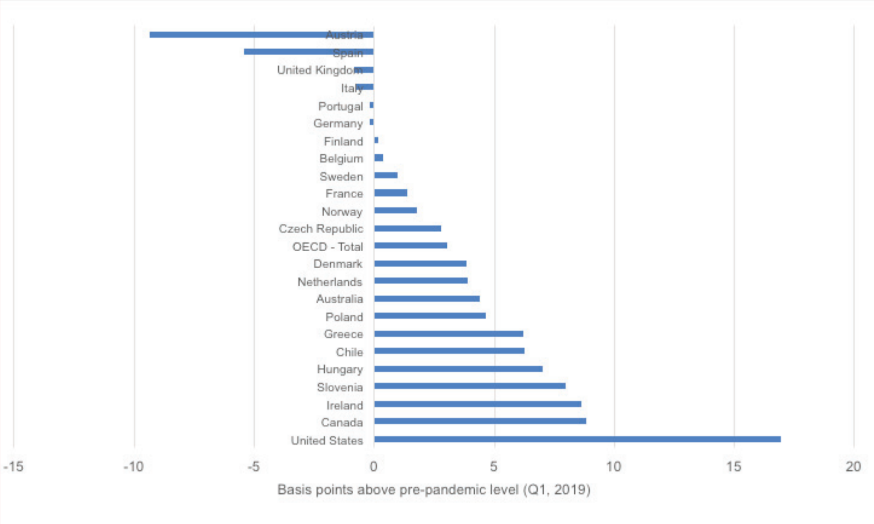
This comparison starkly suggests that Austria has been both hit disproportionately hard by the pandemic and has also lagged behind other OECD countries in the speed of its recovery. The slow growth rate might indicate that economic losses brought by the COVID-19 pandemic have still not been fully absorbed. The pandemic's general impact on the economic prosperity of households and businesses suggests the revival of economic activity in Austria since the initial waves of the pandemic has been quite slow.

Figure 4 presents the relative change in

In 2021, the income of the average household in Austria is almost 10 percentage points below the pre-pandemic level.

household disposable income in 2021 compared to the pre-pandemic level. The figure shows both positive and negative values of the index. Positive values indicate rising household disposable income that has already reached the pre-pandemic levels. By contrast, negative values imply the average household income still lags behind the pre-pandemic levels. The comparison reveals that Austria performs quite dismally compared to other OECD countries. In 2021, the income of the average household in Austria is almost 10 percentage points below the pre-pandemic level. Together with Spain, the United Kingdom and Italy, the drop in income is both considerable and disproportionate compared to the rest of the OECD where household income has been recovering fast. In contrast, household income in the USA in 2021 is about 16 percentage points above pre-pandemic levels followed by Canada, Ireland and Slovenia, where noticeably larger increases in household income can be seen.

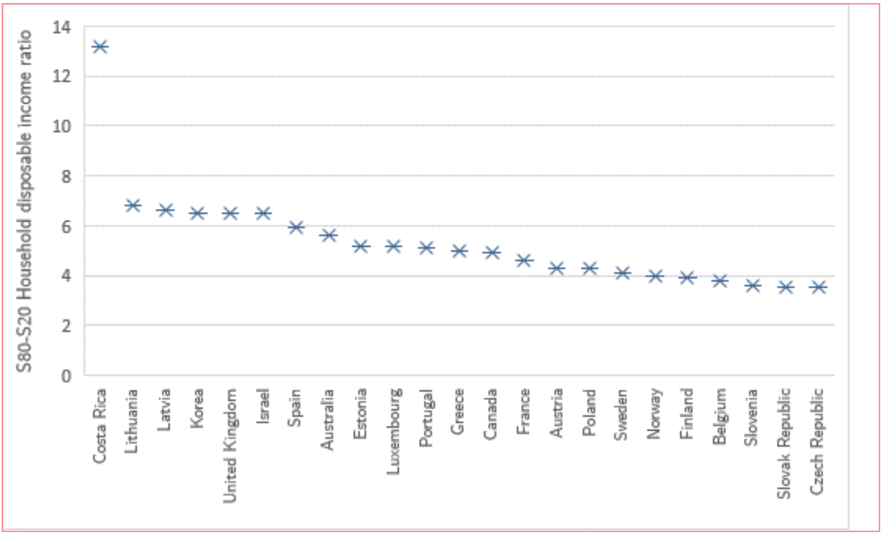
Figure 4: Household disposable income after the first waves of the pandemic



OECD COVID-19 Recovery Dashboard, 2021.

A reasonably solid indicator of the pandemic's impact is the extent to which the most vulnerable members of society have been affected by the COVID-19 crisis. If the efforts to rebuild better, more effectively and with more inclusive economic opportunities for all are thwarted by rising inequality, a more inclusive growth trajectory might turn out to be an illusion. Figure 5 shows the pattern of income inequality across OECD countries. More specifically, it plots the ratio of household income between the upper quantile (i.e. the top 20% of households with the highest incomes) and the lowest one (i.e. the bottom 20% of households with the lowest incomes). A high value of the index characterizes a less inclusive, weaker and more fragile effort to provide broad-based, participatory and inclusive economic opportunities. Countries with the highest index values are Costa Rica, Lithuania and Latvia followed by South Korea and the United Kingdom. Austria's rank is comparable to the OECD average as the richest 20% of households earn about four times as much as the poorest 20% of households. The lowest ratios are found in Belgium, Slovenia, Slovak Republic and Czechia.

Figure 5: Income inequality across OECD countries



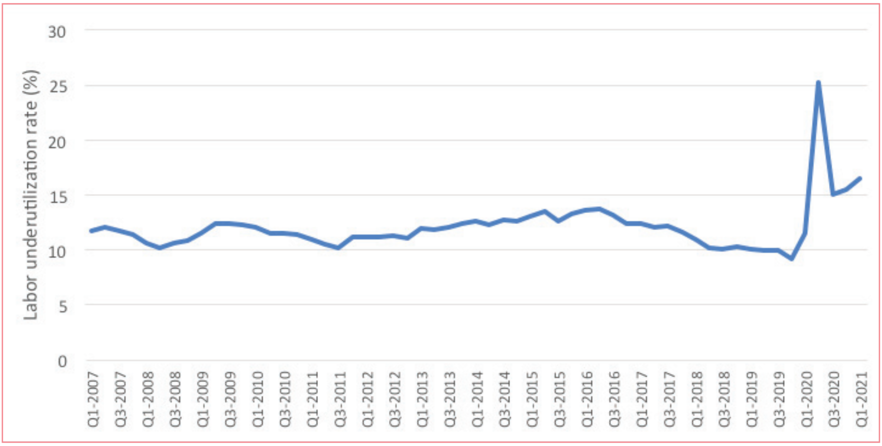
Source: OECD COVID-19 Recovery Dashboard, 2021.

Another telling measure of the economic resilience after the first waves of the pandemic is the rate of labour underutilization. In particular, societies with high levels of unemployment are seldom likely to move towards a more inclusive and fairer economic growth trajectory. If the

COVID-19 pandemic triggers a temporary impact, the rate of labour underutilization would be initially higher in response to the pandemic and then gradually move to the level before the pandemic. By contrast, if the pandemic produces a permanent shock, unemployment and the labour underutilization rate might only slowly or not at all move back to the pre-pandemic level.

Figure 6 reports the quarterly labour underutilization rate for Austria from 2007 onwards. Such underutilization comprises unemployed, discouraged and underemployed workers. The evidence points to a relatively stable trajectory until 2016. Afterwards, the underutilization rate exhibits a persistent and quite strong decline to the level below 10% before the onset of the pandemic. During the pandemic, the rate increases to 25%, indicating that one in four Austrians was either unemployed, discouraged or under-employed. By the third quarter of 2020, the underutilization rate drops considerably whilst the second lockdown in the midst of the rapidly spreading Delta variant has further increased the underutilization of labour. This underutilization could be further prolonged by the relatively slow progress in vaccinating the population against COVID-19. If full vaccination against COVID-19 becomes a new policy norm in the labour market, the high rate of unemployment or under-employment may well persist in the years after the pandemic.

Figure 6: Unemployed, discouraged workers and underemployed workers in Austria



Source: OECD COVID-19 Recovery Dashboard, 2021.

4 Building COVID-19 partnerships

To successfully address and integrate the COVID-19 crisis, a whole-of-government approach is called for with clear top-down commitment. However, governments cannot and should not act alone. In our interconnected world we are all responsible for the successful implementation of the strategies and policies. This means government partnerships with external stakeholders, such as health institutions, local communities, business community, unions, consumers, professional associations and NGOs, are essential in the fight against COVID-19. A top-down and integrated approach is key. Such an approach increases awareness among politicians and all stakeholders by promoting policy coherence, resolving possible conflicts and enabling prompt communication.

A precondition for successful implementation of the resilience strategy is trust in the government. People's trust in their government is an indication of broader resilience. Collective action cannot be achieved efficiently without people trusting their representatives. For example, in recent weeks, as Europe has again become the global epicentre of the pandemic, deaths have mainly continued to grow in Eastern Europe. In the EU, 75.6% of citizens are fully vaccinated, as against 26% in Bulgaria, 39% in Romania, 20% in Ukraine and 36% in Russia. What is so different with Eastern Europe? The low level of public trust that distinguishes Eastern Europe is a legacy of communism, the deep transitional recessions, and the failure of the post-communist governments to mitigate the effects (Ghodsee, Orenstein, 2021). Between 1990 and 2013, trust in political institutions in Central and Eastern Europe was cut in half.

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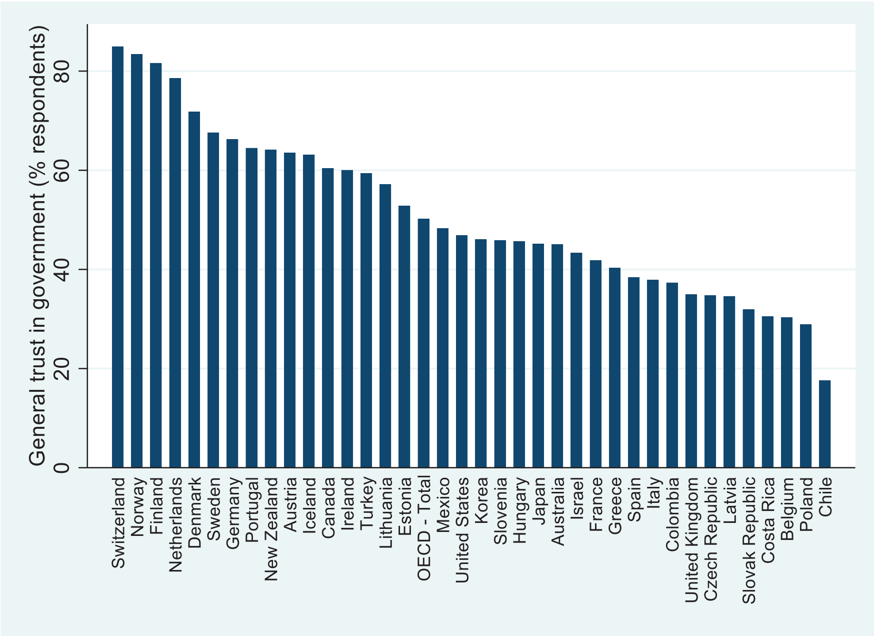
Is Austrian society becoming more resilient in order to better confront future risks? According to the OECD (2021), trust in the government (government, parliament, courts, army, police) is a vital indicator of resilience besides the COVID vaccination rate and level of public debt. Cross-national differences in government trust are show in detail in Figure 7 (OECD, 2021). The indicator presents the share of people reporting they have confidence in the national government based on a question in the Gallup World Poll for OECD countries.

Figure 7: Comparison of Austria with the OECD (% of population reporting they have confidence in the national government in %)



Source: Own elaboration based on secondary data.

The level of general trust in government in Austria is among the highest in the OECD, and comparable with countries like Germany, New Zealand, Portugal, Sweden and Denmark, which all tend to have more than 60% of the citizens trusting their governments. The highest levels of trust are seen in Switzerland, Norway and Finland, all above 80%. By contrast, the lowest rates of trust in the OECD are found in Chile, Poland, Belgium and Costa Rica.

Despite the COVID-19 pandemic which has set back general trust in government and public institutions, Austria tends to have a considerably large share of citizens seeing the government as trustworthy. This is a precondition for policymakers in Austria to build back to a better society after the COVID-19 period.

Discretionary fiscal policy measures appear to be the key to counteracting the growing inequality and poverty rates.

5 Instead of a conclusion

Existing empirical evidence for evaluating the fiscal policy recommendations to combat the pandemic's economic losses in Austria is relatively scarce. One notable exception is an analysis of the COVID-19 pandemic's impact on household income by Christl et al. (2021). Using detailed administrative labour market data together with micro-simulation techniques, they analysed the COVID-19 crisis' impact on household income. Their findings suggest that discretionary fiscal policy measures appear to be the key to counteracting the growing inequality and poverty rates. Their findings also indicate marked gender-related disparities in terms of income losses that have been considerably reduced through Austria's tax-benefit system. The latter has eventually led to males and females on average suffering a 1% loss in income. However, males benefit disproportionately from the short-time work scheme whereas females benefit mainly from the discretionary policy measures such as payments for children.

Hence, reliance on the tax-benefit adjustment mechanism appears to be crucial for redressing the gender disparities that may arise from the uneven income losses because of the pandemic-related disruption. On the other hand, discretionary measures that supplement income, particularly in sectors hit most by the pandemic like tourism and hospitality management, seem to be costly but nevertheless effective in mitigating the losses arising from the pandemic. Therefore, whilst ever the pre-pandemic levels of employment and GDP have still not been reached, such discretionary fiscal measures should be kept in place. Higher growth rates in response to these measures in the following years should further improve the fiscal sustainability of public finance whilst reinforcing the improvement of both service-based sectors and industrial production.

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Chapter 2

Tax and fiscal policy responses to the COVID-19 pandemic: The experience of Germany

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1 Introduction

The COVID-19 pandemic caused by the novel coronavirus SARS-CoV-2 has created an unprecedented challenge with drastic socio-economic consequences for which governments have had no benchmark or previous experience to rely on (IMAD, 2020a; IMAD, 2020b; SIGMA, 2020). The pandemic supposedly emerged in China at the end of 2019 and started to spread rapidly across the world including European Union (EU) countries and in early March 2020, when the number of confirmed new cases of COVID-19 exceeded that of China, the World Health Organization (WHO) labelled the EU the active centre of the pandemic (Nebehay, 2020). Due to ever worse COVID-19 situation, on 11 March 2020 the WHO declared the COVID-19 outbreak a global pandemic (Cucinotta & Vanelli, 2020; WHO, 2020). The outbreak of COVID-19 is a typical public health emergency. Its high infection rate makes it a huge threat to global public health

(Bogoch et al., 2020; Lin et al., 2020; Wu et al., 2020). However, its rapid spread has not only affected the lives of many people around the world, but also disrupted the pattern of economic and social development, leading to incalculable social and economic losses (Gao & Yu, 2020). Accordingly, EU countries have faced several challenges primarily concerning health but also social and economic issues (European Commission, 2021). International institutions have therefore announced that the global economy is now in a recession – as bad or worse than during the global financial crisis of 2009, arguing this recession will affect both developed and developing countries (IMF, 2020; OECD, 2020).

To mitigate the COVID-19 pandemic governments have taken a range of approaches.

Recent evidence from different countries around the world shows that to mitigate the COVID-19 pandemic governments have taken a range of approaches (Baldwin & di Mauro, 2020; Hale et al., 2020; United Nations, 2020), from a soft/passive approach based on herd immunity to a hard/forceful approach like aggressive lockdowns to an agile/adaptive approach, and policy instruments (testing, tracking, treatment, quarantine, public information campaigns, app-based information sharing, social distancing, lockdowns etc.) (Buthe et al., 2020; Fernandes, 2020). After certain EU countries failed in their initial mitigation efforts, they gradually shifted from a soft and reactive approach to a hard and more aggressive approach, which proved not to be ideal (Gao & Yu, 2020). Moreover, governments have announced additional fiscal measures (D'Acunto, 2020; Fornaro & Wolf, 2020; Hepburn et al., 2020; McKibbin & Fernando, 2020), including broad-based tax relief, wage subsidies, unemployment benefits, the deferment of utility bills and rent payments, mortgage relief, lump-sum payments to households, loans and loan guarantees to businesses, as well as equity investments by governments in distressed companies.

The COVID-19 pandemic is one of the most serious challenges in Germany's history. The COVID-19 pandemic has caused a significant deterioration of public finances, adding to pre-existing strains arising from long-term structural challenges including population ageing, climate change, rising inequality, digitalization and automation (OECD, 2021a). Consequently, the federal government in Germany responded in such a way that put the focus primarily on mitigating the health, social and economic impacts of the pandemic in a quick, resolute and targeted way by providing considerable support through its fiscal policy. For example, it is combining short-term assistance programmes to stabilize the economy with targeted investments to help overcome the coronavirus crisis. All of these measures lay the foundations for strong and sustainable economic growth after the coronavirus crisis ends and will thus ensure the continuation of sound fiscal policy (Federal Ministry of Finance, 2021). Accordingly, the main aim of this chapter is to present the tax and fiscal policy responses to the COVID-19 pandemic in Germany and it is organized as follows. After the introduction, which describes the addressed topic in a broader way, the second section presents the economic stance in Germany during the pandemic. The third section outlines the fiscal response to the COVID-19 pandemic in Germany. Then, the fourth section provides some policy recommendations for an inclusive recovery. Finally, the chapter ends with a conclusion in which the main observations are summarized.

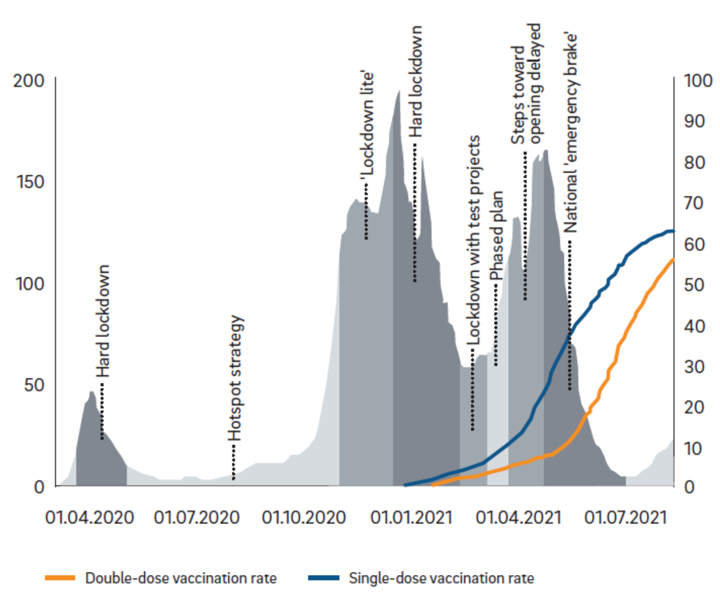
2 The economic stance in Germany during the COVID-19 pandemic

The COVID-19 pandemic has been the dominant narrative over the past year and a half. This not only applies to public health matters, but the economic situation as well. In Germany, the first case of COVID-19 infection was confirmed on 27 January 2020. Since then, Germany has faced three pandemic waves with approximately 4 million being infected, and nearly 100,000 deaths. As a first response to the aggravated COVID-19 situation, the government introduced lockdowns of varying severity and a wide range of restriction measures (i.e., border closures, closure of schools and non-essential businesses, social-distancing requirements, enforcement of mask-wearing, a ban on public gatherings etc.) (Covinform, 2021; IMF, 2021a). Germany managed the first wave of the pandemic relatively well, especially due to an early and vigorous public health response. The progressive lifting of the restrictive measures since late April 2020 has resulted in the partial revival of economic growth, yet further economic development has been hampered by the introduction of a 'lockdown lite' in late October 2020 aiming at combatting a new wave of the pandemic, also known as the second wave, whereby the restrictions were further strengthened in mid December 2020 (IMF, 2021b). Despite some projections that the

Germany managed the first wave of the pandemic relatively well, especially due to an early and vigorous public health response.

German economy would recover during the 2021 based on the mass-vaccination efforts (Caceres et al., 2021), the pandemic's third wave has shattered the optimistic hopes for a full economic recovery. The chief reason for that can be found in the delay of planned steps toward opening up the economy in the spring of 2021 and the ongoing restrictive measures, which did not finish until the summer of 2021. During the summer of 2021, the COVID-19 situation was better, especially due to the lower seasonal infection rate and vaccination campaigns (see Figure 1) (Roland Berger, 2021). However, the new Delta strain of the novel coronavirus has pushed infection rates up and Germany thus finds itself in the grip of a fourth wave of the pandemic. The severity of the COVID-19 situation during this fourth wave is confirmed by the fact that Germany recorded a staggering 50,196 new infections on 11 November 2021, the highest count since the pandemic started. Experts cite the following five reasons for this rise in infections: 1) the effect of the unvaccinated; 2) waning immunity; 3) fewer contact restrictions; 4) the Delta variant is more infectious; and 5) the seasonal effect (Deutsche Welle, 2021).

Figure 1: Incidence (left axis) and vaccination (right axis) in Germany



Note: Data obtained from Johns Hopkins University on 11 August 2021
Source: Roland Berger, 2021.

Therefore, it is not surprising that the still-recovering German economy loses steam over the winter semester. This is especially due to the ongoing precautionary anti-infection measures to ease the pandemic's fourth wave and the supply-chain bottlenecks, which postponed the final spurt in the catch-up process to 2022. Taking the period 2020–2022 into account, it is estimated the COVID-19 crisis will cost the German economy about EUR 320 billion in terms of economic output loss. Further, the bottlenecks in the supply chain are expected to reduce value added in the manufacturing sector by more than EUR 40 billion in 2021, albeit much of that will be recovered once the bottlenecks are overcome. Due to the presented challenges, the German economy is not likely to recover to the pre-crisis level until the first quarter of 2022, which is half a year later than initially anticipated. It is expected that production capacities will be utilized normally again by mid 2022. As a result of the stronger momentum expected in the coming year, Germany will presumably achieve the level of economic activity of the pre-crisis period during 2022 (Kiel Institute, 2021a).

As highlighted, the German economy requires more time to recover from the pandemic crisis. The ongoing preventive measures to contain infections as well as the bottlenecks in the supply chain will slow the economic recovery process down during winter. The economic recovery is expected to be slowed especially in those service sectors hit particularly hard by the pandemic. Further, bottlenecks on the supply side and will most likely diminish only gradually. Once the economic burdens of the pandemic and the supply bottlenecks have eased in the spring of 2022, the recovery will regain strength and economic activity will normalize quickly. It is expected that GDP will rise by 2.6% in 2021, recouping just a portion of the losses incurred in 2020, when it fell by 4.6%. The effects of the recovery bill become fully visible in the anticipated 2022 growth rate of 5.1%. Further, GDP is predicted to grow by 2.3% in 2023, as some of the previously lost economic activity will be recovered (see Figure 2) (Kiel Institute, 2021b).

Figure 2: GDP in Germany, 2008–2023

Note: Change year-on-year (price adjusted change in %)
Source: Kiel Institute, 2021a.

Table 1 shows the key macroeconomic indicators for Germany, revealing the general economic stance in Germany during the COVID-19 pandemic and beyond. Private consumption is predicted to rise at a rate of almost 8% next year, which is the sturdiest growth in recent economic history. During the pandemic, more than EUR 200 billion in purchasing power has been accumulated, adding to the already expansionary return to normal consumption patterns. In 2021, consumer prices are rising at a rate of 2.9% annually, especially due to temporary factors, namely, the highest rate in almost 30 years, with inflation expected to reach 4.0% in the second half of the year. Several specific factors are expected to fade out in 2022, yet inflationary pressure will only gradually subside, and the inflation rate will not fall below 2.0% until 2023. Although the slowing of the catch-up process will temporarily slow job creation, the overall picture of the labour market indicates quite a quick rebound from the pandemic crisis. Namely, the pandemic's negative impact on the labour market will be mitigated in 2022. However, considering the demographic trends, the economically active population will reach its peak in 2023 and the labour force will begin to shrink dramatically year by year after then. The unemployment rate is moreover predicted to fall from 5.7% in 2021 to 5.3% in 2022, while for 2023 it is expected to fall further to 5.1%, which is almost as low as the pre-crisis level. It is also expected that the manufacturing sector will recover in 2022. Something similar holds for exports and investment, which may also pick up more strongly again in 2022. Exports are also expected to grow at rates of 8.1% in 2021 and 5.8% and 4.2% in 2022 and 2023, respectively. Finally, corporate investment is expected to increase by 6.2% and 4.6% in 2022 and 2023, respectively, following 3.1% in 2021 (Kiel Institute, 2021a).

The recovery from the COVID-19 crisis will also be reflected in the federal public budget. In 2021, the fiscal deficit will rise again from EUR 145 billion to EUR 173 billion (4.9% of GDP). The biggest reason is that most aid funds and subsidies for supporting the economy during the pandemic will only flow or be called up in 2021. From 2022 on, government budgets will begin to recover from the impact of the pandemic. During the recovery, government revenues will rise, and extra funds will also flow in from the 'Next Generation EU' programme. Later, the deficit will shrink to EUR 60 billion in 2022 (1.7% of GDP) and to just under EUR 30 billion in 2023 (0.7% of GDP). On the contrary, social security funds are expected to face increasing challenges and the tax burden will rise (Kiel Institute, 2021a).

Table 1: Key indicators in Germany, 2020–2023

Key indicators	2020	2021	2022	2023
Gross domestic product (GDP), price adjusted	-4.6	2.6	5.1	2.3
Gross domestic product, deflator[1]	1.6	2.0	1.6	1.9
Consumer prices[1]	0.5	2.9	2.6	1.9
Labour productivity (per hour worked)	0.4	0.8	2.0	1.6
Employment (million)[2]	44.9	44.9	45.4	45.7
Unemployment rate (%)	5.9	5.7	5.3	5.1
Public sector net lending (% of nominal GDP)	-4.3	-4.9	-1.7	-0.7
Gross public debt (% of nominal GDP)	69.1	70.9	67.4	64.5
Current account balance (% of nominal GDP)	6.9	6.6	5.8	5.7

Source: Kiel Institute, 2021a.

1 Percentage change on previous year.
2 As defined by the Federal Employment Agency.

The sustained normalization of social life and business conditions leading to a stronger economic performance is also expected for the euro area. This is supported by expectations that GDP will rise by 5.1% in 2021, followed by 4.4% in 2022 and 2.4% in 2023. Due to numerous temporary factors and base effects, consumer prices are expected to rise quite strongly by 2.2% in 2021. In later years, inflation is expected to be below the European Central Bank's inflation target again at 1.8% and 1.7% in 2022 and 2023, respectively. The momentum of the global economy also slowed considerably during the first half of 2021 because of the new COVID-19 surges and supply chain issues, yet the robust increasing trend continues. Global output is predicted to rise by 5.7% in 2021 and by 5.0% in 2022. Economic activity on the global level is also predicted to increase quite strongly again in 2023 to 3.8% (Kiel Institute 2021a).

Accordingly, several opportunities and risks for the German economy can be identified. The opportunities are as follows: 1) the pent-up demand for leisure activities and consumer goods adds stimulus; 2) the abundant liquidity in the market averts fears of a credit squeeze; 3) the domestic boom is being fuelled by well-filled order books in Germany; and 4) uptake of the vaccination will ensure greater control over the infection process. On the other hand, the risks are the following: 1) virus mutations continue to be a possible game-changer; 2) heavy indebtedness is adding to the threat of 'zombified' companies; 3) rising energy costs are increasingly putting pressure on the corporate sector; and 4) the shortage of intermediate products will cause further production deficiencies (Roland Berger, 2021).

The COVID-19 pandemic has exposed digitalization, new technologies and digital business models as the major building blocks of economies. The dependence on these technologies will also become more prominent in the post-pandemic era, highlighting their importance across entire industries for ensuring business continuity. Further, tax administrations are not immune to the digital shift. For them, digitalization is not just about tax but also modernization, and they are actively engaged in the long and involved digital transformation process to embrace the challenges and opportunities that lie ahead (Teillant et al., 2021).

The dependence on these technologies will also become more prominent in the post-pandemic era.

3 Fiscal response to the COVID-19 pandemic in Germany

The outbreak of the COVID-19 pandemic has triggered the largest public health crisis with severe economic consequences that is likely to overshadow the financial crisis of 2007–2008. Specifically, Germany is faced by its biggest drop in GDP since World War II (Dorn et al., 2020). The fiscal response to the COVID-19 pandemic was extraordinarily robust to reduce the social and economic consequences of the crisis and lay the grounds for the recovery. Emergency measures were subsequently supplemented by recovery programmes aimed at boosting long-term economic growth (Baudchon & Bouvry, 2021). Accordingly, the large-scale impact of the crisis as well as the measures implemented to contain the virus are the greatest challenge for the German economy. Well-designed fiscal policy measures must therefore be implemented to mitigate the negative consequences of the pandemic (Dorn et al., 2020).

The federal government has adopted three supplementary budgets to deal with the COVID-19 crisis and subsequently support the economic recovery (IMF, 2021a). The first fiscal package, also referred to as the protective-shield package, was adopted in March 2020 and amounted to EUR 156 billion (4.5% of GDP), was oriented to financing additional spending and covering the lower revenues. In the initial phase of the pandemic, the federal government primarily focused on protecting public health. Early measures were therefore oriented to solving health challenges. Early measures thus refer to spending on healthcare equipment and protective gear, providing financial support to hospitals with the need to ensure sufficient capacity, and funding the vaccine research and development. Moreover, some measures were put in place to help enterprises with their liquidity. Several grants were provided to small-business owners and self-employed persons to cover operating costs. The national development bank KfW also ensured an unlimited credit supply through new and existing programmes, while government loan guarantees were expanded. Further, for larger enterprises, an economic stabilization fund was established to provide support for equity injections, guarantees for corporate liabilities and a credit authorization to the national development bank KfW for refinancing purposes. The supplementary budget also led to an increase of the guarantee framework. Additional assistance was offered via tax deferrals and temporary suspensions of the obligation to file for insolvency (IMF, 2021a; OECD, 2021b).

To preserve employment, the actual short-time work scheme was expanded by lowering the eligibility thresholds (also for temporary/ agency workers), the labour agency reimbursing social security contributions, increasing wage replacement rates after more than 3 months, and removing restrictions on second jobs. In addition, some measures for households contained extended benefits for unemployment, facilitated access to social and child benefits, and an eviction ban for tenants. Measures which interfered with the labour market, particularly short-time work, were widely used. Yet, by mid September 2020 there had been little call for equity injections under the stabilization fund and guarantees and the hardship fund was underutilized. The loans provided by the national development bank KfW increased significantly. Most of the labour market measures expired at the end of 2020. Still, some exceptions were extended, namely unemployment benefits (until the end of March 2021), the economic stabilization fund (until the end of 2021) and short-time work (until the end of 2021) (IMF, 2021a; OECD, 2021b).

The second fiscal package, the 'recovery package', was announced in June 2020 and amounted to EUR 130 billion (3.8% of GDP) of spending in 2020 and 2021, with the possibility of further spending in the following years. Measures to boost consumption comprised a reduction in value-added tax (VAT) rates (from 19% to 16% and from 7% to 5%) between the start of July and end of December 2020, a family bonus of EUR 300 per child and greater incentives for electric vehicle purchases. Further, additional support for small-business

To preserve employment, the actual short-time work scheme was expanded by lowering the eligibility thresholds.

owners and self-employed was provided by a follow-up hardship fund and further tax measures (e.g., more generous loss carry back). Stabilizing the renewables' surcharge on electricity and limiting contributions for social security to less than 40% of income have reduced pressures on both households and industry. Moreover, municipalities can benefit financially from reimbursements for revenue losses and increases in the government contribution to various social programmes. To address long-term challenges in the domains of digital transformation, education, health and green technology, the government will provide support through public and private investments. Accordingly, the government intends to bring some existing public investment plans forward to 2020 and 2021, as well as raise spending in childcare all-day schooling, broadband and public transport, and to accelerate the use of digital technologies in administration and the health sector. Private investment will be encouraged by the following mechanisms: accelerated depreciation rules, increased R&D tax incentives and direct subsidies for research on digitalization, e-mobility and energy transition including hydrogen technologies. In addition to the support packages provided by the federal government, states have introduced programmes for their local economies. The EU Recovery and Resilience Facility will support Europe's recovery and foster resilience, including through an expected EUR 23 billion in grants to Germany in the period up to 2026 (IMF, 2021a; OECD, 2021b).

The third fiscal package was adopted in March 2021 in the amount of EUR 60 billion (1.7% of

GDP). The main aim of this package is to provide further support for lockdown-hit business and to revive economic activity. The German economy will be characterized by heavy government spending this year as the country is struggling with new waves of the pandemic. That said, Germany is in a better position than most of its European peers to recover from the pandemic quickly (Focus Economics, 2021).

Table 2 presents important measures implemented in response to the pandemic crisis. At this point, it is necessary to emphasize that monitoring the measures is extremely difficult due to their number and range, their evolution over time, and the subtleties involved in quantifying them. The measures can be broken down into two sub-groups, namely: 1) fiscal measures, i.e., those which have an impact on a country's fiscal deficit, including additional expenditures (e.g. short-time working schemes) and losses of revenue (e.g. VAT cuts or social security contribution exemptions); and 2) liquidity support and guarantee measures, including in particular deferrals of tax and social security payments, company recapitalizations and government-guaranteed loans. Altogether, the total amount of fiscal and liquidity support measures has been EUR 1,636 billion, representing 47.4% of GDP (Baudchon & Bouvry, 2021).

Monitoring the measures is extremely difficult due to their number and range.

Table 2: Fiscal and liquidity support measures adopted in Germany

Measures	EUR billion	% GDP
Fiscal measures	426	12.3
1) Short-term measures	242	7.0
a) Household support measures	86	2.5
- Short time working scheme	32	0.9
- Vat tax rate cut	20	0.6
- Other household support measures	34	1.0
b) Business support measures	102	2.9
- Direct grants to distressed one-person businesses and micro-enterprises	18	0.5
- Additional assistance to self-employed, start-ups and new technology companies	24	0.7
- Support for companies and sectors particularly affected by the crisis	26	0.8
- Other business support measures	34	1.0
c) Additional health expenses	41	1.2
d) Support for municipalities	13	0.4
2) Long-term measures	71	2.1
a) The green transition	29	0.8
b) Competitiveness	29	0.9

Measures	**EUR billion**	**% GDP**
c) Cohesion	3	0.1
d) Health and dependency	10	0.3
3) State-level and local authorities' measures	113	3.3
Liquidity support and guarantee measures	1210	35.1
1) Tax deferrals and similar	251	7.3
2) Capital intervention tools	100	2.9
3) Economic stabilization fund	400	11.6
4) Federal guarantees through KfW	456	13.2
5) Contribution "compact with Africa"	3	1.0
Total	**1636**	**47.4**

Note: The amounts of measures were accurate as of 9 June 2021.
Source: Baudchon & Bouvry, 2021.

The sub-group of fiscal measures can be further divided into short-term measures intended to act quickly or even immediately, and those that take a more structural approach to boosting the economy, whose effects will be felt over a longer time. For instance, short-term health measures include the purchase of masks, while long-term health measures include capital expenditures. Most short-term measures belong to emergency measures, while most long-term measures were released as part of recovery plans within the NextGenerationEU framework. In the context of looking at differences between short- and long-term measures, it is also important to stress that short-term measures can also have a long-term impact. This is primarily meant in the sense that steps to help enterprises and households, by protecting the productive fabric and incomes, open the way to a faster economic recovery and help limit the scarring effects of the pandemic crisis, all of which is beneficial for future economic growth. Similarly, long-term measures can have a short-term impact on the economy if the expenditure and investment contained within them are released quickly. In the German context, state-level and local authorities' measures also are playing an important role. Overall, Germany has adopted more short-term (EUR 242 billion or 7.0% of GDP) than long-term (EUR 242 billion or 2.1% of GDP) measures with state-level and local authorities' measures in the amount of EUR 113 billion or 3.3% of GDP (Baudchon & Bouvry, 2021).

Further, short-term measures can be divided into those designed to support enterprises and those that benefit households. This distinction, like the divide between short- and long-term, can be unclear since certain measures might have favourable knock-on consequences for both categories. For instance, measures to protect households' purchasing power help support the demand addressed to companies. In the other direction, measures to support companies can help protect employment and thereby support households' purchasing power. The expansion of short-term working schemes is a typical example of a measure that benefits both enterprises and households. Therefore, this kind of measure is included in measures supporting households. Moreover, some additional health expenses and support for municipalities can also be considered as part of short-term measures. Overall, Germany has introduced more business support measures (EUR 102 billion or 2.9% of GDP) than household support measures (EUR 86 billion or 2.5% of GDP), followed by additional health expenses (EUR 41 billion or 1.2% of GDP) and support for municipalities (EUR 13 billion or 0.4% of GDP). On the other hand, long-term measures, which are mostly covered within the national recovery plans as part of NextGenerationEU, are grounded on four strategic pillars: 1) the green transition, which relates to the environmental transition, notably through investment in green mobility and energy efficiency upgrades of buildings; 2) competitiveness, which relates to improving economic competitiveness, notably by supporting investment in the digital transition; 3) cohesion, which covers measures to support social cohesion, with an emphasis on young people, training and women; and 4) health and dependency, emphasizing the importance of investment in the healthcare sector. Overall, the highest amounts for Germany are provided for competitiveness (EUR 29 billion or 0.9% of GDP) and the green transition (EUR 29 billion or 0.8% of GDP) followed by health and dependency (EUR 10 billion or 0.1% of GDP) and cohesion (EUR 3 billion or 0.1% of GDP) (Baudchon & Bouvry, 2021).

Regarding the liquidity support and guarantee measures in Germany, the biggest amounts

Germany has introduced more business support measures than household support measures.

are observed for federal guarantees through KfW (EUR 456 billion or 13.2% of GDP) and the economic stabilization fund (EUR 400 billion or 11.6% of GDP), followed by tax deferrals and similar (EUR 251 billion or 7.3% of GDP), capital intervention tolls (EUR 100 billion or 2.9% GDP) and the contribution "compact with Africa" (EUR 3 billion or 7.3% of GDP). (Baudchon & Bouvry, 2021).

4 Policy recommendations for an inclusive recovery

The COVID-19 pandemic has devastated the economy in Germany. Accordingly, policymakers should consider appropriate policy solutions to reduce the pandemic's long-term effects as well as to facilitate a greener and more inclusive recovery (Caceres et al., 2021).

Despite an important milestone, i.e., 60% of the population being fully vaccinated in Germany by the end of August 2021 (Federal Ministry of Health, 2021), ongoing COVID-19-related uncertainties remain that are plaguing the German economy. This means the government should continue with the mass-vaccination efforts since good public health is a precondition for further economic recovery. Namely, possible new waves of the pandemic and associated lockdowns can constantly weaken economic activity. Experience shows that the recovery from the first wave was aggravated especially due to the worsening COVID-19 situation and associated lockdowns during late 2020 to early 2021. However, if the mass-vaccination efforts are successful, the government can proceed with the re-opening plans, which will then lead to a brighter outlook for the German economy, especially the service sector. Still, the recovery path will not be easy due to the existing risks, mostly related to the general COVID-19 situation as well as the supply shortages in essential industries (Caceres et al., 2021). This issue is mainly emphasized by industrial enterprises, which have complained about bottlenecks in the supply chain (Roetynck, 2021).

Moreover, fiscal policy is one of the important mechanisms through which the government can provide a boost to the economic recovery (Horton & El-Ganainy, 2020). This makes it important for the government to retain a supportive fiscal policy until there is strong indication of a sustained recovery. At the same time, the government should utilize the fiscal space to boost the potential growth in the medium term. Due to the unforeseen circumstances brought by the pandemic, the government has extended some COVID-19 measures adopted in 2020, namely grants to enterprises and an expansion of the short-time work subsidy. Nevertheless, the government has also introduced certain new measures for providing additional support to households and businesses. The government should consider that maintaining adequate support while the economy has not yet fully recovered is crucial for minimizing scarring effects. As the recovery gains traction, more targeted policy measures and an emphasis on enabling resource reallocation will be vital. Considering the medium term, Germany's fiscal space must be used to improve economic potential by investing in physical and human capital, accelerating the digitalization, stimulating innovation, boosting the labour supply, and increasing disposable income for households with low incomes. Achieving good progress towards the mentioned goals would also facilitate external rebalancing (Caceres et al., 2021).

In the pandemic context, the green transition is also highly emphasized as it is considered to be an important driver of Germany's recovery programme (European Commission 2021). Yet, there is still room for improvement in the cost-effectiveness of its climate mitigation efforts. According to a recent Constitutional Court ruling, Germany tightened up its greenhouse gas emissions objectives by aiming for a 65% reduction by 2030 and net zero emissions by 2045 (Reuters, 2021). The German mitigation programme might be bolstered by a better-specified schedule of carbon pricing over a longer time horizon, supplemented with sector-specific feebates, i.e., revenue-neutral tax/subsidy schemes. The government's support for green infrastructure and technologies is thus necessary to stimulate the economic recovery. Finally, the government should consider ways to implement additional reliefs targeted at households with a lower income, which may ease the potential adverse impact of higher carbon prices on households (Caceres et al., 2021).

The government is aware that the short-time work subsidy is crucial until the recovery takes hold (IMF, 2021b). There are however some vulnerable groups still not covered by the short-time work scheme that should be protected by different means. Still, the introduction of short-time work scheme has helped preserve employment and thus sustained aggregate demand. However, as the recovery gains traction, adjusting the parameters of the short-time work scheme will become critical so as not to inhibit the reallocation of labour toward growing economic sectors. Further, the post-pandemic era will highlight the additional competencies the workforce will need to have. This means appropriate assistance with job search and training programmes, especially with a focus on digital skills, can facilitate the workforce's successful transition to a post-pandemic labour market (ILO 2021). Maintaining extended access to the existing basic income programme would be advantageous for groups not covered by the short-time work scheme until the labour market has properly recovered. Finally, to mitigate the growing inequality, the government should take into the account the reduction of social security contributions on lower incomes, which would also boost hiring and the labour supply (Caceres et al., 2021).

It is also critical to maintain financial stability during the early stages of the economic recovery (European insurance and occupational pensions authority, 2021). Bankruptcies and financial losses have been limited thus far, and bank capital has risen since the pandemic began. Yet, when the support measures provided by the government expire, bankruptcies might increase, necessitating continuous targeted liquidity and solvency support for viable enterprises. Meanwhile, setting a suitable gradual timeframe for banks to restore their capital buffers is essential for mitigating the danger of lending being stopped when it is most needed. Banks must also revise their cost structures to address their chronic poor profitability. There

The post-pandemic era will highlight the additional competencies the workforce will need to have.

has been some progress in narrowing the data gaps that have hampered the full assessment of macro-financial risks. Still, the building up of financial vulnerabilities in real estate markets calls for close monitoring and for expanding the macroprudential toolkit to include income-based instruments (Caceres et al., 2021).

5 Conclusion

The COVID-19 pandemic has revealed several challenges in Germany, which can primarily be addressed by accelerating the vaccination rollout to protect against the virus, which would allow a return to normality. This means strong cooperation between the federal and state authorities is required to ensure that vaccinations are delivered efficiently as the supply grows. Moreover, the implementation of fiscal stimulus programmes is critical to ensuring a sustainable recovery, particularly the investment required for digitalization and the energy transition (OECD, 2021c).

Given the potentially longer-lasting effects of the COVID-19 pandemic, it is logical to offer stimulus beyond 2020, as is envisioned in the overall stimulus programme. However, the associated measures pursue not only one but two goals, i.e., economic stabilization and supporting structural change, with an emphasis on specific climate change measures. The result is that policy objectives are muddled. The package includes various detailed grants, subsidies and tax reliefs to encourage private investment in certain areas. This not only implies that these funds might do little to support the economic recovery, but they are also of dubious efficiency in terms of the climate targets because emissions-trading schemes and the pricing of emission certificates are already in place and provide incentives for relevant investment without the need for additional bureaucracy and government selection of the winners (Boysen-Hogrefe, 2020).

To summarize, Germany's fiscal response during COVID-19 has been large, but not huge. The initiatives are timely, although more stimulus in 2022 and 2023 may be beneficial. Some initiatives, however, are not well adapted to stabilize the economy. In the short run, the temporary VAT cut might simply rearrange demand, while the additional spending on certain climate policies might simply create windfall gains for some private investors when the emissions-trading schemes already provide an incentive to implement the most efficient emissions-reduction technologies (Boysen-Hogrefe, 2020).

Therefore, the following policy recommendations are seen as important in the context of Germany's economic recovery (IMF, 2021b): 1) maintaining an accommodating fiscal policy until there is clear evidence of a sustainable recovery; 2) calibrating the pace at which borrower support measures and bank capital relief are phased out; 3) assessing the quality of bank assets and taking supervisory action as needed; 4) sustaining the expanded short-time working scheme; and 5) deploying resources to build back a greener and smarter digitalized economy. Following these recommendations will allow the German economy to successfully recover from the consequences of the COVID-19 pandemic.

Germany's fiscal response during COVID-19 has been large, but not huge.

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Chapter 3

Understanding and effectiveness of the key fiscal measures in the Netherlands in the time of COVID-19

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1 Introduction

The COVID-19 pandemic is a global crisis and entails the greatest challenge we have faced since World War II. It is much more than a health crisis since it is responsible for tremendous social and economic effects. Following the COVID-19 pandemic that began in late February, the Dutch government introduced a wide series of sanitary policy measures that included a lockdown to limit and mitigate the spread of the virus. Apart from the health policy measures, the government adopted expansionary fiscal stimulus measures to curb the economic losses created by the pandemic. These measures were not only limited to increases in government spending in various forms but also included tax-related approaches to recuperate the fall in incomes after the start of the pandemic. On 11 May 2020, the Dutch government began to gradually ease the preventive measures. After the containment measures were lifted, a substantial resurgence in new cases followed along with the announcement of new gradual restrictions between August and November.

The second wave of the pandemic was more severe than the first and prompted the government to introduce a strict lockdown. Thus, non-essential businesses, schools, day-care centres and many public spaces such as parks and zoos were ordered to close. The key requirement underpinning these measures was working from home with very few exceptions, restrictions on traveling abroad, the avoidance of public transport and firm limits on social gatherings to one member from a different household and three members during the Christmas celebrations. These restrictions remained in place until 9 February and further extended until 27 April together with a night-time curfew between 9 p.m. and 4:30 am. Travelers from high-risk countries were also required to present a negative PCR (i.e. polymerase chain reaction) test upon entry to the Netherlands.

Starting on 3 March, these restrictions were gradually lifted. As hospitalizations and the COVID-19 caseload steadily decreased, a progressive reopening strategy was adopted. On 15 May, additional restrictions were lifted, including the use of public transport, travel to particular destinations, and hours of operation for some businesses. On 5 June, the third phase of the reopening strategy saw a further dropping of restrictions on the operations of cafes, restaurants, cinemas and cultural institutions. Finally, since 26 June 2021 the fourth phase has allowed all businesses to operate their regular opening hours, with a requirement to maintain a distance of 1.5 m or to wear a face mask, except if vaccinated. Ultimately, the advice on working from home was also lifted.

2 Understanding of the key fiscal measures in the Netherlands in the time of the COVID-19 crisis

The Dutch government has taken a focused response to the health sector and programmes to help affected businesses and individuals by introducing measures to combat the disease's spread, while ameliorating its damaging effect on the economy and society. The abundant policy space has enabled the government **to weather the pandemic** and take a comprehensive policy package by stimulating the economy and protecting jobs. Thus, a broad set of fiscal measures has been put in place since the pandemic started to reduce its macroeconomic impact.

The initial support packages were announced in March and May 2020 and included government spending measures estimated at around 4.4% of GDP. These measures covered the compensation of up to 90% of labour costs for firms foreseeing a revenue reduction of at least 20%, compensation for affected sectors such as hospitality, travel, agriculture, culture and several others, support for entrepreneurs and the self-employed, and small innovative companies, gearing up short-term working and unemployment compensation schemes as well as allowances for small and medium enterprises to help them finance their fixed costs. These measures were further scaled up through the introduction of deferred tax payments without penalties and a provision allowing for taxes to be calculated on the basis of expected reduced activity levels.

The revenue lost from the deferred tax payments by the end of 2020 is estimated at 2.2% of the country's GDP. The Dutch government also introduced public guarantee schemes worth 8.1% of GDP. These schemes covered both SMEs and large firms and aimed to help them overcome their liquidity problems. In late August, the government introduced a third support package, which essentially extended but also modified the existing measures in place at the site of expenditure through June 2021. Auxiliary support schemes also included the support of labour mobility, platforms to facilitate job transitions, the public financing of training, reskilling and career counselling, and numerous tax incentives to support private investment. A rough comparison of revenue and expenditure suggests that in 2020 expenditure-support measures amounted to 3.4% of GDP.

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The IMF (2021) report brings an overview of the key fiscal measures the Dutch government has taken in response to the COVID-19 pandemic. Table 1 shows different fiscal support measures launched in response since January 2020 and covers measures for their implementation in 2020, 2021 and beyond.

Country policy measures can be presented through the COVID-19 pandemic's impact on businesses, jobs, and the most vulnerable sectors and members of society. Stimulating the economy and jobs is intended mainly to support firms (e.g. a scheme for start-ups and scale-ups, reimbursement of fixed costs of SMEs and starting entrepreneurs, postponement of repayment with an interest discount, an R&D scheme for mobility sectors, guaranteeing bank loans to large and medium-sized companies, public guarantee schemes for SME loans, temporary support for essential costs, venture capita, bridging loans for small businesses, the reimbursement of costs).

Discretionary measures supplement the automatic stabilizers in the country. For all discretionary measures in relation to COVID-19 the Dutch government spent 14.6% of GDP (2020). The government spent 2.1% of GDP on the health sector (e.g. the purchase and distribution of medical devices, training for healthcare personnel and bonuses, research, healthcare costs in the Caribbean Netherlands) and 8.2% of GDP on the non-health sector (e.g. compensation for labour costs in companies expecting losses of at least 20%, compensation for affected sectors such as travelling, tourism and healthcare, support for start-ups and small innovation companies, income support for the self-employed and entrepreneurs, subsidizing the short-time working scheme, unemployment benefit compensation, allowances for SMEs to help them finance their fixed costs).

In addition, the government spent 4.3% of GDP on the loan guarantee programme, especially for business affected by the outbreak, a guarantee scheme for SMEs and for supplier credit. Forgone revenue is estimated to amount to 1.4% of GDP (e.g. reduction of tourist taxes and taxes in culture, temporary suspension of penalties for late tax payments) (IMF, 2021).

Compared to other EU countries, the Dutch

Table 1: Summary of fiscal measures in response to the COVID-19 pandemic since January 2020 in selected countries

	Additional spending or foregone revenues			Contingent liabilities			
	Subtotal	Health	Non-health	Subtotal	Equity injections, asset purchases, loans	Guaran-tees	Quasi-fiscal opera-tions
EU	3.8	0.0	3.8	6.7	6.1	0.6	
France	9.6	1.5	8.2	15.2	0.7	14.5	
Germany	15.3	1.8	13.6	27.8	3.0	24.8	
Italy	10.9	1.2	9.7	35.3	0.2	35.1	
Japan	16.7	2.1	14.6	28.3		2.9	25.4
UK	19.3	4.8	14.4	16.7	0.0	16.7	
USA	25.5	3.3	22.2	2.5	0.3	2.2	
Austria	15.2	1.8	13.4	2.8		2.8	
Belgium	8.2	2.1	6.1	11.9	0.4	11.5	
Czech Republic	9.2	2.6	6.6	15.5	0.0	15.5	
Malta	10.7	1.0	9.7	6.0		6.0	
Cyprus	8.3	0.8	7.5	9.2	1.9	7.3	
Latvia	10.6	2.0	8.6	2.0	0.8	1.2	
Denmark	3.4		3.4	15.6	12.1	3.5	
Greece	17.5	0.8	16.7	3.7	2.0	1.7	
Ireland	11.5	1.1	10.3	2.7	1.3	1.3	
Luxembourg	4.2	0.5	3.7	5.8	0.6	3.9	1.4
Netherlands	**10.3**	**2.1**	**8.2**	**4.3**		**4.3**	
Slovenia	9.4	0.8	8.6	6.6	1.9	4.7	
Slovak Republic	5.9	1.2	4.7	1.7	0.0	1.7	
Sweden	4.2	0.8	3.4	5.3	0.2	5.0	
Global	10.2	1.4	8.6	6.2	0.4	4.1	1.6

Source: IMF, 2021.

government spent two times more on the health and non-health sectors (10.3% of GDP) than on loans, equity injections, asset purchases, and guarantees (4.3% of GDP). With its discretionary measures (10.3% of GDP), the Dutch government exceeded the EU average of 3.8% GDP. On the other side, its 4.3% of GDP spending on loans, equity injections, asset purchases, and guarantees puts the government below the EU average (6.7% of GDP). The two countries with the highest contingent liabilities are Italy (35.3% of GDP) and Germany (25.7% of GDP) (IMF, 2021).

Altogether, the Netherlands spent 14.6% of GDP on the different measures, namely well above the EU (10.5%) and yet at the same time below what the USA (27.9%), Japan (45%) and the UK (36%) spent. A similar fiscal response to the COVID-19 crisis as in the Netherlands was shown by Switzerland (14.1%), Slovenia (16%), Malta (16.7%), Israel (14%), Ireland (14.2%) and South Korea (16.5%).

Apart from the strong fiscal support, very active monetary intervention has been led by the ECB and the Dutch central bank. The monetary accommodation and regulatory and supervisory easing including the asset purchase programme for private and public sector securities, more favourable refinancing and classification for non-performing loans, no mortgage foreclosures until a certain date to protect homeowners, operating temporarily below the Pillar Guidance, and reducing the prudential requirements for the three largest Dutch banks so as to support bank lending have largely helped move the economy towards normalization etc. (IMF, 2021).

3 Efficiency of selected tax and fiscal policy measures in the Netherlands

The financial crisis (2008) and COVID-19 pandemic crisis (2020) show that countries must develop a more agile and resilient national strategy that considers unpredictable, faster paced and more disruptive shifts in the world. Governments need to upgrade their present policies if they are to be able to respond adequately to pressing trends (e.g. global warming, technology) and potential disrupters (e.g. a pandemic).

Megatrends are forces from the past that shape our future (OECD, 2015). Megatrends like the increasing impact of modern technology, population ageing, the rapid increase in numbers of people migrating, urbanization, impaired natural ecosystems, growing inequality, resource scarcity, the shift of power to the East, the productivity slowdown and climate change must be incorporated into the Dutch national strategy.

Scenarios are stories of the future. Members of the strategy taskforce should decide which of these scenarios are the most relevant and challenging for the Netherlands. Strategy developers should include in their analysis at least one global (new financial crisis, new pandemic) and one regional (the EU breaking apart) scenario. These scenarios could significantly affect the quality and our way of life.

Disruptions are future signals that could cause significant and sudden changes. The presence of today's global COVID-19 pandemic over a large geographical area shows that it can overwhelm our response systems. The Dutch government must identify critical uncertainties with a considerable disruptive impact on the country and its citizens.

Countries must develop a more agile and resilient national strategy that considers unpredictable, faster paced and more disruptive shifts in the world.

Megatrends, scenarios and disruptions are complementary ways to understand the wider context and to see their impact on the Netherland's future (Beinhocker, 2015; OECD, 2015). The Dutch government must identify megatrends and disruptions as part of testing the resilience of its own strategies. These deep-set trajectories of changing conditions can bring gradual or disruptive impacts whose ultimate consequences cannot be fully determined. The Dutch government must explore the robustness of its strategy from the sustainable aspects of economic productivity, social inclusiveness and environmental quality.

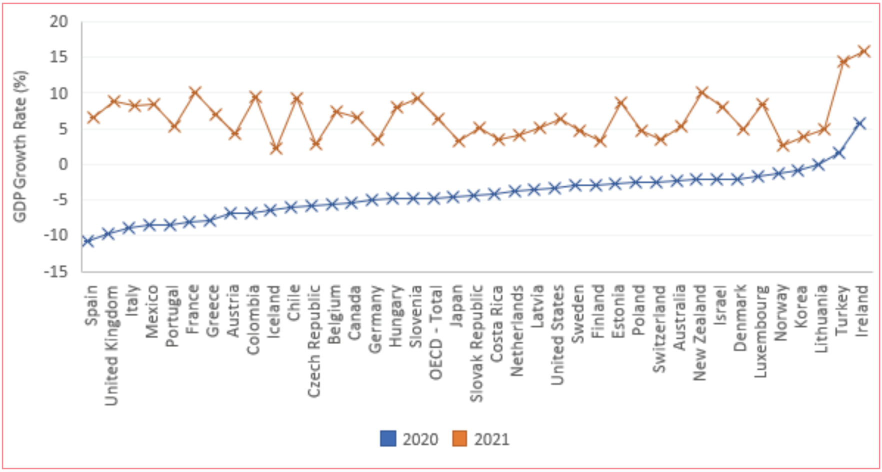
As countries begin to emerge from the COVID-19 pandemic, policymakers have to build back to a better society by addressing inequalities, fostering the green transition, and strengthening resilience (OECD, 2021). The OECD's COVID-19 Recovery Dashboard (2021) developed by the OECD Centre on Well-being, Inclusion, Sustainability and Equal Opportunity contains 4 dimensions and 20 indicators to monitor the quality of the recovery – whether it is Strong, Inclusive, Green and Resilient. Below, we present only those dashboard indicators that have values in the period after the virus outbreak in order to compare the recovery process of the Netherlands within the OECD group of countries.

Strong dimension implies the pandemic's impact on the economic prosperity of households and businesses and the revival of economic activity through the recovery of GDP growth and household income (OECD, 2021).

a) GDP

The COVID-19 pandemic and related restrictions shut significant parts of the economy down. The indicator sheds light on whether economic activity is returning to the pre-crisis levels. The Netherlands has seen a steep decline in GDP in 2020 followed by a modest economic recovery in 2021. By the third quarter of 2021, GDP had risen by 4.2% at the quarterly level and was lagging somewhat behind the OECD average. Further, the recovery of economic activity to the pre-pandemic level has lagged behind fast-growing OECD economies in the high-income country category such as Ireland, New Zealand and Luxembourg.

Figure 1: Comparison of the Netherlands with members of the OECD (% change over the same period in the previous year)

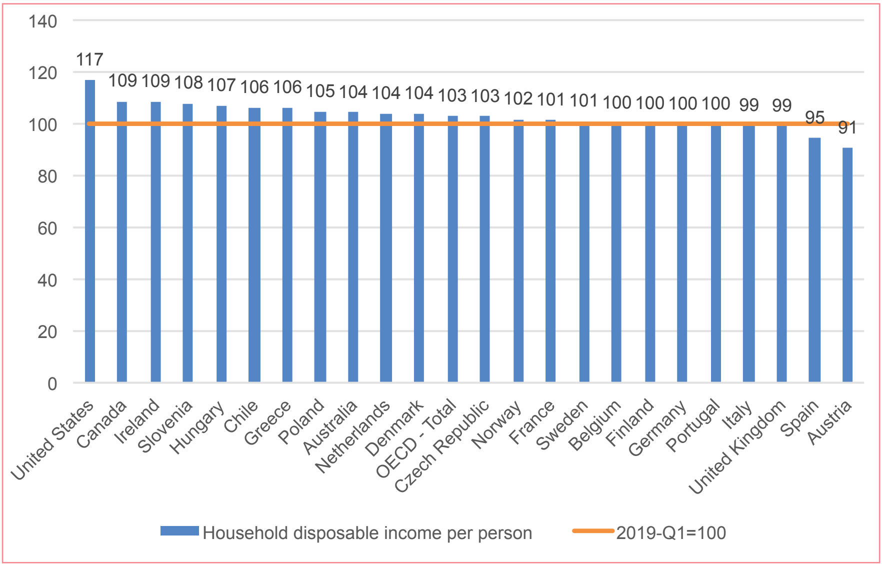


Source: Own elaboration based on secondary data.

b) Household income

Household income per person provides an indication of the pandemic's economic impact on the average household. It captures the income after paying direct taxes and social contributions and after receiving potential transfers from the government, adjusted by inflation (OECD, 2021).

Figure 2: Comparison of the Netherlands with members of the OECD (Index value, where 2019, Q1 = 100)



Source: Own elaboration based on secondary data.

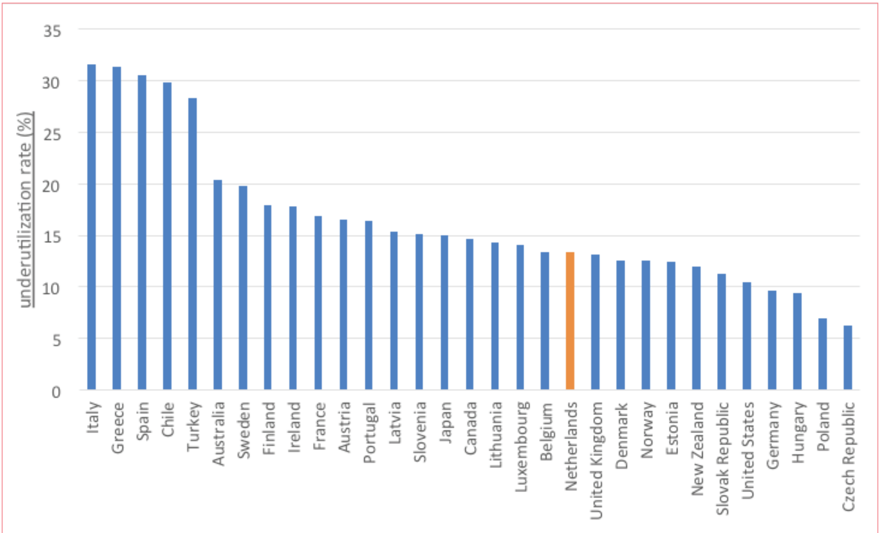
Compared to the OECD average, the Netherlands has weathered the pandemic's economic impact on the average household reasonably well compared to the OECD countries. A look at the index across the OECD countries reveals that household disposable income in 2021 is about 4% higher than the pre-pandemic level. The positive gap is comparable with the OECD average.

How has the pandemic affected the income and jobs of the most vulnerable in the Netherlands? Are the efforts of the Dutch government creating better opportunities for all? Is the Netherlands' trajectory becoming more inclusive? The inclusive dimension in this paper is limited only to assessing the labour underutilization rate in the Netherlands in comparison with the OECD countries (OECD, 2021).

c) Labour underutilization rate

The labour underutilization rate includes in the numerator the unemployed, discouraged (i.e. persons not in the labour force who did not actively look for work during the past 4 weeks but who wish to work) and underemployed workers (i.e. full-time workers working less than usual for economic reasons and part-time workers who wanted but could not find full-time work), expressed as a ratio of the labour force. This indicator therefore provides a wider view of joblessness and unrealized potential (OECD, 2021).

Figure 3: Comparison of the Netherlands with members of the OECD (% of the labour force)



Source: Own elaboration based on secondary data.

The Netherlands has seen a slightly below-average rate of underutilization. In particular, Figure 3 reveals that about 13% of the labour force in the Netherlands has been under-utilized during the pandemic, which appears to be fairly close to the OECD average of 16%, and considerably well behind nations where over 30% of the labour force is under-utilized such as Italy, Greece and Spain. Countries with the lowest rate of underutilization at a level below 10% are the Czech Republic, Poland, Hungary and Germany.

Table 2: Working hours lost due to the COVID-19 crisis (%)

Country / Region	Year	Working hours lost due to the COVID-19 crisis compared to 4th quarter 2019 (%)	Country / Region	Year	Working hours lost due to the COVID-19 crisis compared to 4th quarter 2019 (%)
USA	2020	9.6	Netherlands	2020	2.8
USA	2021	5.0	Nether-lands	2021	0.7
Germany	2020	5.5	Sweden	2020	5.2
Germany	2021	4.6	Sweden	2021	1.6
EU	2020	7.9	Western Europe	2020	6.1
EU	2021	7.4	Western Europe	2021	2.9

Source: ILO, 2021.

Working hours lost due to the COVID-19 crisis (ILO, 2021) are presented in Table 2. In the third quarter of 2021, global working hours in 2021 are estimated to remain significantly below the level seen in the last quarter of 2019. The table presents data for selected representatives of particular capitalist economic systems (market-based, social-democratic, continental) and data for the regional group of countries (Western Europe, the EU). Countries within a particular economic system share the same institutional characteristics in terms of the complementarity and hierarchy of institutions in the labour market.

The USA, as a representative of the market-based capitalist system, has a low level of employment protection, high flexibility in the labour market, it is easy to hire and fire there, while there is no active employment policy or defensive unions. The Continental system (Germany) has a relatively high level of employment protection, limited external flexibility, an active employment policy, strong unions and a high degree of social protection. The Scandinavian model (Sweden) has moderate employment protection, centralized wage bargaining, active employment policy, strong unions and high level of social protection. The Netherlands lies between the market-based and Continental economic systems (Amable, 2003).

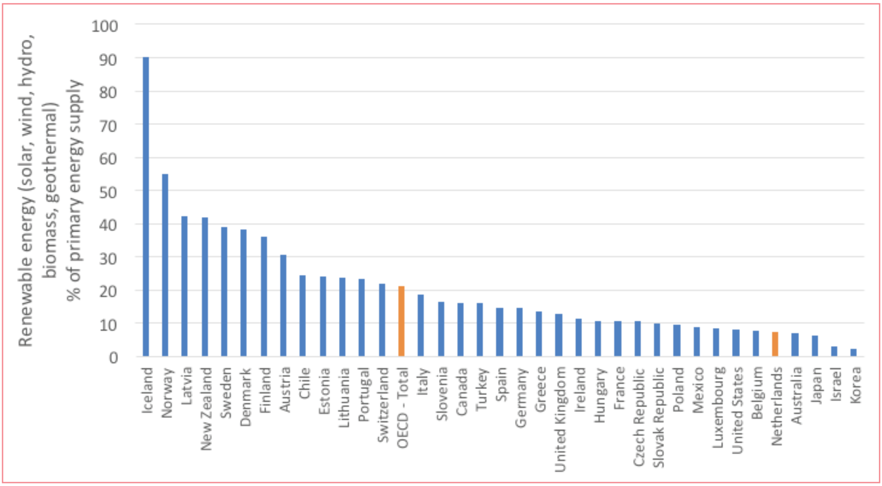
The pandemic has had a comparatively limited impact on the Dutch labour market. In the Netherlands, the unemployment rate increased less due to the shock of the COVID-19 crisis while the working hours also tended to recover faster to the initial level than in selected countries or groups of countries (Western Europe, the EU). It seems that the labour market disruptions were smaller and the recovery faster in the Netherlands with respect to the working hours lost.

The Dutch economy has weathered the pandemic comparatively well, with a smaller recession than in the euro area in 2020 and a recovery thus far in 2021. The most affected in the labour market have been the self-employed and workers under flexible contracts. The labour market policy has ensured for them appropriate social protection and higher employment protection for workers with flexible contracts. As a result, unemployment has nearly returned to the pre-pandemic lows. At the moment, vacancies in the labour market exceed the number of unemployed individuals (IMF, 2021).

d) Renewable energy

Is the Netherlands using the recovery to transition to a greener economy? Is the Netherlands on the path to meeting its climate goals? The Green dimension is about monitoring countries' progress in achieving a people-centred green transition, consistent with the SDGs (OECD, 2021).

Figure 4: Renewable energy production in terms of primary energy supply



Source: Own elaboration based on secondary data.

A rapid energy transition away from fossil fuels is needed to less carbon-intensive energy sources and to renewable energy (hydro, geothermal, solar, wind, tide&wave sources). Figure 4 suggests the Netherlands is characterized by a considerably small amount of renewable energy produced from renewable sources. In particular, about 7% of the country's total energy supply comes from renewable sources, one of the lowest proportions among the OECD countries together with Australia, Japan, Israel and South Korea, and appears to lag substantially behind countries where considerable decarbonization and the transition to a greener economy is underway such as Iceland, Norway and Latvia.

Is the Netherlands' economy and society becoming more inclusive in order to better confront future risks? How well is Dutch society prepared for future challenges? The Resilient dimension considers some of the key factors that support preparedness such as the COVID vaccination rate, level of public debt, and trust in the government (OECD, 2021).

e) COVID-19 vaccination rate

Vaccines are one of the critical instruments for building resilience against an outbreak of the COVID-19 virus. Fully vaccinated people have received all doses prescribed by their vaccination regimen (OECD, 2021). The Netherlands has vaccinated nearly 72% of the eligible population, which is considerably higher than the OECD average (59%), and is comparable with countries like Belgium and Canada that have a similar level of per capita income to the Netherlands. Figure 5 depicts national COVID-19 vaccination rates across the OECD countries in terms of the percentage of the eligible population.

Figure 5: Comparison of the Netherlands with members of the OECD (% of population)

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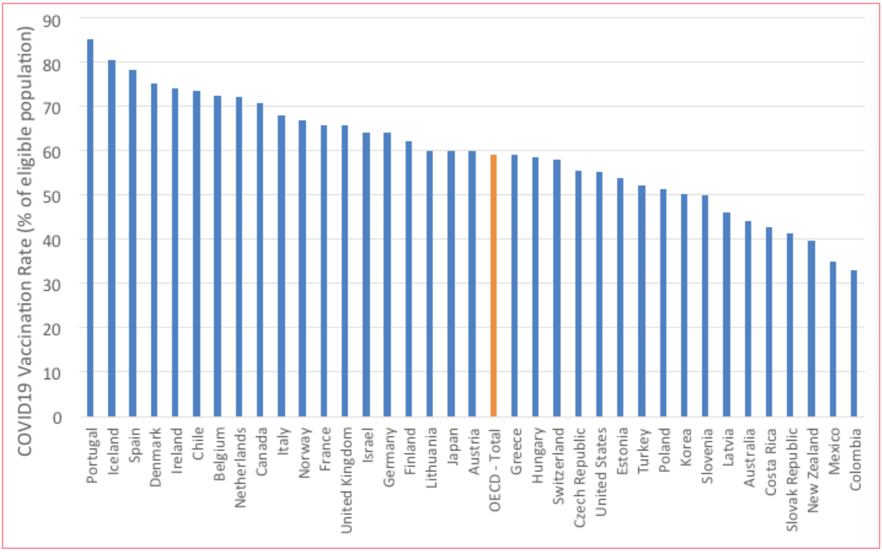
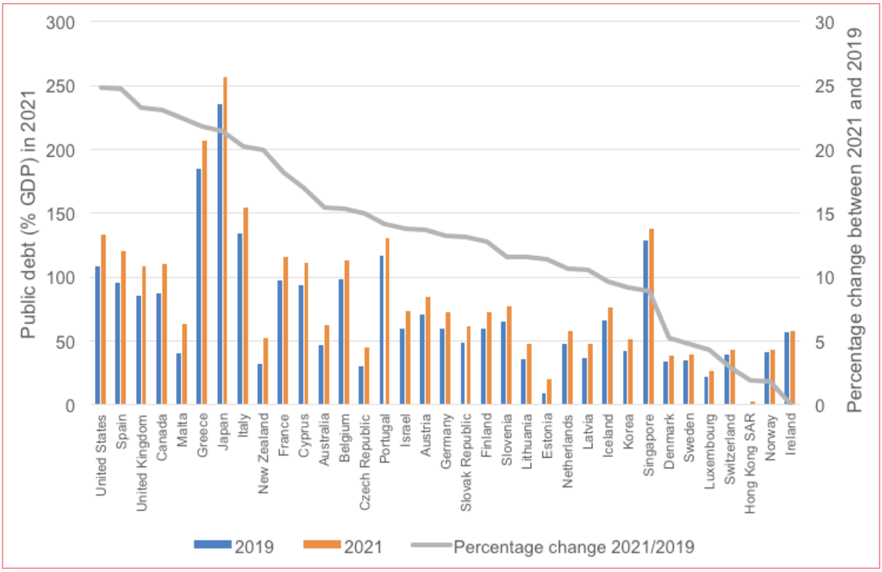


Source: Own elaboration based on secondary data.

f) General government and public debt

During the pandemic, public debt has risen, both absolutely and relatively to GDP, in many countries. In the recovery period, the Dutch government will have to balance the need for public programmes with long-term fiscal sustainability goals (OECD, 2021). In this regard, the Netherlands has endured the fiscal impact of the pandemic reasonably well compared to other OECD economies. In 2021, public debt amounted to 58% of GDP, namely, 11 percentage points higher than in the pre-pandemic period.

Figure 6: Comparison of the Netherlands with members of the OECD (public debt as % of GDP)



Source: Own elaboration based on secondary data.

By contrast, other countries have endured both higher pre-pandemic debt as well as a disproportionately larger increase in their debt-to-GDP ratio during the pandemic. For instance, the debt-to-GDP ratio in the USA rose 25 percentage points between 2019 and 2021. Countries hit hardest by the pandemic in the eurozone such as Spain and Italy have seen similar increases. On the contrary, Ireland, Norway, Switzerland and Luxembourg tend to have both lower pre-pandemic debt ratios and a much slower rate of increase in their debt-to-GDP ratio in response to the pandemic.

It seems that, as the country emerges from the COVID-19 pandemic, the Dutch government is building a stronger, more inclusive and more resilient society. Table 3 shows the Dutch government has taken a positive step in the majority of indicators, comparable with the OECD average. A quality recovery would help set the country back on course for its mid- and long-term agendas and facilitate its progress towards meeting the SDGs. This means addressing inequalities and strengthening resilience in the face of future disrupters and megatrends.

Table 3: Comparison of the Netherlands with OECD countries

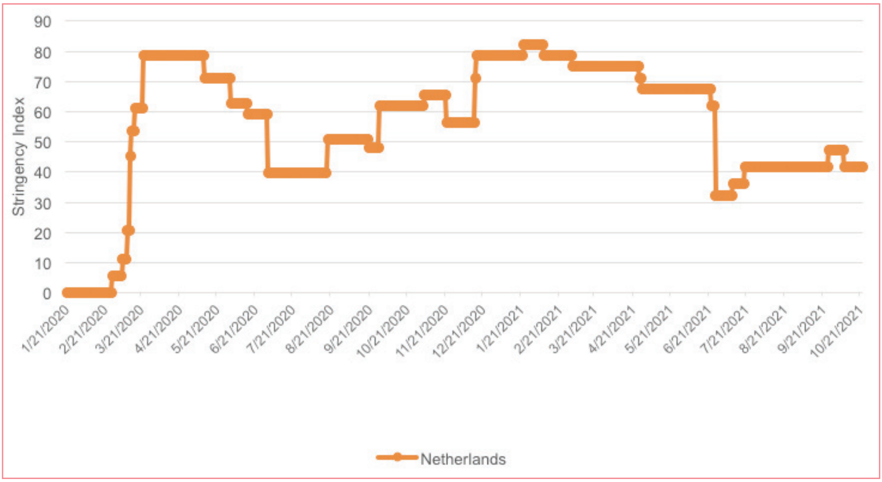
Indicator	Year
GDP (% change over the same period in the previous year)	Lagging behind the fast-growing OECD countries
Household income	A positive gap comparable with the OECD average
Labour underutilization rate (% of the labour force)	Below the average rate of underutilization in OECD countries
Renewable energy (% of the total energy supply)	Lagging behind the OECD countries' average
COVID-19 vaccination rate (% of population)	Considerably higher than the OECD countries' average
Trust in the government (% of population with confidence in the government)	Considerably higher than the OECD countries' average
Public debt (as % GDP)	Other countries had a higher pre-pandemic debt as well as a disproportionately bigger increase in their debt-to-GDP ratio during the pandemic

Source: Own elaboration based on secondary data.

Public debt (as % GDP) Other countries had a higher pre-pandemic debt as well as a disproportionately bigger increase in their debt-to-GDP ratio during the pandemic.

Figure 8 depicts the COVID-19 stringency index as a rough measure of the overall efficiency of the policy response. The nine metrics used to calculate the Stringency Index are: school closures; workplace closures, cancellation of public events, restrictions on public gatherings, closures of public transport, stay-at-home requirements, public information campaigns, restrictions on internal movements, and international travel controls. The index takes values from 0 to 100 (100 = strictest). The Stringency Index suggests the Netherlands preferred to opt-out of a strict lockdown in the first wave but toughened up its restrictions in the second wave, and has maintained moderate restrictions that seem to be somewhat more relaxed than the average in the OECD.

Figure 8: COVID-19 stringency index for the Netherlands



Source: Own elaboration based on secondary data.

4 Tailored guidelines for public authorities for practical use

Assessing the macroeconomic impact of the fiscal policy measures to counteract the economic losses caused by the pandemic is constrained by the lack of data input and appropriate time horizons. Several studies suggest the fiscal policy stimulus to combat the losses has generally been effective, with some notable insights. For instance, Chuddik et al. (2021) quantify the macroeconomic effects of fiscal actions in response to the COVID-19 pandemic. Their empirical strategy uses a threshold-augmented global vector-autogressive model to quantify the macroeconomic effects of the discretionary fiscal actions in response to the pandemic. Their findings lead to three important insights.

First, fiscal policy has been playing a fundamental role in mitigating and containing the effects of the pandemic. Second, countries that implemented a larger fiscal support package have indeed experienced smaller contractions of output. Third, coordinated fiscal policy actions have favourably impacted emerging markets through the spillover channel that further reduced the volatility of the financial markets.

In response to the COVID-19 crisis, fiscal policies may invariably be characterized by a trade-off between the offsetting of the losses and sustainability of public finances in the medium-term perspective. For instance, Di Pietro et al. (2020) evaluate the impact of the pandemic-mitigating policies by calibrating a model of the Italian economy through

Fiscal policy has been playing a fundamental role in mitigating and containing the effects of the pandemic.

a comprehensive specification of taxes, transfers and subsidies. They show the fiscal stimulus plans reduced the impact on GDP of the COVID-19 shock by 25% at the peak of the crisis. Yet, although bigger reductions of corporate tax and accelerated increases in public spending would probably further add to the losses, these measures would also jeopardize the fiscal sustainability of public finances. Further, Fozan and Overvest (2021) highlight the slowdown of business dynamism in the Netherlands during the COVID-19 pandemic with a record decline in new entrants in 18 out of 19 economic sectors, suggesting that COVID-19-induced trends may bring negative effects to long-term productivity. The question that arises immediately from these comparisons concerns the innate effectiveness of the fiscal policy tools in counteracting the economic losses. In this respect, Faria-e-Castro (2021) shows that unemployment benefits are the most effective tool for stabilizing income for the hardest-hit borrowers whilst liquidity assistance programmes appear to be the most effective tool for stabilizing employment.

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Chapter 4

Tax and fiscal policy response after the COVID-19 pandemic: Reshaping the face of our societies during the epidemic wave of digitalization

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1 Introduction

The transformation to digital is reshaping the face of our societies and radically changing the ways our economies function. The digitalization of communication and business operations has been underway for several decades and been exacerbated during the coronavirus pandemic, thereby further highlighting the pivotal role of the Internet. While the COVID-19 crisis is accelerating technological progress by offering opportunities to enhance productivity and long-term growth, it is also accentuating both global and local inequalities. In the past four decades, almost all advanced economies have become more polarized, with increasingly unequal income distribution. Developing economies have lifted billions of people out of poverty, but in the process they have also created their own rising inequalities and social tensions.

The global economy's lopsided growth had taken us to the edge of catastrophic climate change while political upheavals meant the world could not expect to go on as before. This pressure for change was reflected in economic policy thinking that was rapidly challenging the old orthodoxies about public spending, central banking and government intervention in the economy. Then, the COVID-19 pandemic has brought about the most dramatic economic collapse in peacetime memory and, at the same time, reinforced the chronic economic polarization. As a result, the fundamental economic fact about the pandemic is not only that it has put a spotlight on the existing societal fault lines, but it has intensified the related public awareness and pre-existing policy debates surrounding what is today perceived to be an urgent priority. Indeed, concerns about growing inequality have been given new fuel. One reason is that, on one hand, the 'lockdown economy', based on social-distancing measures, has disconnected certain types of business activities from their traditional physical presence, entailing the risk of their disappearance from the market in the near future, if not immediately. On the other, it has affected workers in the 'gig economy', which offers flexible business but can lead to tax distortions and gaps in the social and economic protection system. In addition, the digital transformation has been accelerated by the pandemic, while allowing households, firms and societies to better cope with the coronavirus crisis in the short term and creating new opportunities and challenges for reviving productivity growth in the medium term, and revealed that a significant share of the population has weak digital skills and difficulty in accessing the new digital environment, with the risk of widening the social divides. The crisis has also highlighted the gap between well-connected urban areas and rural or remote areas and exposed the divide between digital-ready business and those yet to adopt digital solutions. It is plausible that digitalization will help concentrate activities among a small number of highly profitable and intangibles-intensive firms, posing challenges for competition policy and corporate taxation.

The pace of the adoption of and adaption to digitalization varies considerably both across and within countries and industries. This heterogeneity poses societal and economic challenges that share important features with other major innovation waves observed in the past, at least since the advent of the first industrial revolution. Tax policy has an important role to play in enhancing equality through actions to address the distribution of income and wealth. Therefore, in rethinking their approach to public finances, countries will have to develop their tax and fiscal strategies that take account of their country-specific circumstances.

For all of these reasons, the pandemic is forcing policymakers to confront problems neglected for too long. Yet, while things cannot go on as before, some questions remain: Which policies should be implemented to 'build back better' and with which goals in mind? With specific regard to digital transformation, which policies should be adopted to encourage it and foster digital inclusion?

This paper focuses on how the COVID-19 pandemic in Italy is amplifying the opportunities and challenges concerning digital transformation. It informs policymakers of regulatory practices adopted by the Italian government to deal with the emergency and analyses the achievements, challenges and possibilities of the tax administration's digital transformation under the National Recovery and Resilience Plan (NRRP, 2021). In the final section, it considers some tax policy options as designed and endorsed during the Italian G20 Presidency to support inclusive and sustainable economic growth through digitalization beyond the COVID-19 crisis.

In the first half of 2020, the world economy faced its deepest setback since World War II.

2 The shock of the COVID-19 outbreak: The response of Italian policy

In the first half of 2020, the world economy faced its deepest setback since World War II caused by the outbreak of the COVID-19 pandemic. After the spread of infection in China, Italy was the first European country to be hit by the pandemic wave. Although with different durations, the halting of non-essential activities and social distancing to contain the health emergency have been adopted in various geo-economic areas. In this context, in April 2020 the pandemic had particularly negative economic impacts in the euro area when the lowest point was reached, while the economic figures available since May 2020 suggest a gradual recovery, thanks to the easing of the measures to prevent infection and a series of extraordinary, powerful economic policy interventions to support employment, incomes and the liquidity of households and businesses.

The social-distancing measures and the difficulty of many sectors in continuing their activities by way of remote work has led to asymmetrical effects on different economic sectors. In fact, the health emergency's impact has been particularly harsh on the services sector and especially on the manufacturing industry. Sectoral dynamics have varied: the pandemic crisis' negative consequences have mainly affected tourism, leisure and catering activities. At the same time, the trade, transport and housing sectors have been hit hard by the limitations on travel and the social-distancing measures needed to contain the virus. The measures introduced by the Italian government in the first half of 2020 have worked to an important extent to mitigate all of those negative effects and are now fully considered in the trend macroeconomic scenario. In particular, this scenario not only takes the "Cura Italia" and "Liquidity" decrees into account, adopted in March and April 2020 respectively, but also the impact of both the "Relaunch" and "August" decrees. Consequently, the unprecedented response to the COVID-19 crisis has resulted in an expansive fiscal policy in 2021 – that will presumably also remain expansionary in the coming years – consistent with the European institutions' guidelines which have seen it as necessary in order to continue to support the economic recovery through policies of stimulus, that are hopefully selective and temporary. Positive effects, in particular on private consumption, are also expected in 2022 due to the abolition of VAT increases provided for by the above-mentioned "Relaunch" decree.

Overall, in the initial phase of the COVID-19 pandemic, GDP performance was clearly affected by the highly restrictive measures aimed at fighting the crisis. Indeed, according to official ISTAT estimates, 2020 ended with an 8.9% drop in real GDP and a 7.8% drop in nominal GDP, in line with what was forecast in the Draft Budgetary Plan 2021 (DBP) and what was projected in Italy's Stability Programme 2020 (that projected a -8.0% drop in real GDP and a -7.1% fall in nominal GDP in 2020; in the DBP, the fall in real GDP was revised to -9.0% and the nominal one to -8.0%).

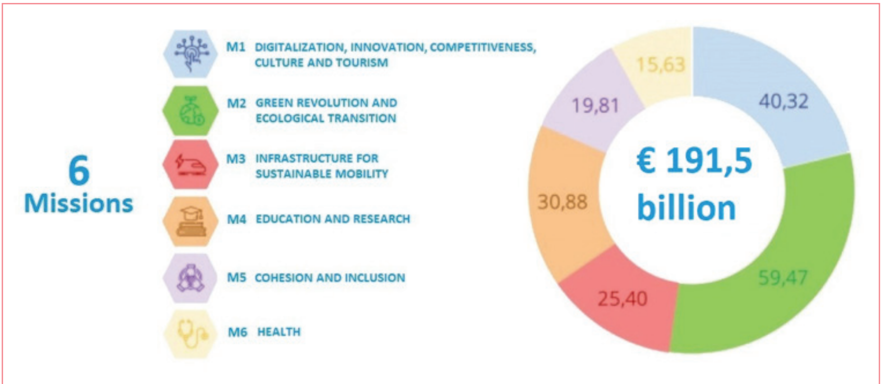
However, the path to recovery is underway. According to Italy's Draft Budgetary Plan 2022, GDP is estimated to grow by 6.0% in 2021 (contrary to the growth macroeconomic forecasts of last April, which estimated that GDP would rise by 4.5%) and, following the recovery in the current year, it is expected to grow by 4.3% in 2022 and 2.5% in 2023. While the trajectory of the COVID-19 epidemic was significantly worse than foreseen in some economic official documents (e.g., Italy's Stability Programme 2020 and DBP Italy 2021), the economy's performance was better than expected.

The learning process with respect to economic agents is not the only explanation of the said performance because two more factors lie behind it. First, healthcare measures have gradually become more targeted and geographically articulated, thereby enabling the manufacturing and construction industries to remain open after the initial lockdowns. Moreover, the vaccination campaign has been underway since the beginning of the year, with the government having, according to expectations, administered vaccines to 80% of the Italian population by autumn 2021. Second, numerous economic policy interventions were implemented in the last 2 years. Further measures to support the economy include a moratorium on outstanding bank loans and mortgages and state guarantees on new loans, which enabled credit to the economy to grow in 2020 despite the crisis. In this way, public finances have acted as a shock absorber in the crisis. A fundamental component of the broader strategy aimed at exiting the crisis and returning to growth will be based on giving a boost of unprecedented proportions to public investment, incentives for private investment, research and development, digitalization and innovation. All these reforms play a crucial role in the National Recovery and Resilience Plan (hereinafter "NRRP"), a complex economic plan submitted to the European Commission by Italy as part of the Next Generation EU (NGEU) programme.

As is well known, on the European level institutions reacted resolutely to the crisis arising from the health emergency. In greater detail, the European Commission presented the European Parliament with a proposal to create a new instrument called Next Generation EU (NGEU) in order to urge the governments of Member States to implement structural reforms in the economy, finding an equilibrium between financial support and fiscal sustainability. The NGEU marks a radical change for the EU. From the macroeconomic point of view, European cohesion, which allowed the adoption of the Next Generation EU, coupled with the accommodating monetary policy of the ECB, has created a strong and unparalleled intervention network with a great impact on the stability of the financial markets. On 21 July 2020, European leaders reached a historic agreement on the pool of funds to be allocated to the recovery, totalling EUR 750 billion, and agreed on the EU budget for the period 2021-2016 of 1,074 billion. The budget will support, inter alia, investment in the digital and green transitions.

Organized into 16 components and structured as 6 policy areas of intervention ("Missions"), the National Recovery and Resilience Plan deemed by the European Commission to comply fully with the regulatory requirements is centred on three horizontal priorities (digitalization and innovation, ecological transition and social inclusion). It must be noted that a substantial proportion of the measures included in the Italian RRP will contribute to Italy's digital transformation (around one-quarter of the Plan's funding). (See Figure 1).

Figure 1: Allocation of NRRP resources to the Missions



Source: National Recovery and Resilience Plan, 2021.

Indeed, Mission 1 (M1) of such a Plan, entitled "Digitization, Innovation, Competitiveness, Culture", aims to promote the country's digital transformation so as to support innovation in the production system. Digitalization and innovation also set the stage for certain key policy options endorsed by the Italian G20 Presidency.

3 New economic and societal trends: Digitalization's role in managing the coronavirus pandemic and supporting the economic recovery

A wide range of long-term structural trends impact how economies and societies around the world function. Structural trends include slowing productivity growth, accelerating digitalization, automation and artificial intelligence, rising inequalities, population ageing, changes arising from globalization and mobility, climate change and environmental degradation, and increasing health risks. Some trends are interrelated and most have been influenced in some way by the COVID-19 crisis.

The current COVID-19 pandemic clearly shows how important digital assets have become for our economies and how networks and connectivity, data, AI as well as basic and advanced digital skills sustain our economies and societies by allowing work to continue, tracking the spread of the virus, and accelerating the search for medications and vaccines. Hence, in an already transforming technological and business environment, the COVID-19 pandemic came along and forced a rapid and large-scale reorganization of the services and products on offer. In a short period of time, social-distancing and lockdown measures were introduced and the shift towards digitalization, which was already underway before the pandemic, received a boost.

Social distancing further emphasizes digitalization's importance for the economy as a whole; it affected the introduction of digital technologies in all areas of human activity, for example, by forcing companies to increasingly offer employees the option of working at home or increasing citizens' confidence in their use of digital financial services and e-commerce. Italy is no exception to this general trend toward acceleration of the digitalization process. These trends suggest that the change in consumer and worker habits towards greater use of digital instruments, which had started off slowly before this crisis, will continue in the years to come, potentially at a faster pace than observed before.

Italy ranks 25th out of 28 EU Member States in the 2020 edition of the Digital Economy and Society Index (i.e. DESI), which shows the COVID-19 crisis is having an important impact on key societal indicators regarding the use of Internet services by citizens (see Figure 2). Consequently, the DESI 2020 findings must be read in conjunction with the strained demand that has been put on digital infrastructure and services during the pandemic and the immediate actions taken by the Member States.

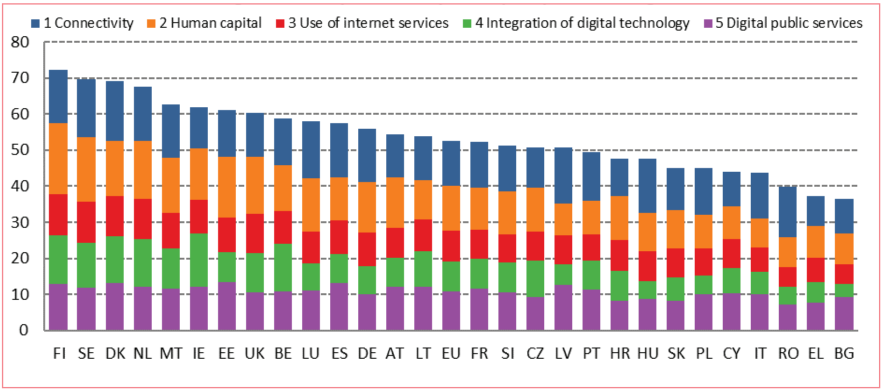
Similarly, as Europe progressively exits from the pandemic, the recovery being planned must take account of the lessons arising from this crisis. This means close attention to indicators that are especially relevant for a stronger and more resilient digital transformation and economic recovery after the COVID-19 crisis, notably very

Italy ranks 25th out of 28 EU Member States in the 2020 edition of the Digital Economy and Society Index.

high-capacity networks (VHCNs) and 5G, digital skills, advanced digital technologies for businesses and digital public services.

To start with, Italy is very advanced with 5G but lags behind in the deployment of VHCN. In terms of 5G readiness, Italy performs well above the EU average and the score in the Broadband price index is 73 against an EU average of 64. As regards VHCN coverage, Italy has increased its pace of fibre deployment yet is still lagging behind (only 30% compared to the EU average of 44%). The country still has a weak performance in digital skills and the digitization of businesses, while the uptake of digital public services remains low.

Figure 2: Digital Economy and Society Index (DESI) Italy 2020 ranking



Source: DESI Italy, 2020.

In the years preceding the pandemic, Italy was not faring well with digitalization, despite a range of policies and strategies it had introduced to digitally transform both the public and private sector. In fact, the most recent period was marked by the launch of new initiatives, notably the introduction of a "Digital Transformation Team" (2016) and the establishment of a new Ministry for Technological Innovation and Digitization holding broad responsibility concerning modernization and digital transformation on both the national and local levels (2019). Moreover, in December 2019 the Ministry presented the "Italia 2025" strategy, a 5-year plan that puts digitization and innovation at the centre of a "process for the structural and radical transformation of the country". Regarding the digitization of businesses, the Italian government renewed the National Plan "Enterprise 4.0" (a key instrument for supporting Italian enterprises' digital transformation) and launched "Transition 4.0", that has a stronger focus on innovation, green investment and the participation of SMEs. In addition, in March 2020 it launched the National Innovation Fund with an initial budget of EUR 1 billion and operating on the basis of Venture Capital methodologies to support investment in innovative enterprises. However, despite all of the numerous initiatives, Italy remains beset by serious delays, compared to other European countries, in responding to the new challenges posed by digitalization. One of the main reasons behind these delays is the lack of a digital infrastructure which is appropriate and meets European standards. The traditional structure of the Italian production system explains the gap between Italy and the EU regarding e-commerce. Only 10% of Italian SMEs sell online (well below the EU average of 18%), 6% sell across the border to other EU countries (8% in the EU), and they generate on average 8% of their turnover from online sales (11% in the EU). The low demand for digital services has also affected

Only 10% of Italian SMEs sell online.

their limited supply. Data prior to the pandemic show significant gaps as regards human capital. Compared to the EU average, Italy has recorded very low levels of basic and advanced digital skills, as reflected in the modest use of online services. Finally, another factor limiting the ability to seize all of the opportunities coming from the digital revolution is the comparatively slow pace of relevant structural reforms.

Still, the pace of implementation of major projects to help with the country's digital transformation has grown significantly during the COVID-19 pandemic. Overall, the acceleration seen in 2020–2021 in implementing key e-government projects may make up for the delays in earlier years and bring Italy closer to its targets. It is undeniable that accepting new digital technologies as part of people's daily routine together with awareness of their importance are essential for ensuring that all of the digital transformation goals can be realized in practice in the long term.

The new challenges the digital transition is generating are becoming a policy priority. The recent introduction (February 2021) of a new Minister without a portfolio for technological innovation and digital transition is a prime example here. Further, as anticipated above, the NRRP set out a comprehensive list of missions for the next few years, with the aim of improving the digital performance of those key indicators identified by the Digital Economy and Society Index (DESI) and the EU Commission's Communication, namely "Shaping Europe's Digital Future". The digitalization of public administrations plays a central role in the Italian Recovery and Resilience Plan, and thus the section below is devoted to it.

4 Digital transformation of public administration under the Italian Recovery and Resilience Plan

The health emergency crisis severely disrupted the provision of public sector services, intensifying several underlying problems and making even more urgent and compelling a coordinated response to the grand challenges facing the Italian public administration. In particular, this situation has magnified the need for organizational innovation, remote working, and developing the public administration's human capital while promoting agile work to ensure that public services are designed, implemented, delivered and monitored according to users' expectations concerning quality.

The digitalization, innovation and security of the public administration is one of the three components of Mission 1 (M1) of the Italian PRR. Undoubtedly, the reforms provided by the NRRP may be considered a relevant starting point for making Italian public administration more efficient, digitalized, better organized and truly connected with users' needs. Indeed, this component aims for a radical breakthrough in the public administration (PA) by promoting innovation and digital transformation through targeted investments and structural reforms. The proposed interventions combine investments in new equipment and services with important interventions in the PA's organization and human capital endowment, according to a proper complementarity-based and articulated reform strategy. The strategy takes account of both the 2019 and 2020 CSR calls to improve the PA's effectiveness and the judicial system's efficiency.

The digitalization, innovation and security of the public administration is one of the three components of Mission 1 (M1) of the Italian PRR.

The proposed reforms and investments under this component support the European flagships "Modernize" and "Scale-up" by equipping the PA with modern, interoperable and safe infrastructures and services. The component also reflects the European flagship "Reskill and upskill" by providing skills and new digital competencies to civil servants and managers on different administrative levels as well as all citizens, including those segments of the population with lower digital competencies and currently more affected by the digital divide.

More specifically, the targeted objectives and related investments for the main areas of intervention concerning the (component) digitalization of the Italian PA within Mission 1 of the NRRP are the following:

1. Rationalize and consolidate the existing digital infrastructures for the digitalization of the public administration, fostering the uptake of cloud computing and strengthening cybersecurity, with particular attention to the harmonization and interoperability of platforms and data services.

2. Guarantee increasing levels of availability, efficiency and accessibility for all digital public services, improving the level of adoption and level of citizens'/businesses' satisfaction (with a direct impact on the Digital Public Services DESI Indicator), also thanks to a user-centric and open approach to service design.

The investments needed to ensure the uptake of modern and digital infrastructures and services by the PA may be grouped into three streams:

a) Digital infrastructures and cybersecurity. In order to equip the PA with reliable infrastructures and accompany central administrations as they move towards a new logic of conservation and use of data and service provision, an efficient and secure cloud system will be implemented.

b) Data and interoperability. To fully leverage the country's data assets by implementing the once-only principle ensuring the interoperability and accessibility of data through a catalogue of Application Programming Interfaces (APIs). This aspect is very important for companies' re-use of critical data and their competitiveness on the national and international levels.

c) Digital citizenship, enabling services and platforms. The goal is to develop and disseminate enabling platforms such as digital identity systems. Moreover, this investment is aimed at tackling the digital divide and strengthening citizens' digital competencies. To this end, a series of complementary initiatives – such as trainings, digital hubs etc. – will be launched. Finally, the investment is intended for the creation of a cashless community through the setting up of a cashback scheme to improve product demand and crack down on tax evasion as well as to bring the rate of digital payments in Italy to the EU average within 3 years. In particular, by:

- providing incentives to citizens and businesses aimed at reducing the use of cash and spreading digital-based payment tools; and
- promoting and carrying out communication activities related to such incentives concerning the value of making digital payments.

3. Innovate the Italian public administration by accelerating and strengthening the reforms currently underway and acting in an integrated and systemic way, thereby moving from a cumbersome, slow and bureaucratic administration to a competent, capable and simple PA. The related investments can be grouped into the following four streams:

a) A capable PA: by hiring staff with needed skills and improving the PA recruitment process so as to match the PA's evolving needs.

b) A competent PA: investing in new organizational work models aimed at building and enhancing civil servants' core competence and motivation with an upskilling and reskilling training programme that empowers current public administration staff with the necessary skills, especially with a view to the digital transformation.

c) A simple and connected PA: Simplification of administrative procedures, digitalization of processes and speeding up of complex procedures, with direct and measurable impacts on services for citizens and businesses and positive effects on the private sector's productivity and the attractiveness of the country competent; simplify administrative procedures and digitalize processes.

d) A smart PA: the establishment of territorial hubs for recruitment, training, co-working and remote working.

5 Digital transformation of the tax administration on the national level

The reform of the tax administration is part of the more complex process of digitalizing the PA. The changes forced by the pandemic provide an opportunity to address some of the structural limitations of the current tax administration system, moving away from sequential taxpayer-facing processes and beginning to integrate taxation processes into the systems that taxpayers and businesses use as part of their day-to-day lives. The digitalization of tax services, enhancement of fiscal information assets and simplification of tax obligations can and should be at the centre of these reform efforts, as recently stated by the Italian Revenue Agency's Director at a Senate hearing on 5 May 2021. Therefore, there are a number of unavoidable strategically important steps on the way to the fundamental digitalization of the tax administration. The agility of its people, processes and systems assures that the tax administration can stay aligned with societal and economic changes and respond to altered circumstances, including crises. Such a transformation first requires the development of more digital services based on a taxpayer-centric perspective.

The COVID-19 crisis has already led to significant improvements in services for taxpayers, including through e-filing, e-payment, tax returns partly pre-completed and able to be sent in a digital manner, online self-service tools and targeted help such as online live chats. It has even seen the relaunch of some projects that had become stuck in order to improve the use of digital services themselves: ANPR (National Resident

Population Register), PagoPA (a central node of payments for all PAs), SPID (Digital identity for easy access to digital public services), and the project "IO" (a simpler way for central and local PAs to communicate with citizens, notarize documents and remember deadlines).

In addition, the increased digitalization and development of new analytical tools is significantly increasing the efficiency and effectiveness of the tax administration and helping to reduce the burdens on different taxpayer segments. Developments include:

- the introduction of greater verified reporting through third parties (for example, the integration of information into administration processes coming from financial intermediaries, other parts of government, other taxpayers and other tax administrations);
- the adoption of more reliable reporting systems (for example, the digitalization of invoices, online cash registers etc.); and
- the improved detection of possible non-compliance through better risk assessment modelling, using increasingly large amounts of digital data and advanced analytical techniques.
- Considering that Italy is characterized as a high-tax country with low levels of compliance, these developments could prove effective in increasing voluntary compliance as well as improving the detection of non-compliance.Efforts to increase taxpayers' compliance and to make it easier for them to comply have followed a

path of constant improvement, particularly in the last few years, yet the rapid growth of the sharing and gig-economy platforms is an early manifestation of how changing work patterns and new business opportunities, even through the outsourcing of economic activity, can create revenue-collection issues. In short, the emergence of new business models without a local physical presence poses challenges to tax administrations by increasing the risk of non-compliance. To adapt to this, tax administrations must rethink how to best interact with the different aspects of taxpayers' own natural systems to join individual taxpayers up with potentially multiple sources of income automatically, including in cross-border situations.

Overall, what is really needed is a structural reform that leads to significant behavioural changes among both taxpayers and the tax administration. Co-operative compliance programmes are an effective way of generating such behavioural change and hence for establishing a renewed relationship based on mutual trust and transparency.

In light of the general objectives mentioned above under the NRRP and especially to improve the overall management of tax compliance, the Italian reform gives priority to ensuring access to, and interoperability among, different IT systems, and developing strategies and tools to apply and provide relevant data and information on cross-border activities and transactions. Indeed, one of the digital revolution's many benefits, the most visible and crucial, is the ability to rapidly collect and process information on economic activity. Namely, today tax administrations can collect more information by tracking and recording a vast range and volume of transactions and interactions thanks to their greater storage capacity and computing power.

In this context, cooperation in its wide sense plays a relevant role on multiple levels. First, in relationships among states; here, stronger 'digitalized' administrative cooperation is needed, making the fiscal rules on the exchange of information even more important, if not necessary. Second, investigative cooperation among tax authorities is required, aimed at strengthening and sharing legal instruments and technical skills that increase the ability to control the new value streams. For instance, the Italian Guardia di Finanza has already provided some interesting innovations to help adapt the investigation of the new business models. Third, cooperation between the tax administration and the global taxpayer is crucial. Considering the features of the new business models, the taxpayer will play a central role in determining the business value by declaring to what extent a given 'productive factor' played a noteworthy role in the value chain of his own business activity. Paying taxes will become a more seamless experience over time and integrated into daily life and business activities as much as possible. Natural citizen and business behaviours and systems will increasingly be the starting point of taxation processes. Tax administrations and private sector organizations will collaborate ever more on creating innovative and joined-up services, adding value to the taxpayer, reducing administrative burdens and assuring secure, transparent and highly reliable outcomes.

In sum, the progressive digitalization of information flows allows the Italian tax authority to refine the criteria and techniques for selecting those taxpayers to undergo tax control, with preference for a model of action aimed more at preventing the risks of tax evasion and avoidance rather than trying to clamp them down ex post. Still, fighting evasion is not just a matter of data but requires innovative tools.

In recent years, all over the world, including in Italy, various innovative and increasingly sophisticated tools have been created that are dedicated to analysing the risk of tax non-compliance. With the European Union giving the green light to finance the Italian Revenue Agency project "A data driven approach to tax evasion risk analysis in Italy", a significant step forward in the fight against tax evasion and avoidance will be made. Basically, the Italian revenue agency will introduce, test and use innovative techniques of network analysis, machine learning and data visualization in order to create a new scheme to support the processes of identifying taxpayers at high risk of tax fraud. The project is part of the European programmes in support of structural reforms in response to the COVID-19 emergency.

Through the use of new techniques such as network science, artificial intelligence and data visualization, the Italian tax administration intends to make the most of the vast wealth of data available to it, such as, for a single year, 42 million tax returns, 750 million items of information communicated by third parties, 400 million active financial relationships, 197 million F24 payments, approximately 2 billion electronic invoices and over 150 million registered properties.

Various innovative and increasingly sophisticated tools have been created that are dedicated to analysing the risk of tax non-compliance.

First of all, network science, which assumes that data received can be displayed in the form of networks, will make it easier to bring out indirect and non-evident relationships among subjects (e.g. relations among companies) that might be connected to tax evasion and avoidance schemes. Then, the visual analysis of information will allow the skills of analysts to be enhanced, accelerating and making their process of acquiring and processing data more intuitive and natural. Finally, the key success factor will be the intertwining of human staff and advanced analytical skills and decision-supporting tools such as AI.

All of the steps described in this article represent a paradigm shift in how tax is to be administered in the future. Yet, the process of change is in its early stages. It is the fitting together of the building blocks of the new tax infrastructure over time that will accomplish the more significant benefits of a seamless and frictionless tax administration, including by joining up with other parts of government, the private sector, and across borders.

6 G20 Italy: Tax policies to foster productivity through digitalization

The rise in digitalization, the increased diffusion of digital platforms and adoption of innovative capital offer considerable potential for exiting the pandemic crisis. Boosting productivity growth and distributing the benefits in an inclusive manner are crucial challenges for the country's recovery and are the leitmotiv of the G20's work under the Italian Presidency.

Over the last decade, tax policy reform discussions have moved away from focussing on the link between taxation and economic growth towards tax reform that takes account of both equality and economic growth objectives. Increasingly, tax policy reform recommendations for inclusive growth have recognized that equality and growth can go hand in hand and, where they do not, the impact of trade-offs must be carefully managed. The COVID-19 shock has triggered a strong policy response among G20 countries. Tax policy has an important role to play in enhancing equality through actions to address the distribution of income and wealth. The aim of policies has not only been to help firms and households cope with the crisis, but to promote the digitalization of public and private sector activities, laying the basis for future productivity growth. Attention is now gradually shifting to facilitating the smooth reallocation of resources to the most productive activities where appropriate, while strengthening the social protection safety nets and helping workers to adjust and upgrade (wherever needed) in the transition process. For many countries, this starts with efforts to close the digital divide for firms and households.

Under Italy's G20 Presidency, the Finance Ministers and Central Bank Governors (FMCBGs) endorsed the G20 Menu of Policy Options – Digital Transformation and Productivity Recovery in July 2021, which provides a set of policies to foster productivity through digitalization in different country contexts and seeks to identify areas where the benefits of international cooperation appear to be the strongest.

The first policy is sustaining innovation and the knowledge economy. Digitalization could be complemented by investment in innovation, mainly intangible assets (e.g. R&D, training, management skills and organizational capital), and by better access to communication networks within and across countries. Countries could consider promoting public–private partnerships to catalyse private investments and establish a favourable environment to attract foreign investors while taking steps to ensure the productivity benefits from foreign investment go to the domestic economy, improving links between academia, industry and citizens so as to foster science–industry interaction, and encouraging entrepreneurship.

Second, effective education and training to develop the relevant skills that are needed to adapt to the technological transition. Digitalization generates productivity-enhancing effects but, if not supported with appropriate social protection and labour market policies, can incur potentially large costs in terms of job losses and obsolescent skills, also impairing the convergence of emerging economies. Indeed, digital preparedness helps firms and citizens become 'included' in the digital world and access innovative services. This not only means access to communication infrastructure but also to e-government services as they are important for reaping the productivity benefits connected with digitalization. In this regard, there is a need to create a comprehensive digital government strategy (which includes public investment to support e-government services or new simplified procedures for the purchase of IT goods and services in the PA) able to grant stable and inclusive access to digital services with positive effects on firm-level productivity growth.

Third, supporting the well-regulated diffusion of digital platforms. Countries need to consider some policies considering that digital platforms are strong drivers of innovation and productivity and can play an important role in stimulating consumer demand, improving firms' efficiency and competitiveness, allowing for new business models or modernizing traditional business models. Here, it appears appropriate to: review antitrust policies; evaluate user data portability and interoperability to allow customer mobility between digital service providers while ensuring consumers' privacy protection and security within the domestically applicable legal frameworks; and ensure a level playing field between online platforms and their users. Moreover, countries should encourage closer cooperation among competition authorities to tackle the challenges posed by the growing role of digital platforms.

Under Italy's G20 Presidency, the G20's commitment to encouraging the digital transformation was reaffirmed with a view to providing a guide – through the above-mentioned G20 Menu of Policy options – for policymakers in their efforts to lay the grounds for new digital inclusion strategies in the post-pandemic world. In line with what is highlighted in the G20 Menu of Policy Options for the Future of Work, international cooperation will be critical for harnessing the benefits of digitalization, leading to higher productivity and strong, sustainable, balanced and inclusive growth with due consideration of national circumstances and frameworks.

Under Italy's G20 Presidency, the G20's commitment to encouraging the digital transformation was reaffirmed.

As mentioned, productivity-enhancing reforms have a strong country dimension but, given the international economic integration and the borderless nature of technological progress, significant benefits can flow from knowledge sharing and international cooperation.

7 Final remarks and observations

The unprecedented policy response to the COVID-19 pandemic has been successful in cushioning the crisis' impact. Faced with a serious public health and economic crisis, Member States quickly adopted wide-ranging fiscal support measures. On top of this, EU Member States provided substantial liquidity support to firms in the form of state guarantees and tax deferrals. Monetary policy has complemented the fiscal policy efforts. This joint and coordinated policy response was successful given that the COVID-19 crisis' impact on unemployment, economic and social divergences, corporate insolvencies and non-performing loans has been less drastic than originally anticipated. Based on the analysis of certain official financial documents, this study has shown that Italy has been strongly affected by the epidemic, but that, on the whole, it has withstood the blow from an economic and social point of view as a result of the substantial stimulus measures targeting economic recovery introduced by the Italian government as well as the boost to public and private investments provided by the RRP (in the 2021 Budget version).

The changing economic landscape, due to the increased digitalization and growing relevance of intangible assets, creates challenges yet also offers opportunities for improving tax design policy options to support inclusive and sustainable growth. As discussed in this paper, the structural trends that are shaping the future – including automation and digital transformation – might make it more difficult for tax systems to achieve their equality and economic growth objectives if reforms are not undertaken. Indeed, automation may have a positive effect on productivity but could also lead to further increases in inequality and hold long-term implications for revenues from labour taxes. Digitalization will also pose significant challenges to the way personal tax systems function by facilitating taxpayer mobility along with the rise of new forms of work and types of assets.

Hence, tax policies for inclusive and sustainable economic growth beyond COVID-19 will need to support the efficient allocation of capital and other productive factors by encouraging labour market participation, the development of skills and by increasing business investment, productivity growth and diffusion. The structural trends and challenges necessitate a rethinking of the relationship between tax design, investment and economic growth. All of this may seem a tall order for policymakers. But one thing seems clear. The nature and quality of work are central, and any reform programme must focus on creating higher-quality jobs for more people in more places. Work must be central because it is where many of the chronic and pandemic-related economic challenges intersect: inequality, precarity, and the new informality; geographical disparity; and technological change. The much greater availability of high-quality jobs is also the main yardstick commonly used to measure the success or otherwise of a comprehensive range of policies. During the COVID-19 outbreak, national economies have been knocked out of joint, leaving companies and workers uncertain about the future.

The nudge – or not – of policy can make a big difference to the allocation of capital and the shift of labour into new activities. Capital allocation and

Tax policies for inclusive and sustainable economic growth beyond COVID-19 will need to support the efficient allocation of capital and other productive factors.

profit shifting can be key drivers of productivity dynamics across countries. Firms with access to tax planning opportunities – e.g. more intangible intensive firms – may respond to tax differentials by shifting profits to jurisdictions that offer a tax advantage. Recent evidence also suggests that tax differentials can inhibit the realization of productivity improvements. Reductions in tax differentials through international tax reforms, such as those being advanced under the two-pillar solution, might therefore support the efficient allocation of capital and productivity growth. Within this context, the third G20 FMCBG meeting in July 2021 led to a historic agreement on a stabler and fairer international tax architecture. Ministers and Governors endorsed the key components of the two pillars concerning the reallocation of profits of multinational enterprises and an effective global minimum tax.

While digitalization increases tax evasion tied to new business models led by intangibles, it also provides more opportunities to combat tax fraud and refine the design of tax systems through better use of data. As shown in this paper, tax administrations are increasingly using larger and more integrated data sets, and applying analytical tools and techniques to improve risk management and design for compliance. Fiscal policy can and should harness all of these transformative opportunities and improve those related to artificial intelligence and machine learning to support tax administration processes and services. However, without building a digitally strong tax administration, investing in infrastructure and human digital skills, providing services available to business and citizens, no serious structural reform of the tax system will be possible. The approach focused on the taxpayer (or user more broadly) that is needed requires the public information system to be redesigned by defining the fundamental architectural principles, the interoperability rules of the national infrastructure, and the cooperation model between different ecosystems and platforms. A systemic approach over time, greater investment and the involvement of all relevant players are all important elements for raising the level of digitalization.

Jean Monnet famously stated that "Europe will be forged in crises and it will be the sum of solutions adopted for those crises". Indeed, like in previous crisis episodes, the policy solutions are to be found at the intersection between what economic policy suggests and the political reality and institutions allow, and reflect a mix of principles, flexibility and pragmatism. Still, every crisis has its own characteristics and prompts its own response. This crisis is different, and the policy response, with the Next Generation EU initiative at its heart, is breaking new ground.

The large-scale funding coming from the Next Generation EU, and in particular from the National Recovery and Resilience Plan, will help Member States address the challenges posed by the pandemic, bringing them onto a path of recovery, while making their economies and societies more resilient and better prepared for the future. Resilience, in fact, is the ability to withstand and cope not only with challenges but also to undergo transitions in a sustainable, fair and democratic manner.

The political economy aspects of tax reform are crucial. Significant fiscal changes will not only require good policy design, but effective policy communication and consensus-building if political acceptance is to be secured. The externalities of public finance choices make international dialogue and co-operation imperative to counter the structural challenges. Multilateralism is the best answer to the problems the world faces, as Italian Prime Minister Mario Draghi argued at the G-20 Summit in Rome. In his opening address at the 2021 G20 Summit Mario Draghi underlined the importance of acting together to solve global problems, including the coronavirus pandemic, climate change, growing inequalities and fair and equitable taxation. Citizens' attitudes to taxes will also have an impact on how tax systems can be designed. There is a growing literature that incorporates insights from behavioural economics into the tax policy field, which policymakers should draw upon while reforming tax systems. Providing credible and easy-to-understand information on how tax systems work will be essential for democratic debate and the informed decision-making of citizens.

Most leaders have vowed to 'build back better' and to oversee the reallocation of resources to more COVID-safe, digital, greener and more productive activities. At least implicitly, this entails a commitment to a more active and strategic state role in the economy than most have engaged until recently. Whether many states have the capability, or their leaders the temperament, to govern the economy more actively and more strategically than before is something we are about to find out.

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Chapter 5

Tax and fiscal policy measures in the digital transformation era of the COVID-19 pandemic: A Polish perspective

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1 Introduction

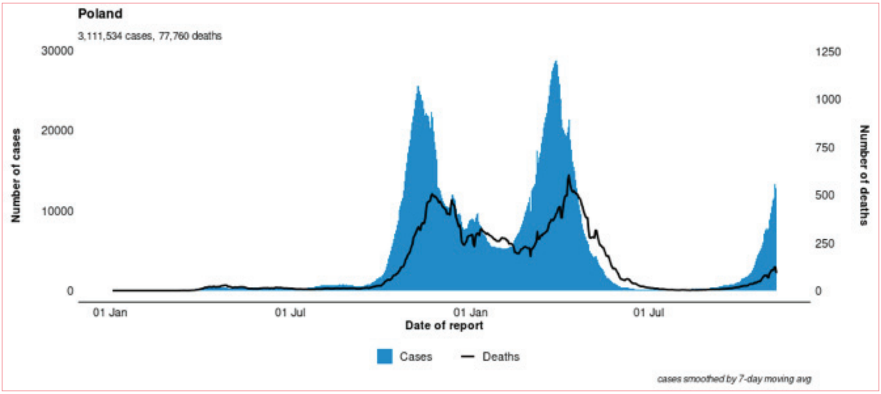
The ongoing COVID-19 crisis has created an unprecedented and challenging environment for both public and private sectors around the world. In response to the pandemic, governments across the globe have developed large fiscal support programmes for businesses and individuals. Sizeable tax and fiscal packages have also been implemented in the European Union, including Poland. Policymakers are navigating largely 'unchartered waters' and there are many risk factors in the sustainability of these programmes. Particular attention must therefore be paid to their coherent, careful and transparent implementation to avoid further short- or long-term disruptions. Further, in the wake of the coronavirus pandemic, digital transformation has become a prerequisite for the continuity of operations in both the public and private sectors, enabling economic agents to act effectively and efficiently in volatile times.

The main aim of this paper is to examine and evaluate the tax and fiscal policy measures implemented in Poland during the COVID-19 pandemic, and to provide guidelines for policymakers in Poland for the efficient and transparent implementation of the COVID-19 emergency policy responses, identifying opportunities for digital solutions in public finance management. The paper is structured as follows. In the second section, the COVID-19 situation in Poland is presented and compared with that in other European Union countries. The third section analyses the current state of fiscal stimulus in Poland during the COVID-19 pandemic and depicts the rationale for the fiscal policy tools implemented and their scope. The fourth section elaborates on the challenges and opportunities for tax and fiscal policy in Poland during the COVID-19 pandemic, focusing on the potential short- and long-term consequences for the Polish economy and broader society. In this section, an attempt to assess the efficiency of the tax and fiscal policy measures is also undertaken from the current macroeconomic perspective. In the fifth section, guidelines for policymakers in Poland are formulated to enhance the sustainability of current measures, including the digital solutions to be applied.

2 The COVID-19 situation in Poland

Poland reported its first COVID-19 case on 4 March 2020 while the first death from COVID-19 occurred a week later on 12 March. The first wave of the pandemic in the spring 2020 was relatively small (less than 1,000 new cases and 40 deaths a day) compared to the subsequent three waves of the pandemic (see Figure 1). The second wave established itself in autumn 2020 (starting in October) and reached a daily maximum of 27,875 cases and 674 deaths in November 2020. The third wave from spring 2021 (starting in March) even surpassed the second wave by a noticeable margin. The current wave in autumn 2021 (that started in October) had exceeded 10,000 cases and 100 deaths per day by the beginning of November (WHO, 2021; Rogalski, 2021).

Figure 1: Number of COVID-19 new cases and deaths in Poland in the period January 2020–October 2021



Other remarks: The figure presents daily data for the total population
Source: WHO, 2021.

Poland belongs to the group of countries significantly affected by the coronavirus pandemic. It is in the second quartile of countries across the globe with the highest cumulative incidence of COVID-19 cases per 100,000 inhabitants. By the end of October 2021, Poland – a country with a total population of 38 million – had reported 3.03 million COVID-19 cases, which translates into a relative ratio of 7,983 cases per 100,000 inhabitants (see Table

1). However, in terms of mortality rate, Poland is already in the top quartile of the world with 7,012 deaths cumulatively by the end of October 2021, which means a relative index of 203 deaths per 100,000 inhabitants. The cases reported in Poland in the last week of October 2021 (the beginning of the fourth wave) indicate a rapidly rising level of incidence of the disease. This should further lead to an increase in the relative indexes. In the last week of October 2021, more than 54,000 people fell ill and 565 deaths were reported, making Poland one of the European Union (EU) leaders in the pandemic severity ranking in this period.

The COVID-19 incidence in the EU is much higher than in the world.

Nevertheless, on a cumulative basis (since the start of the pandemic in 2020) Poland is not in the group of the most affected countries among EU members. The number of COVID-19 cases in Poland per 100,000 inhabitants (the incidence rate) is over 20% lower than the average for the EU (10,298 cases per 100,000 population) and more than 50% below the score for Czechia – the most affected EU country in this respect (16,511 cases per 100,000 population). Compared with the most affected and least affected EU countries, the scope of the COVID-19 pandemic in Poland may be viewed as significant but moderate. The pandemic in Poland is not as advanced as it is in Czechia, but significantly worse than in Finland (see Figure 2).

Still, it should be underlined that the COVID-19 incidence in the EU is much higher than the incidence rate in the world. The median incidence rate in the EU (10,587) is over three times (335%) higher than for the world (3,164 cases per 100,000 population). The same holds for the median mortality rate in the EU that is almost three times (275%) higher than the incidence rate for the world (64 deaths per 100,000 population).

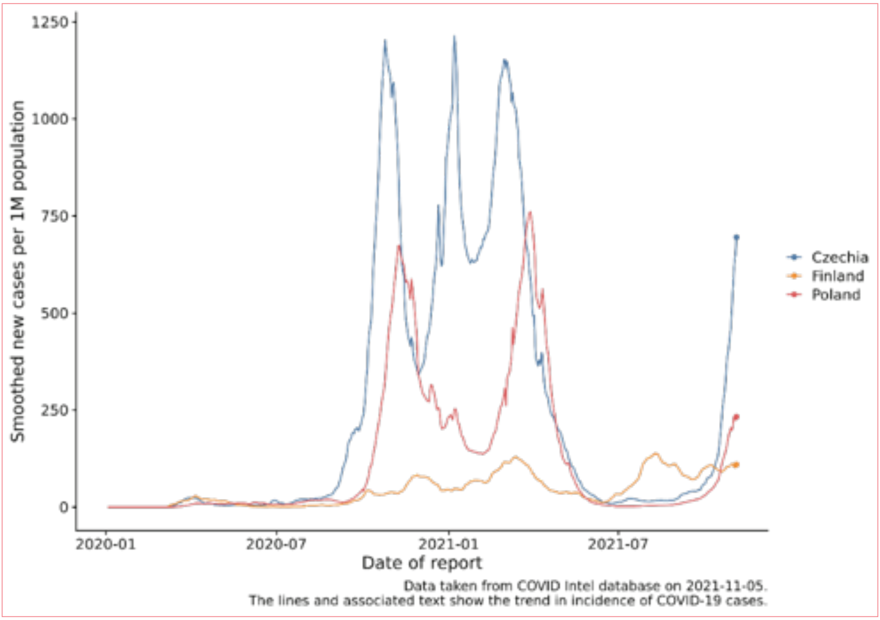
Table 1: The scope of the COVID-19 pandemic in Poland and other EU countries (as measured by cases and deaths) at the end of October 2021

EU country	Cases				Deaths			
	Cumulative total per 100,000 population	Global quartile	Cumulative total (in thousand)	Newly reported in last week of October 2021 (in thousand)	Cumulative total per 100,000 population	Global quartile	Cumulative total	Newly reported in last week of October 2021
Czechia	16,511	Q1	1,766	34.3	288	Q1	30,775	129
Slovenia	16,024	Q1	336	15.9	242	Q1	5,081	21
Estonia	14,702	Q1	195	12.1	116	Q2	1,540	71
Lithuania	14,695	Q1	411	20.5	212	Q1	5,913	244
Cyprus	14,014	Q1	124	1.1	65	Q2	574	6
Luxembourg	13,046	Q1	82	0.7	135	Q2	843	1
Netherlands	12,248	Q1	2,132	49.6	106	Q2	18,411	97
Belgium	11,809	Q1	1,361	30.7	226	Q1	25,994	94
Croatia	11,618	Q1	471	25.5	228	Q1	9,251	191
Latvia	11,528	Q1	220	16.5	171	Q1	3,266	219
Sweden	11,344	Q1	1,172	4.1	145	Q1	15,025	5
France	10,676	Q1	6,944	39.7	177	Q1	115,277	192
Portugal	10,593	Q1	1,091	5.5	176	Q1	18,157	24
Spain	10,587	Q1	5,011	6.2	185	Q1	87,368	34
Austria	9,302	Q1	828	32.6	124	Q2	11,080	84
Ireland	8,976	Q1	446	15.7	109	Q2	5,436	67
Hungary	8,953	Q1	875	24.1	316	Q1	30,881	314
Slovakia	8,898	Q1	486	28.2	239	Q1	13,045	128
Bulgaria	8,667	Q2	602	33.0	345	Q1	23,999	926
Romania	8,562	Q2	1,655	83.9	249	Q1	48,073	3,093
Italy	8,001	Q2	4,772	30.8	221	Q1	132,100	274
Poland	**7,983**	**Q2**	**3,030**	**54.3**	**203**	Q1	**77,012**	**565**
Malta	7,318	Q2	38	0.1	90	Q2	461	1
Greece	6,924	Q2	742	25.8	149	Q1	15,938	310
Denmark	6,660	Q2	388	11.4	47	Q3	2,714	15
Germany	5,540	Q2	4,607	134.5	115	Q2	95,752	635
Finland	2,878	Q3	159	3.7	21	Q3	1,170	1
Average for EU	**10,298**	**Q1**	**1,479**	**27.4**	**174**	**Q1**	**29,449**	**287**
Median for EU	**10,587**	**Q1**	**742**	**24.1**	**176**	**Q1**	**15,025**	**97**
EU as % of world	**335%**	-	**16.2%**	**24.7%**	**275%**	-	**15.9%**	**15.5%**
World	**3,164**	-	**246,594**	**2,993**	**64**	-	**4,998,784**	**49,802**

Other remarks: Quartile Q1 represents the group of the most COVID-19 affected countries in the world, whereas the quartile Q4 group contains the least affected countries.

Source: Own compilation based on WHO, 2021.

Figure 2: Number of COVID-19 daily cases in Poland compared to the most and least affected EU countries in the period January 2020–October 2021 (per 1 million population)



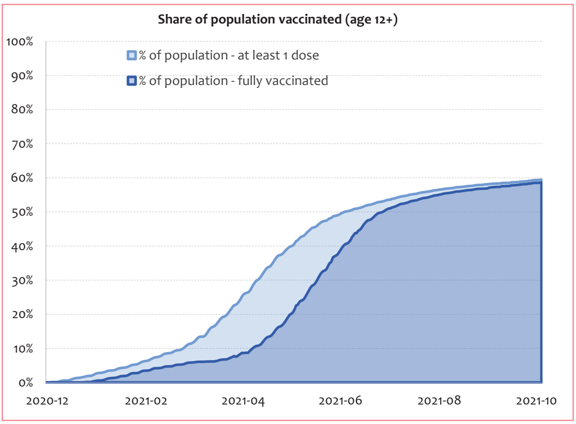
Source: WHO, 2021.

The relatively high mortality rate in Poland compared with the incidence rate is a result of the relatively low vaccination coverage. Although the number of vaccinations in Poland grew considerably between March and June 2021, since then the dynamics have rapidly decelerated (see Figure 3 – upper panel). As of 4 November 2021, 58.6% of the population aged 12 years or more was fully vaccinated (nearly 20 million people). With this score, Poland belongs to the group of EU countries with the lowest vaccination rates. Narrower vaccination coverage can only be observed in Croatia, Slovakia, Romania and

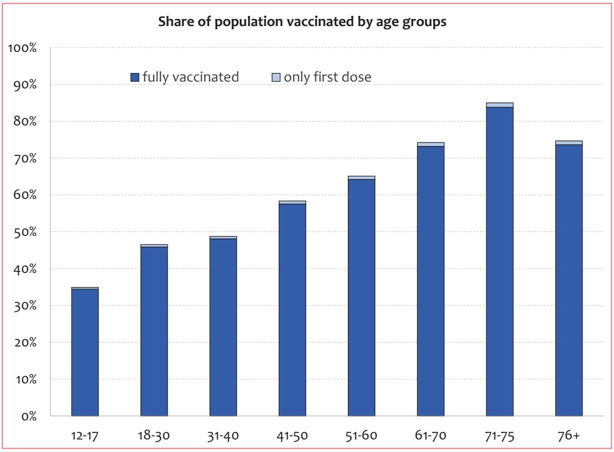
Bulgaria. Poland is therefore far away, in terms of vaccination rates, from EU countries like Malta, Spain, Italy, Denmark, Finland, France or Belgium where over 75% of the population has been vaccinated (see Figure 4).

Vaccination coverage in Poland varies greatly among the age groups. There is a strong positive correlation between demand for vaccines and age. Younger people tend to avoid vaccinations, while older people have expressed considerable interest in being vaccinated. In the population aged 61 years or older, more than 73% are fully vaccinated (with almost 84% coverage in the 71–75 years subgroup). This is mainly because elderly people are exposed to a higher risk of death from COVID-19 and were initially provided with priority access to vaccines. At the other extreme, there are adolescents (aged 12–17) with just a 34% vaccination rate (see Figure 3 – lower panel). The latter is largely affecting the dynamics of the fourth wave of the pandemic since in September 2021 schools in Poland started with on-site classes.

Figure 3: Share of the population vaccinated against COVID-19 in Poland (population aged 12+)

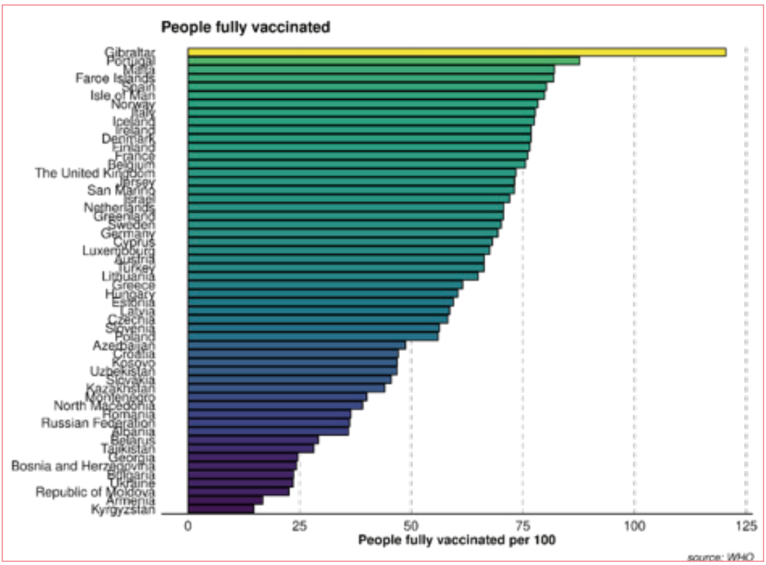


Source: Wistocki & Rogalski, 2021.



Source: Wislocki & Rogalski, 2021.

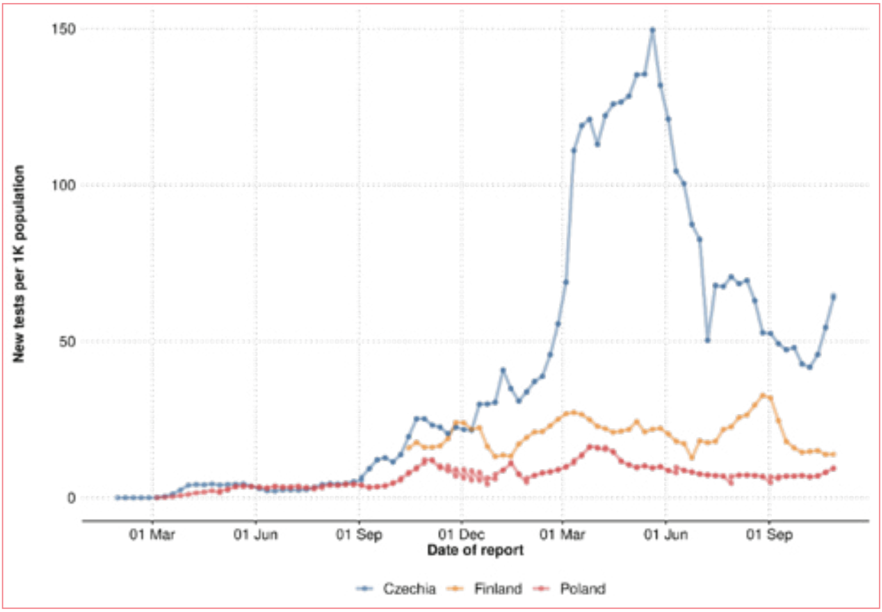
Figure 4: Number of fully vaccinated citizens in Poland and other European countries (per 100 citizens) as at 4 November 2021



Source: WHO, 2021.

Poland performs worse than other EU countries in coronavirus testing compared with both the most and the least affected EU countries. For instance, while the maximum daily level of tests performed per 1,000 population in Czechia reached as high as levels of 150 (15% coverage), in Poland during the pandemic it has never exceeded 20 (2% coverage). Even in the least affected EU country – Finland – the number of tests performed exceeds this for Poland (see Figure 5). This might mean the statistics provided by the Polish government do not fully reflect the severity of the pandemic as some people with the disease are not being tested and hence their disease is not being officially recorded.

Figure 5: Number of COVID-19 new tests in Poland compared to the most and least affected EU countries in the period February 2020–October 2021 (per 1,000 population)



Source: WHO, 2021.

Following the start of the pandemic in March 2020, the Polish government introduced significant restrictions for the operations of businesses, individuals and public entities. These included the closure of borders, public utility entities (such as schools, universities, or public transport), selected industries and workplaces (restaurants, non-essential retail trade, and service outlets), and forbidding of large gatherings, banning entry to parks and forests, or limiting domestic mobility. The lockdown was very broad (stringency index reaching 87% – see Figure 6) and entailed considerable uncertainty about the novel disease.

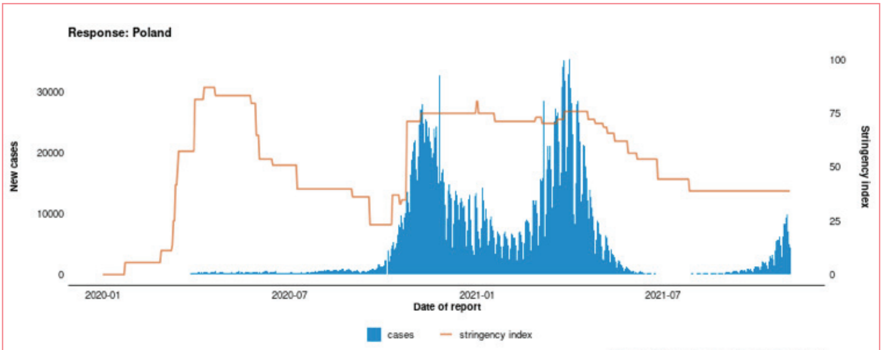
In mid April 2020, the government proposed a four-stage plan to reopen the economy and society. Starting on 20 April, restrictions were gradually lifted by the government and, by August, the stringency index had dropped below 25%. In the first step, shops, parks and forests were reopened and religious gatherings allowed. In the second step, in the first week of May 2020 preschools, hotels, shopping malls were reopened (with some limitations and sanitary constraints), and quarantine rules for cross-border travellers were eased. In the third step, in mid May 2020 restaurants, service outlets (such as hairdressers, beauty services) were reopened, and outdoor sports events with up to 50 people were permitted. In the fourth stage, in late May/early June 2020 primary schools (but only grades 1–3), cinemas, gyms and playgrounds were reopened (with some limitations and sanitary constraints), and outdoor events with up to 150 people allowed, and internal EU borders opened according to EU recommendations (IMF, 2021c; Sobański, 2021a).

However, with the emergence of the second wave in October 2020, the government decided to tighten the counter-epidemic policy again, but this time on a regional basis (grouping counties into 'yellow' and 'red' ones depending on the local severity of the outbreak). Due to the acceleration of the pandemic, by late October 2020, the whole of Poland was classified as a 'red' zone and additional restrictions were announced. These included: distance learning for all pupils, limits in public transport (50% of seats to be occupied), social gatherings for only up to 5 people, a ban on wedding receptions, limits on religious activities, hotels only available for business travel, restaurants only open for takeout/delivery, the closure of cinemas, museums, swimming pools and gyms, the temporary closure of shopping malls, stricter limits in smaller retail stores. What is more, Christmas meetings were limited to five persons and traveling on New Year's Eve was limited. Poland was then in a national quarantine from late December until the end of January, with further restrictions: a 10-day quarantine after entering Poland by public transport, the full closure of hotels, ski resorts, and shopping malls. In February 2021, some restrictions were eased (with shopping malls, hotels, sport and cultural facilities reopened under a sanitary regime and with limits on the audience) (IMF, 2021c).

As a result of rising infections in late February 2021, some restrictions were reintroduced first on a regional basis, and finally in late March across the entire country. The constraints included the closure of kindergartens and nurseries, beauty services and hairdressers, large furniture and hardware shops, a 10-day quarantine for all arriving from abroad (except those from the Schengen Area with a valid negative test or vaccinated). Starting from late April, the restrictions have gradually been lessened again (reflected in the stringency index falling to 39%), beginning with kindergartens and nurseries, beauty services, outdoor sport, hybrid education in grades 1–3 of primary schools. In May, shopping malls, large furniture and hardware stores, cultural institutions, sports facilities were reopened, while in-person education for primary and secondary schools also started (with appropriate sanitary requirements). Public gatherings of up to 50 persons were also allowed, in June further increased to 150 persons (including weddings and other events). Since then, the government, while keeping face mask use obligatory, has gradually increased capacity limits in public transport (to 100%), cultural institutions (to 75%, and/or 1 person per 10 square metres, max. 250 people for outdoor events), religious events (to 75%), nightclubs (to 150 people), fairs and conferences, gyms (to 1 person per 10 square metres), indoor sports facilities (to 75%), outdoor sports events (to 50%), hotels and restaurants (to 75%). As a general rule, fully vaccinated persons are not included in the limits. By the beginning of November 2021, the government has still to decide to impose additional restrictions despite the emergence of the third wave. One reason for that is the belief that vaccinations should make the fourth wave less severe than the previous ones (with lower hospital occupancy). The current regulations apply until 30 November 2021 (IMF, 2021c; SRP, 2021a).

Vaccinations should make the fourth wave less severe than the previous ones.

Figure 6: The government COVID-19 response tracker in Poland in the period January 2020–October 2021



Other remarks: The figure depicts the Oxford COVID-19 Government Response Tracker (OxCGRT) prepared by the Blavatnik School of Government at the University of Oxford, UK. OxCGRT is based on 17 different indicators of government response to the COVID-19 pandemic, including containment, economic, and health system policies.
Source: WHO, 2021; Hale, et al. 2020.

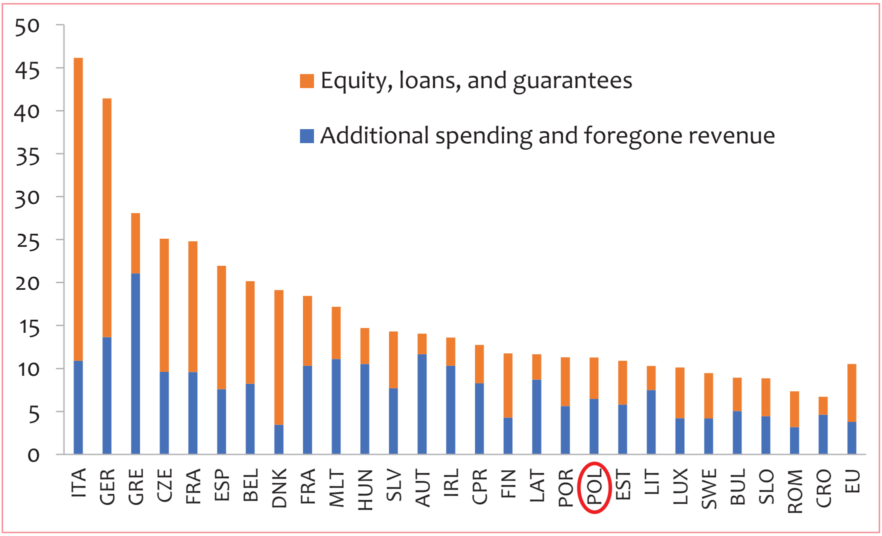
3 The current state of tax and fiscal policy in Poland during the COVID-19 pandemic

In response to the COVID-19 pandemic, the Polish government has designed a sizeable fiscal support programme for businesses and individuals, following in the footsteps of other EU members and world economies (see Chen et al. 2021). The IMF estimates the total COVID-19 fiscal stimulus announced by governments across the globe amounts to USD 16.5 trillion or 15.9% of global GDP (packages announced by early July of 2021 – see Table 2). The European Union accounts for one-quarter of the fiscal packages across the world (USD 4.2 trillion or 27.6% of all EU members' GDP). Almost three-quarters of the EU's COVID-19 fiscal package (USD 3.1

trillion) is concentrated in the three largest EU economies (Germany, France, Italy). This is not surprising given their size, fiscal capacity, and numbers of COVID-19 cases. The total packages implemented in Germany and Italy exceed 40% of GDP, while in France the stimulus is close to 25% of GDP. The size of these packages largely stems from the sizeable guarantees provided by these countries' governments to support economic agents.

With its fiscal package totalling 11.3% of its GDP, Poland belongs to EU countries with moderate packages (see Figure 7). The stimulus amounts to USD 67.2 billion, of which 'above-the-line' measures amount to USD 38.5 billion (6.5% of GDP) and 'below-the-line' measures are USD 28.7 billion (4.8% of GDP).

Figure 7: Size of fiscal policy measures during the COVID-19 pandemic in EU countries (% of GDP)



Source: Own compilation based on IMF, 2021a; IMF, 2021b.

'Above-the-line' measures are provided by the Polish government through standard budget channels, including additional public spending and foregone public revenues (such as tax cuts or other relief). These measures were initially economy-wide (see Sobański, 2021a), but since the second wave of the pandemic they have been limited to industries most affected by the partial lockdown (including retail, restaurants, fairs, hospitality, leisure, and transport).

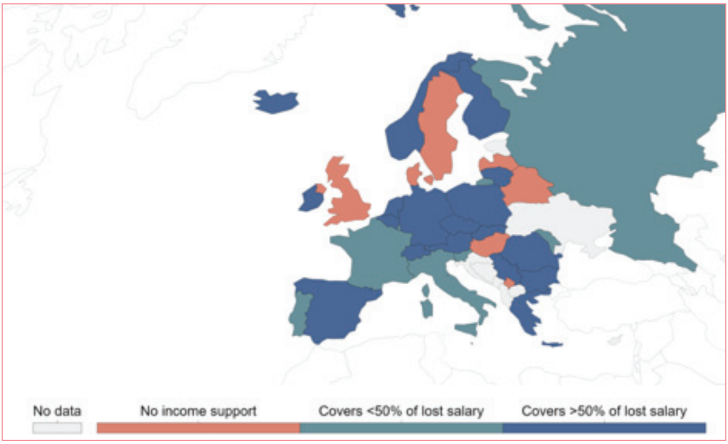
Additional public spending by the Polish government in the health sector is as large as USD 3.8 billion (0.6% of GDP) and has been directed to patient care, telemedicine and digitalization, and healthcare infrastructure improvements. The increased spending or foregone revenues in other sectors are even bigger and amount to USD 34.7 billion (5.8% of GDP). Additional spending of USD 29.4 billion was allocated to:

- wage subsidies for employees of affected businesses and (in the event of work stoppages or reduced working time);
- a 'solidarity benefit' for those who have lost jobs during the pandemic and a rise in the unemployment benefit;
- care allowances for children due to the closure of schools;
- tourism vouchers for children to be spent at hotels in Poland;
- the monthly benefit for self-employed individuals;
- a non-returnable portion of the Polish Development Fund's provision of liquidity loans and interest-rate subsidies;

- subsidies for the fixed costs of SMEs (in the most affected industries); and
- a voucher for teachers to cover IT expenses.

The foregone public revenues amount to USD 5.3 billion and include social insurance contributions covered for 3 months by the government for micro-businesses (up to 9 employees) in full, and at 50% for mid-size companies (employing 10 to 49 employees). In addition, the government implemented measures to temporarily support the liquidity of businesses by allowing them to pay taxes or social contributions later or to pay them in instalments (deferring public tax revenue or accelerating pubic spending). In terms of income support, Poland belongs to those EU countries with the largest governmental contributions (see Figure 8).

Figure 8: Income support during the COVID-19 pandemic by governments in Poland and other European countries (as at 31 October 2021)



Source: Our World in Data, 2021 based on Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford.

'Below-the-line' measures are non-standard tools that include equity injections or loans provided by the government, and contingent governmental liabilities. The Polish government has provided liquidity loans for businesses amounting to USD 9.7 billion (1.6% of GDP) via the Polish Development Fund. It has also given micro-loans to micro-entrepreneurs through the Polish Development Fund and credit guarantees for medium and large companies via the National Development Bank (BGK), totalling USD 19.0 billion (3.2% of GDP).

Table 2: Fiscal measures in Poland and other EU countries in response to the COVID-19 pandemic, announced by governments between 1 January 2020 and 5 June 2021

EU country	Total measures as % of GDP	Total measures in billion USD	Above-the-line measures (% of GDP)				Below-the-line measures (% of GDP)			
			Additional spending or foregone revenues			Accelerated spending / deferred revenue	Subtotal	Equity injections or loans	Contingent liabilities	
			Subtotal	Health sector	Non-health sector				Guarantees	Quasi-fiscal operations
Italy	**46.2**	**869.9**	**10.9**	1.2	9.7	0.4	**35.3**	0.2	35.1	-
Germany	**41.4**	**1,577.3**	**13.6**	1.8	11.8	-	**27.8**	3.0	24.8	-
Greece	**28.1**	**51.8**	**21.1**	0.6	20.5	1.0	**7.0**	3.5	3.5	-
Czechia	**25.1**	**61.2**	**9.6**	2.7	6.9	0.6	**15.5**	0.0	15.5	-
France	**24.8**	**651.7**	**9.6**	1.4	8.2	3.0	**15.2**	0.7	14.5	-
Spain	**22.0**	**281.0**	**7.6**	1.3	6.3	0.0	**14.4**	0.1	13.4	0.9
Belgium	**20.1**	**103.5**	**8.2**	2.0	6.2	2.9	**11.9**	0.4	11.5	-
Denmark	**19.1**	**67.9**	**3.5**	0.0	3.4	13.7	**15.7**	12.1	3.5	-
Netherlands	**18.4**	**168.1**	**10.3**	2.1	8.2	1.6	**8.1**	-	8.1	-
Malta	**17.2**	**2.6**	**11.1**	1.0	10.1	0.9	**6.1**	-	6.1	-
Hungary	**14.7**	**22.8**	**10.5**	4.5	6.0	-	**4.2**	-	4.2	-
Slovenia	**14.3**	**7.7**	**7.7**	0.8	6.9	0.9	**6.6**	1.9	4.7	-
Austria	**14.0**	**60.5**	**11.7**	0.7	11.0	-	**2.4**	-	2.4	-
Ireland	**13.6**	**56.8**	**10.3**	1.2	9.1	0.7	**3.3**	1.9	1.4	-
Cyprus	**12.7**	**3.0**	**8.3**	0.8	7.5	1.5	**4.5**	1.9	2.5	-
Finland	**11.8**	**31.9**	**4.3**	1.5	2.8	0.9	**7.5**	0.7	5.1	1.7
Latvia	**11.7**	**4.0**	**8.7**	2.0	6.7	0.0	**3.0**	0.7	2.3	0.0
Portugal	**11.3**	**26.1**	**5.6**	0.9	4.7	0.5	**5.7**	-	5.7	-
Poland	**11.3**	**67.2**	**6.5**	**0.6**	**5.8**	**-**	**4.8**	**1.6**	**3.2**	**-**
Estonia	**10.9**	**3.0**	**5.8**	1.6	4.2	-	**5.1**	3.8	1.3	-
Lithuania	**10.3**	**5.7**	**7.5**	2.0	5.5	2.9	**2.8**	0.8	2.0	-
Luxembourg	**10.1**	**7.4**	**4.2**	0.5	3.7	7.2	**5.9**	0.6	3.9	1.4
Sweden	**9.5**	**50.9**	**4.2**	0.8	3.4	6.8	**5.3**	0.2	5.0	-
Bulgaria	**8.9**	**6.2**	**5.0**	1.4	3.6	0.5	**3.9**	1.4		2.5
Slovak Republic	**8.8**	**9.2**	**4.4**	0.3	4.2	0.6	**4.4**	0.0	4.4	-
Romania	**7.3**	**18.3**	**3.2**	1.2	1.9	0.2	**4.2**	0.2	4.0	-
Croatia	**6.7**	**3.8**	**4.6**	0.5	4.1	1.1	**2.1**	0.2	1.9	-
European Union	**10.5**	**1,361.4**	**3.8**	0.0	3.8	-	**6.8**	6.2	0.6	-
Total EU (USD billion)	**4,219.5**	**4,219.5**	**1,517.8**	218.4	1,299.4	221.7	**2,701.7**	214.0	2,469.0	18.7
Total EU (% of GDP)	**27.6**	**27.6**	**9.9**	1.4	8.5	1.5	**17.7**	1.4	16.2	0.1
EU as % of world	**25.5**	**25.5**	**14.6**	15.0	14.6	28.7	**44.1**	55.1	60.9	1.1
World (% of GDP)	**15.9**	**15.9**	**9.7**	1.4	8.2	0.9	**6.2**	0.4	4.1	1.6

Other remarks: COVID-19-related fiscal measures for implementation in 2020, 2021 and beyond. The totals for the EU and the world do not include measures announced by the European Union because they cover expenditures by member countries (they are already included individually at the member-state level). Accelerated spending and deferred revenue do not count towards the total measures as they only have a temporary effect.

Source: Own compilation based on IMF, 2021a.

4 Challenges and opportunities for tax and fiscal policy in Poland during the COVID-19 pandemic

The COVID-19 fiscal packages across the European Union seem intuitive as governments need to counteract the negative economic effects of the pandemic. However, they pose a serious challenge to the long-term fiscal sustainability of the Member States, including Poland. First, in general, the 'above-the-line' measures raise borrowing needs in the short term and impact the public budget balance and government debt. Only the government's support in the form of liquidity provision (through accelerated spending or deferred tax revenue) increases the budget deficit and government debt just temporarily (as these measures lead to a financing need when being implemented, but eventually they are repaid by taxpayers in the future). Second, although 'below-the-line' measures in the form of equity injections or loans provided do not impact the public budget, they increase the government debt when undertaken. Policymakers need to borrow funds for these measures, yet they are to be repaid to the government. Therefore, the increase in the public debt is transitory (unless taxpayers are given concessions and part of the loan is written off). In turn, guarantees to economic agents constitute a contingent liability, although they do not increase the budget deficit and the government debt in the short term. Still, they might lead to a rise in government debt in the future if the beneficiary calls on the guarantee (see IMF, 2020).

The needs stemming from the anti-crisis stimulus have led to an unprecedented deterioration of the fiscal stance in Poland. To ensure fiscal space for the fiscal packages during the pandemic, the Polish government decided to temporarily freeze the 'expenditure rule' (Article 112aa of the Public Finance Act; see Sobanski, 2021b). General government expenditure grew from 41.8% of GDP in 2019 to 48.7% of GDP in 2020, while revenue only marginally increased to 41.7% of GDP in 2020. As a result, the general government's overall deficit rose from 0.7% of GDP to 7.0% (2020 compared to 2019; see Table 3). The extent of deterioration of the fiscal stance in Poland in the first pandemic year was similar to that for the entire European Union, where the deficit rose from 0.5% of GDP to 7.0%. The IMF expects the expenditure in Poland will still be at an elevated level of 45.2% of GDP in 2021 (marginally above the average for advanced countries of 44.8%), while government revenue is forecast to fall by 0.8 p.p. to 40.9% of GDP in 2021 (as compared with 2020). Consequently, a relatively sizable government budget deficit of 4.2% of GDP is still estimated for 2021. Nevertheless, the fiscal issues are less severe than those projected for the entire EU, where the deficit is supposed to rise further to 7.2% of GDP.

The extent of deterioration of the fiscal stance in Poland in the first pandemic year was similar to that for the entire European Union.

Table 3: The trend in the public budget balance in Poland and other EU countries during the COVID-19 pandemic and beyond

EU country	Change in the overall balance ratio 2021/2019		General government overall balance (% of GDP)							
	p.p.	EU quartile	2019	2020	2021	2022	2023	2024	2025	2026
Malta	-12.0	Q1	0.4	-9.9	-11.6	-6.3	-4.7	-3.4	-3.2	-2.8
Greece	-10.5	Q1	0.2	-10.5	-10.2	-4.3	-2.8	-2.4	-2.0	-1.6
Italy	-8.7	Q1	-1.6	-9.5	-10.2	-4.7	-3.5	-2.9	-2.6	-2.4
Netherlands	-8.6	Q1	2.5	-4.3	-6.1	-2.0	-1.1	-0.5	-0.1	0.2
Czechia	-8.3	Q1	0.3	-6.1	-8.0	-5.5	-4.8	-4.1	-3.5	-3.0
Germany	-8.3	Q1	1.5	-4.3	-6.8	-1.8	-0.4	0.0	0.5	0.5
Latvia	-8.2	Q1	-0.4	-3.9	-8.6	-3.6	-0.6	-0.3	-0.1	0.0
Slovenia	-7.4	Q2	0.4	-8.3	-7.0	-3.8	-2.2	-1.2	-0.8	-0.4
Cyprus	-6.6	Q2	1.5	-5.7	-5.1	-1.4	-0.7	0.0	0.7	1.0
Austria	-6.4	Q2	0.6	-8.8	-5.8	-2.9	-1.8	-0.9	-1.0	-1.0
Slovak Republic	-6.2	Q2	-1.3	-6.1	-7.5	-4.0	-3.2	-2.2	-1.9	-2.0
Denmark	-5.9	Q2	4.1	-0.6	-1.9	0.1	-0.4	-0.3	-0.2	0.0
France	-5.9	Q2	-3.1	-9.2	-8.9	-4.7	-3.9	-3.6	-3.4	-3.4
Spain	-5.8	Q3	-2.9	-11.0	-8.6	-5.0	-4.4	-4.2	-4.2	-4.3
Ireland	-5.6	Q3	0.3	-5.0	-5.3	-3.4	-2.2	-2.0	-1.5	-1.5
Lithuania	-5.5	Q3	0.3	-7.4	-5.2	-2.7	-1.4	-0.8	-0.4	-0.3
Belgium	-5.1	Q3	-1.9	-9.4	-7.0	-4.4	-4.6	-4.8	-4.8	-5.0
Portugal	-4.9	Q3	0.1	-5.7	-4.8	-3.0	-2.2	-1.5	-1.4	-1.3
Hungary	-4.5	Q3	-2.1	-8.1	-6.6	-5.9	-3.0	-2.3	-1.4	-0.6
Croatia	-4.4	Q3	0.3	-7.4	-4.1	-2.7	-1.7	-1.0	-0.3	-0.2
Luxembourg	-3.7	Q4	2.4	-4.1	-1.3	-0.3	0.0	0.1	0.1	0.1
Finland	-3.6	Q4	-1.0	-5.5	-4.6	-2.6	-1.9	-1.8	-1.7	-1.6
Poland	**-3.6**	**Q4**	**-0.7**	**-7.0**	**-4.2**	**-1.9**	**-1.9**	**-1.9**	**-1.9**	**-1.9**
Estonia	-3.4	Q4	0.5	-4.9	-2.9	-2.4	-1.7	-1.0	-0.3	0.3
Sweden	-3.1	Q4	0.5	-3.1	-2.6	-0.8	-0.3	0.1	0.3	0.3
Bulgaria	-2.7	Q4	-1.0	-3.0	-3.7	-3.0	-1.5	-0.6	-0.3	0.0
Romania	-2.1	Q4	-4.6	-9.6	-6.7	-5.6	-5.6	-5.5	-5.3	-5.1
European Union	**-6.7**	-	**-0.5**	**-7.0**	**-7.2**	**-3.3**	**-2.4**	**-2.0**	**-1.7**	**-1.6**
Advanced economies	**-5.8**	-	**-3.0**	**-10.8**	**-8.8**	**-4.8**	**-3.6**	**-3.2**	**-3.1**	**-3.0**

Other remarks: General government sector (nonfinancial public sector) includes central government, local government, social security funds, and nonfinancial public corporations. IMF estimates start after 2019 (for Austria, Lithuania, Czechia, the Netherlands, the Slovak Republic, and Slovenia), or after 2020 (for remaining countries).
Source: Own compilation based on IMF, 2021d and IMF, 2021e.

As a result of the sizeable government budget deficits in the COVID-19 era, public debt in the EU members is projected to reach 93.1% of GDP by the end of 2021 compared with 79% of GDP 2 years earlier (see Table 4). The situation in this respect, however, varies considerably across the EU. In countries like Spain, Greece or Italy, the increase in the ratio of public debt to GDP is expected to exceed 20 percentage points (p.p.). In general, EU countries that already had elevated debt levels before the pandemic (close or even more than 100% of GDP) are expected to perform worse and face larger debt increases due to the fiscal stimulus. This might pose a long-term serious challenge for these countries and the whole EU. International investors might view these indebtedness levels as posing too much risk, which might create tensions in the balance of payments and problems with finding external financing, subsequently forcing an accelerated fiscal consolidation with adverse effects for the economic recovery after the pandemic.

Although based on the estimated increase in the public debt ratio Poland is in the last quartile of EU countries, the change is still significant and worrisome. The debt ratio is expected to rise by 9.9 p.p. from 45.6% at the end of 2019 to 55.5% at the end of 2021. This trend challenges the Polish government. It should be pointed out that the actual government debt of 57.5% of GDP at the end of 2020 is close to the 60% safety threshold prescribed by Article 216 of the Polish Constitution as the maximum level allowed. Another constraint is Article 86 of the Public Finance Act, which prescribes a further threshold for public debt at 55% (as measured by national methodology). If this rule is breached, the government is obliged to eliminate the fiscal budget deficit and freeze public sector wages in the subsequent year. This scenario would be extremely harmful to the Polish economy in the COVID-19 era. It should be stressed that, at the same time, the external limits under the EU's Stability and Growth Pact are temporarily suspended, thereby not constraining the government (see Sobański, 2021b).

The Polish government is attempting to solve this problem by applying a methodological approach to debt statistics that differs from the approach used by the European Union. The debt financial instruments of significant public issuers such as the National Development Bank, Polish Development Fund, and National Road Fund are not officially presented as government debt. These public institutions incurred a large debt of around USD 30 billion in 2020 (5% of GDP) to fund the economic stimulus. As a result, using the national standards the Polish government estimates the public debt at only 48% of GDP at the end of 2020, as compared with 57.5% according to the EU's methodology.

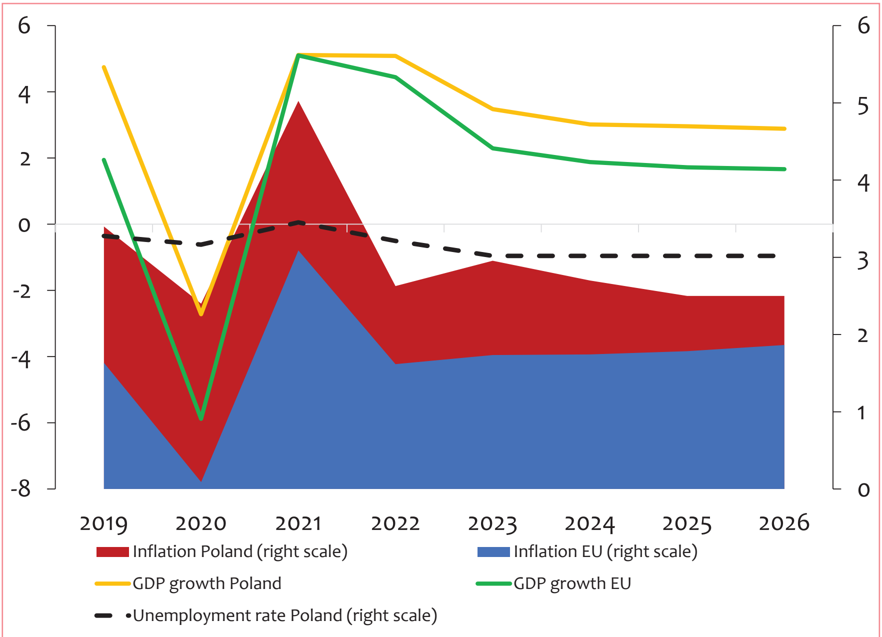
Table 4: The trend in the public gross debt in Poland and other EU countries during the COVID-19 pandemic and beyond

EU country	Change in the gross debt ratio 2021/2019		General government gross debt (% of GDP)							
	p.p.	EU quartile	2019	2020	2021	2022	2023	2024	2025	2026
Spain	24.7	Q1	95.5	119.9	120.2	116.4	116.2	116.3	116.8	117.5
Malta	22.4	Q1	40.6	53.3	63.0	65.3	66.5	66.4	65.9	65.4
Greece	21.8	Q1	184.9	211.2	206.7	199.4	192.4	188.2	184.0	179.6
Italy	20.2	Q1	134.6	155.8	154.8	150.4	149.4	148.6	147.5	146.5
France	18.2	Q1	97.6	115.1	115.8	113.5	114.6	115.4	116.2	116.9
Cyprus	17.0	Q1	94.0	119.1	111.0	103.7	99.3	92.9	88.9	83.4
Belgium	15.3	Q1	98.1	114.1	113.4	112.9	114.0	115.8	117.7	119.7
Czechia	15.0	Q2	30.0	37.8	45.0	47.9	50.3	52.0	52.9	53.7
Romania	14.3	Q2	36.8	49.8	51.1	52.9	54.9	57.0	58.8	60.4
Croatia	14.2	Q2	72.8	88.7	87.0	83.6	80.3	77.1	74.0	70.7
Portugal	14.2	Q2	116.6	135.2	130.8	125.7	122.8	119.9	117.1	114.7
Austria	13.7	Q2	70.5	83.2	84.2	81.1	79.8	78.0	76.1	72.2
Germany	13.3	Q2	59.2	69.1	72.5	69.8	68.0	65.9	63.4	60.9
Slovak Republic	13.1	Q3	48.2	60.3	61.4	62.0	60.1	58.3	57.3	56.8
Finland	12.7	Q3	59.5	69.5	72.2	72.2	73.6	74.4	74.6	75.1
Slovenia	11.6	Q3	65.6	79.8	77.2	74.9	73.0	70.6	68.0	65.1
Lithuania	11.5	Q3	35.9	47.1	47.4	45.5	43.7	41.7	39.5	37.6
Estonia	11.4	Q3	8.6	18.5	20.0	21.4	22.4	22.6	22.1	21.0
Hungary	11.1	Q3	65.5	80.4	76.6	75.6	73.1	70.8	68.4	65.3
Netherlands	10.6	Q3	47.4	52.5	58.1	56.2	54.8	53.1	51.2	49.2
Latvia	10.6	Q4	37.0	43.5	47.6	47.1	44.9	42.7	40.4	38.2
Poland	**9.9**	**Q4**	**45.6**	**57.5**	**55.5**	**53.3**	**52.1**	**51.3**	**50.6**	**50.1**
Bulgaria	6.6	Q4	18.4	23.6	25.0	26.1	26.7	25.8	24.6	23.4
Denmark	5.2	Q4	33.6	42.1	38.8	38.5	38.7	38.7	39.1	39.1
Sweden	4.8	Q4	34.9	37.3	39.6	39.9	39.0	37.9	36.3	34.6
Luxembourg	4.3	Q4	22.0	24.8	26.3	26.7	26.8	26.6	26.4	26.3
Ireland	0.1	Q4	57.3	58.5	57.4	58.8	58.0	57.3	56.1	54.7
European Union	**14.1**	-	**79.0**	**91.9**	**93.1**	**90.7**	**89.8**	**88.9**	**87.7**	**86.4**
Advanced economies	**17.8**	-	**103.8**	**122.7**	**121.6**	**119.3**	**119.3**	**119.1**	**118.8**	**118.6**

Other remarks: see comments in Table 3.
Source: Own compilation based on IMF, 2021d and IMF, 2021e.

From the macroeconomic point of view, the response of policymakers in Poland to the novel coronavirus crisis seems to have so far brought the intended effects, especially when analysed in relative terms. The broad support for the entire economy in the early phase, and then for selected industries, seem to have acted efficiently as a buffer against a severe GDP decline. The economic downturn in Poland in the first year of the pandemic was much narrower than for the entire EU (in 2020 GDP fell by 2.3% in real terms compared with a drop of 5.9% for the EU – see Figure 9). Moreover, already the rate of economic growth projected for 2021 (5.1%) exceeds this realized in 2019 (4.7%). Consequently, GDP per capita in Poland is expected to reach 77% of the EU's average in 2021 (3 p.p. more than in 2019). The path for the unemployment rate also indicates the policymakers' objectives will be realized. In contrast to expectations, the unemployment rate for the first year of the pandemic slightly declined (by 0.1 p.p. from 3.3% in 2019), and the rate projected for 2021 (3.5%) reflects the quite positive macroeconomic trends. On the downside, the return to the path of economic growth in 2021 is associated with the significant acceleration of inflation to levels not seen in Poland in the last two decades. The inflation forecast for 2021 is 5.1%, while in October the inflation was 6.8% annually. With such a trend, inflation of 10% in early 2022 is not impossible. In this respect, the European Union performs better than Poland with prices rising by just 3.1% in 2021.

Figure 9: Macroeconomic indicators for Poland and the EU during the COVID-19 pandemic and beyond



Other remarks: Growth in GDP measured in constant prices (left scale, %). Inflation is measured by consumer prices at the end of the year (right scale, %). Official unemployment rate measured by the National Statistics Office in Poland (right scale, %).
Source: Own compilation based on IMF, 2021d and IMF, 2021e.

Driven by the unparalleled crisis and fiscal stimulus, and the resulting burden on the fiscal capacity, the Polish government has decided to overhaul Poland's taxation system. The lesson from the crisis has been used as an opportunity and a catalyst for change in economic and tax regulations. The reform has been named the Polish Deal, paraphrasing the New Deal implemented in 1933 in the USA by President Franklin D. Roosevelt in response to the Great

Depression. The Polish government claims that the Polish Deal aims at rebuilding Poland after the pandemic and making the Polish economic and social system more equitable and crisis-proof. The amount to be spent on the programme should be as high as around USD 160 billion until 2030 (USD 18 billion annually). The main pillars of the programme are a rise in healthcare funding to 7% of GDP and an in-depth overhaul of the taxation system. The Polish Parliament passed a bill amending the Personal Income Tax Act, the Corporate Income Tax Act, and other acts on 29 October 2021. The key taxation changes starting from 2022 are as follows (KPMG, 2021; PWC, 2021; SRP, 2021b):

- healthcare contributions are not to be tax-deductible any longer;
- healthcare contributions by self-employed to be calculated on a pro-rata basis to income (as occurs currently for employment contracts);
- 'middle-class relief' for contractors and self-employed to neutralize the negative effect of the revoking of the deductibility of health insurance contributions;
- increasing the PIT income tax-free allowance to PLN 30,000 annually (USD 7,500), which is close to the thresholds applied in Western European countries such as Germany or France;
- raising the threshold for the PIT income bracket taxed at 32% from PLN 85,000 to 120,000 (USD 30,000), with the first bracket still taxed at 17%;
- tax-exempt pensions of up to PLN 2,500 (USD 600);

- 0-PIT for large families (raising at least four children, with revenue of up to PLN 85,000 annually);
- additional subsidies for children aged 1–3 years; and
- innovation-targeted tax reliefs for CIT taxpayers.

The government claims that around 18 million Poles should pay lower taxes under the Polish Deal. On one hand, taxpayers with lower income should benefit but, on the other, the tax system will be more progressive, and richer citizens will have fewer options for tax optimization. The new administrative burdens put on businesses by the new law within such a short period might create additional costs for them and impede their vivid growth that is so desired on the way out of the pandemic.

The government claims that around 18 million Poles should pay lower taxes under the Polish Deal.

5 Policy recommendations for Poland in the digital transformation era of the COVID-19 pandemic

The aim of the current COVID-19 emergency tax and fiscal policy responses implemented in Poland is to actively drive the economy out of the economic crisis. The following guidelines should streamline the sustainability of the current government policy.

First, the clarity of roles and responsibilities in Poland's public sector should be secured and maintained. While the distinction between the general government and the rest of the Polish economy is clear, there are some issues with the reporting operations of selected extra-budgetary state institutions like the National Development Bank, Polish Development Fund, and National Road Fund. Although they play an important role in the implementation of fiscal policy during the COVID-19 crisis, they are excluded from public debt statistics under the national methodology. Such recourse to 'creative accounting' practices worsens the transparency of government operations and the roles of public institutions. This distorts the picture and understates the government deficit and debt as expenditures are reclassified. Therefore, uniform rules for measuring government debt in Poland should be applied according to EU regulations to avoid 'creative accounting' and confusion among economic agents. A single set of transparent national rules for recording and presenting public debt in line with the EU methodology and fixed safety thresholds for the long term are advised. Fiscal safety rules improve the country's credibility only if transparent and steady. It is also recommended that policymakers should not be capable of circumventing the safety rules through ad hoc reporting adjustments driven by short-term interests. This is especially important nowadays when the probability of crossing the safety threshold for the public debt of 60% of GDP prescribed by the Polish Constitution is higher than ever as the accommodative fiscal policy continues and the Polish zloty depreciates somewhat. Since more than one-quarter of Poland's public debt is denominated in foreign currencies, even the accounting measures applied by the government might not be enough to circumvent a parliamentary decision on debt thresholds or use of an 'exit clause' through a constitutional state of emergency. The focus should, however, be placed by policymakers on the design of the fiscal framework for the long term. A fiscal transparency portal as an example of an e-government initiative would provide considerable support in this respect. It could increase the fiscal transparency of the authorities through open government budget data which, in turn, would stimulate citizens' participation as they would obtain easy access to information on government activities, including their present and future implications. The government could disseminate fiscal data prepared in accordance with the EU's regulations and over a transition period provide a clear explanation of the conversion to the data under the national methodology. This move could become integrated into the rising trend of digitalization in public administration during the pandemic (see Aristovnik et al., 2021).

Second, as the national vaccination programme should continuously advance to achieve herd immunity against COVID-19 in Poland, the government is recommended to undertake new promotional activities to raise awareness and convince citizens. Poland's vaccination coverage of below 60% is one of the lowest in the European Union and still well below the level allowing for herd immunity against COVID-19. This is particularly important as the onset of the fourth wave, beginning in late October 2021, indicates that the coronavirus (and its different variants) is probably going to stay active for a longer period. It seems the vaccination programme will need to have a revolving nature and thus the nation's awareness should be supported continuously. Since the lowest vaccination coverage is observed in the younger adult population of Poland (34% for those aged 12–17 and less than 50% for 18–40), the government is recommended to reach this group and raise its awareness through digital tools like social media. This seems extremely important as the fourth wave of the pandemic has particularly established itself among pupils in schools (with 1 in 10 schools already operating in early November 2021 under a hybrid system). The government ought also rethink and finally allow employers to obtain access to information on whether their employees are vaccinated or not. This should allow businesses to organize their operations to decrease the infection risk for the well-being of the whole society. In addition, because high vaccination coverage does not fully guarantee the spread of the virus is contained, the testing policy ought to be extended. In this regard, Poland performs worse than other EU countries compared with both the most and the least affected EU countries. The maximum daily level of tests performed per 1,000 population during the pandemic at less than 20 (2% coverage) is insufficient to recognize the share of the infected population, bring the outbreak statistics closer to the actual numbers and act upon them, and thereby contain the spread of the coronavirus. For its testing policy, Poland should in stead follow in the footsteps of France (with a maximum testing coverage as high as 30%) or Czechia (15%). The government should remember that without containing further waves the costs of potential lockdowns could be difficult to bear given the current level of public debt, the budget deficit, and the growing inflation putting upward pressure on interest rates.

Last but not least, the government should thoroughly address the worries about the Polish Deal being expressed by businesses. The associations of entrepreneurs in Poland are not satisfied with the new law as they claim it brings the largest increase in taxes for businesses in Poland's history. They are afraid the new regulations might again raise the need for law interpretations and initiate a big wave of disputes between taxpayers and tax authorities. The vacatio legis is unacceptably short for the new regulations that come into effect from 1 January 2022. Assuming the president signs the bill in November 2021, businesses will have less than 2 months to adjust their systems and make necessary reorganizations. The new law was drafted by the government rapidly and the general principles were presented to the public no earlier than May 2021. The government should have widely discussed and consulted the tax proposals with business representatives. As a general standard, entrepreneurs should also have been given sufficient time to familiarize themselves with new 'rules of the game'. As the new bill has already been passed by the Parliament, now all that remains for the government is to lower the resulting risk for businesses through appropriate informative campaigns. This can be facilitated by tax transparency portals providing easy access for entrepreneurs to clear and coherent tax law interpretations and application examples.

In terms of mortality rate, Poland is already in the top quartile of the world, probably due to the relatively low vaccination coverage (around 60%).

6 Conclusion

Poland, like other European Union countries, has been severely affected by the coronavirus pandemic. The COVID-19 incidence and mortality rates in the EU are three times higher than for the world. The first wave of the pandemic in Poland in spring 2020 was relatively small compared to the next three waves of the pandemic observed in 2020 and 2021. Poland falls in the second quartile of countries across the globe with the highest cumulative incidence of COVID-19 cases per 100,000 inhabitants. However, in terms of mortality rate, it is already in the top quartile of the world, probably due to the relatively low vaccination coverage (around 60%). Still, on a relative basis, the situation is even worse in many other EU members. There is a strong positive correlation in Polish society between vaccination coverage and age, with younger people more frequently tending to avoid vaccinations. The Polish performance in coronavirus testing is unsatisfactory compared with other EU countries. Therefore, the official disease statistics probably diverge significantly from the actual numbers involved in the outbreak.

In response to the COVID-19 pandemic, the Polish government has designed a fiscal support package for businesses and individuals amounting to 11.3% of GDP, which is moderate in size by EU standards. It includes 'above-the-line' measures (6.5% of GDP) provided through standard budget channels and 'below-the-line' measures (4.8% of GDP) mainly provided via governmental loans and guarantees. The package was initially economy-wide, but since the second wave of the pandemic it has been limited to businesses in industries most affected by the partial lockdown. On one hand, from the macroeconomic point of view, the fiscal stimulus seems to have had its intended effects, measured by economic growth and employment. On the other hand, the significant acceleration of inflation to levels not seen in Poland in the last two decades has recently been observed. Further, the stimulus has led to an unprecedented deterioration of the fiscal stance in Poland. The Polish government decided to temporarily freeze the 'expenditure rule' (Article 112aa of the Public Finance Act) to gain fiscal space for the accommodative measures during the pandemic. As a result of the sizeable government budget deficits in the COVID-19 era, the public debt of Poland is not far from the 60% safety threshold prescribed in Article 216 of the Polish Constitution. In this new fiscal environment, the Polish government has decided to overhaul Poland's taxation system. The Polish Deal reform is intended to make the tax system more progressive.

The current crisis has seen issues surface that should be addressed by the government. First, policymakers should strive to ensure the clarity of roles and responsibilities in the public sector. There are systemically important institutions such as the National Development Bank, Polish Development Fund, and National Road Fund that are excluded from the public debt statistics under the national methodology, even though they play a large role in implementing the fiscal stimulus. Such recourse to 'creative accounting' deteriorates the transparency of government operations and distorts the picture of the public debt. Therefore, uniform rules for measuring government debt in Poland according to the EU's regulations are recommended to avoid confusion among economic agents. A fiscal transparency portal as an e-government initiative could support fiscal transparency through open government budget data. Second, the government is recommended to undertake new promotional activities to raise awareness of the population concerning the benefits of the national vaccination programme, especially among the younger generation that currently has the lowest vaccination coverage. In this regard, digital tools like social media could be more efficient than traditional channels. The COVID-19 testing policy should also be extended and follow in the footsteps of France or Czechia. In turn, employers should be given access to information about whether their employees are vaccinated to allow for the better organization of their operations and reduce the infection risk. Finally, the worries about the Polish Deal expressed by businesses should be properly addressed. The government should aim to lower the uncertainty stemming from the tax reform since the new 'rules of the game' were implemented without a sufficient vacatio legis and proper consultations. For this, tax transparency portals for entrepreneurs would be supportive.

Tax transparency portals for entrepreneurs would be supportive.

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Chapter 6

Tax and Fiscal Policy Measures during the COVID-19 Pandemic: Evidence from Croatia

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1 Introduction

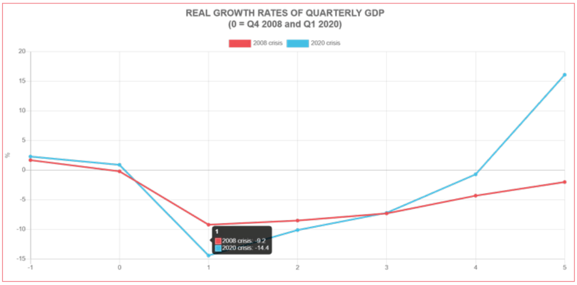
The COVID-19 pandemic has seen exceptional changes in the behaviour of individuals and economic entities in Croatia as well as all other European Union Member States (EU MS), and slowed economic growth. As a result, EU MS have had to take a number of different measures, such as health, economic, public policy, fiscal and financial, monetary, and more, to mitigate the health and economic consequences. Governments have responded to the sudden halting of economic activity by increasing their spending on healthcare, transferring funds to maintain liquidity and save public and private sector jobs, and deferring tax and credit obligations. All of these actions taken in public policy to address the COVID-19 pandemic are also reflected in fiscal policy. This is evident in the expense and profit sections because it concerns the effect on the budget and their expense and profit aspects (Žunić Kovačević 2021). Moreover, this has a dramatic impact on public financing and the tax and contribution system.

Although the Croatian economy has not yet recovered from the great crisis of 2008, the situation has become worse with this pandemic. Croatia was very unprepared for this situation. The lockdown in March 2020 saw industrial production drop in almost all sectors. According to Central Statistical Office data (2020), quarterly gross domestic product (GDP) at market prices in the second quarter of 2020 was 14.4% lower than in the same quarter of 2019. In addition, imports of goods have decreased significantly, especially from the main foreign trade partners from the EU. This ranks the Republic of Croatia among the three worst affected countries. The government has taken several measures to help the economy recover. The aim of this study is to describe the fiscal and financial policy measures and present the Croatian economy's current situation during the pandemic. The study may interest practitioners with respect to the recommendations offered for improving the current tax and fiscal system, and may also be of use for academics while presenting the current COVID-19 situation to students and the public.

2 The COVID-19 situation in Croatia and compared with other European Member States

The outbreak of the COVID-19 pandemic has led to a serious health crisis, yet also an economic crisis and a considerable decline in economic activity in countries around the world, including Croatia. Governments have responded to the pandemic, health crisis and economic crisis with rapid and comprehensive fiscal measures. These measures have affected quarterly national accounts aggregates and the quality and availability of many data sources commonly used to estimate GDP. Figure 1 shows real growth rates of quarterly GDP for Croatia.

Figure 1: Real growth rates of quarterly GDP in Croatia

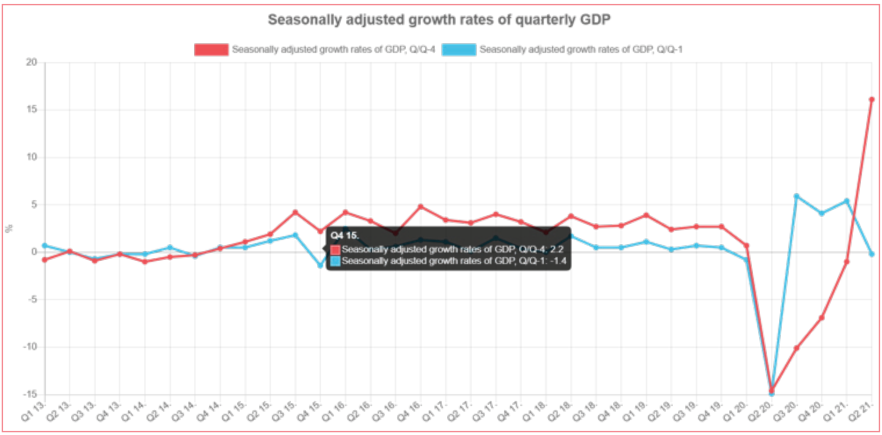


X-axis	2008 crisis	2020 crisis
-1	Q3 2008	Q4 2019
0	Q4 2008	Q1 2020
1	Q1 2009	Q2 2020
2	Q2 2009	Q3 2020
3	Q3 2009	Q4 2020
4	Q4 2009	Q1 2021
5	Q1 2010	Q2 2021

Source: Croatian Bureau of Statistics, 2020.

The presented data allow the conclusion that the COVID-19 crisis is responsible for much more severe consequences than the financial crisis of 2008/2009. Thus, the decline in GDP in 2020 was 14.4%. in contrast to the financial crisis of 2008 when the decline in GDP was 9.2%. Figure 2 shows seasonally adjusted quarterly GDP growth rates.

Figure 1: Real growth rates of quarterly GDP in Croatia



Source: Croatian Bureau of Statistics, 2020.

The data provided show economic activity in the first quarter of 2021 led to a real decline in GDP, whereas in the second quarter significant growth was recorded. Table 1 shows real growth rates of quarterly GDP by expenditure category, based on non-seasonally adjusted data in 2020 and 2021.

Table 1: Real growth rates of quarterly GDP by expenditure categories based on non-seasonally adjusted data in Croatia

	2020				2021
	I. – III.	IV. – VI.	VII. – IX.	X. – XII.	I. – III.
Final consumption expenditure	2.1	-9.8	-4.6	-2.6	-0.3
Households	0.7	-14.0	-7.5	-4.5	-0.4
Non-profit institutions serving households	3.9	-1.0	0.5	-0.8	-1.4
General government	6.1	1.7	3.0	3.1	0.2
Gross fixed capital formation	3.1	-14.7	-3.0	4.2	4.6
Exports of goods and services	-2.0	-40.7	-32.3	-9.8	-0.9
Goods	1.4	-10.4	-3.0	8.6	8.3
Services	-8.1	-66.9	-45.3	-35.0	-18.6
Imports of goods and services	-5.0	-27.5	-14.1	-7.6	-2.1
Goods	-0.9	-24.5	-9.9	-3.6	1.0
Services	-23.5	-42.2	-33.3	-25.9	-19.7
Gross domestic product	**0.9**	**-14.4**	**-10.1**	**-7.2**	**-0.7**

Source: Croatian Bureau of Statistics, First Release, No. 12.1.1/2., 2020.

The data in Table 1 reveal that in the second quarter of 2020 all expenditure categories, except government, experienced a decrease. Categories with the biggest decreases were the export of services (66.9) and import of services (42.2). This can be explained by certain travel restrictions whereby Croatian citizens were not allowed to travel from one city or municipality to another. Moreover, this was a period when the number of cases of COVID-19 infections had peaked.

Despite the COVID-19 pandemic, all EU MS faced high consolidated gross public debt. The situation is even worse after the start of COVID-19. Table 2 shows the level of consolidated government gross debt as a share of GDP.

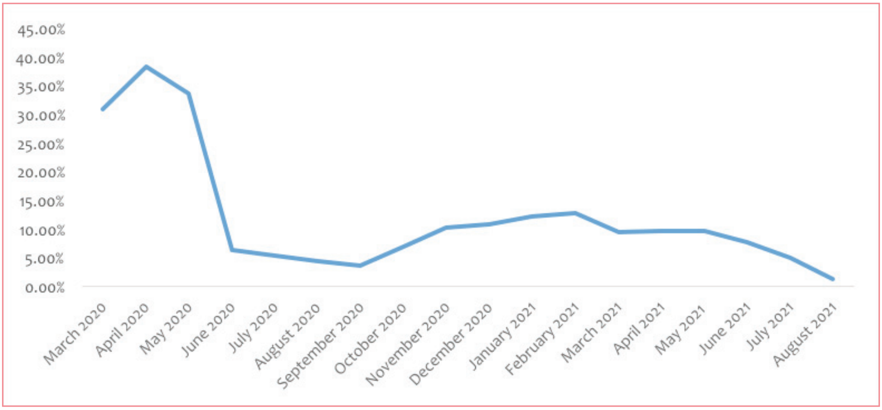
Table 2: Level of government consolidated gross debt in the period 2018–2020 (% of GDP)

	2018	2019	2020
Belgium	99.9	97,7	112,8
Bulgaria	22.1	20	24.7
Czechia	32.1	30	37.7
Denmark	34	33.6	42.1
Germany	61.3	58.9	68.7
Estonia	8.2	8.6	19
Ireland	63.1	57.2	58.4
Greece	186.4	180.7	206.3
Spain	97.5	95.5	120
France	97.8	97.5	115
Croatia	73.3	71.1	87.3
Italy	134.4	134.3	155.6
Cyprus	98.4	91.1	115.3
Latvia	37.1	36.7	43.2
Lithuania	33.7	35.9	46.6
Luxembourg	20.8	22.3	24.8
Hungary	69.1	65.5	80.1
Malta	43.6	40.7	53.4
Netherlands	52.4	48.5	54.3
Austria	74	70.6	83.2
Poland	48.8	45.6	57.4
Portugal	121.5	116.6	135.2
Romania	34.7	35.3	47.4
Slovenia	70.3	65.6	79.8
Slovakia	49.6	48.1	59.7
Finland	59.8	59.5	69.5
Sweden	38.9	34.9	39.7

Source: Eurostat, Government deficit/surplus, debt and associated data, 2021.

Table 2 shows that the EU MS with the highest government consolidated gross debt are Greece (206.3% in 2020), Italy (155.6% in 2020) and Portugal (135.2% in 2020). Croatia also increased its consolidated government gross debt from 71.1% in 2019 to 87.3% in 2020. The EU MS with the lowest debt level is Estonia. Due to the COVID -19 crisis, all EU MS have increased their debt to finance all necessary economic activities. Figure 3 shows the share of jobs supported by government measures in Croatia between March 2020 and August 2021.

Figure 3: Total jobs supported by governmental measures in Croatia



Source: Eurostat, COVID-19 data, 2021.

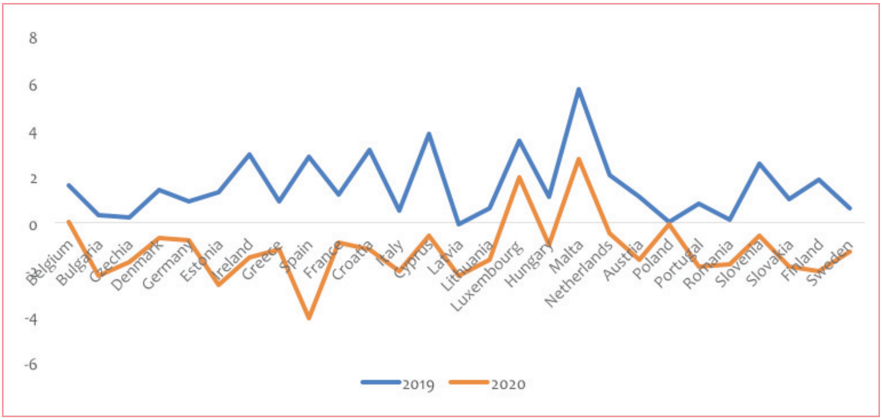
The data in Figure 3 show that the highest level of supported jobs was in April 2020 (38.19%), while the lowest level was in August 2021 (1.13%). All of these jobs are in the public and private sectors where workers are either on short-time working (and equivalent) schemes or have been made temporarily redundant, which is at least partly offset by government funding which may or may not pass through the employer. If we follow the NACE classification, i.e. the framework for collecting and presenting a wide range of statistical data by economic activity in the economic statistics domains, there are significant differences in certain areas. The sector that had to be supported 100% by state measures was the accommodation and catering sector from March 2020 to the end of May 2020 and also in December 2020 and January 2021, which was followed by the decision of the Civil Protection Centre to close restaurants and bars so that people could not gather and celebrate. On the other hand, financial and insurance activities continued as normal since most of the related aspects can be clarified by email, phone etc. Figure 4 shows the percentage of local units using COVID-19 in connection with the government's support measures in Croatia from March 2020 to August 2021.

Figure 4: Proportion of local units actually using COVID-19-related government support measures in Croatia

Source: Eurostat, COVID-19 data, 2021.

The presented reveal the biggest share of local units using the COVID-19 measures was in April 2020 (31.65%), only 1 month after the measures had been introduced, and the lowest in August 2021 (1.36%). According to the Eurostat methodology, a local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) located in a geographically identified place. Figure 5 shows the percentage change in total employment in 2019 and 2020 across all EU MS.

Figure 3: Total jobs supported by governmental measures in Croatia



Source: Eurostat, COVID-19 data, 2021.

It may be concluded from Figure 5 that almost all EU MS have experienced a significant decrease compared to 2019. The exceptions are Luxembourg and Malta. The MS with the biggest drops are Spain (-4.1%) and Estonia (-2.7%), while the smallest decrease was seen in the Netherlands (-0.5%) and Poland (-0.1%). The post COVID-19-pandemic situation is certain to change the structure of employment as more jobs become digitalized and automated.

3 Current state of tax and fiscal policy measures in Croatia during COVID-19

As is well known, the coronavirus appeared in Asia in the second half of 2019, while the first case imported from Milan was registered in the capital Zagreb on 25 February 2020. After this case, the government was forced to take certain measures. The aim of those measures was to continue business operations in both the public and private sectors, preserve the jobs of entrepreneurs and their employees, and maintain all public functions, i.e. healthcare, education, social welfare and others. One of the first institutions that had to introduce some measures was the tax administration since it was directly linked to employers and businesses. The following measures were taken (Deloitte, 2020):

1. "Deferral of payment of corporate income tax and personal income tax liabilities and social security contributions. The measure is implemented by the amendment of the General Tax Act that would allow to the Minister of Finance to issue special regulations governing this area. Late penalty interest would not be charged during the deferral period and statute of limitation would not run. Per information provided during the Government session, the intended deferral in settlement would be 3 months with potential extension to additional 3 months, and taxpayers could also request settlement in instalments under certain conditions, however, further details, including the first period subject to deferral are yet to be confirmed;

2. Individuals are entitled to an early personal income tax refund. Under the present legislation, a personal income tax refund based on an annual tax assessment is made upon expiry of the deadline for objection to the provisional notice of assessment issued in June, which was usually during August of the current year. The tax refund procedure has been changed so that the refund is made at the time of delivery of the provisional assessment notice to the individual, who remains entitled to the objection rights. Based on this new measure, the individuals will receive their personal income tax refund for 2019 during June 2020;

3. Grants to self-employed individuals used to alleviate the effect of the current crisis are not be regarded as taxable receipts (i.e. they will not be subject to personal income tax from self-employed activity);

4. Companies receiving grants to alleviate the effect of the current crisis are exempt from paying corporate income tax on such grants".

Except these tax measures, the Government of the Republic of Croatia included other economic and financial measures, which refers to (Deloitte, 2020):

1. "Granting interest free loans to municipalities, cities and counties, Croatian Health Insurance Fund and Croatian Pension Insurance Institute up to the amount of personal income tax, surtax and contributions payments which has been deferred and/or payment in instalments was granted;

2. Reprogramming of existing loans (with the introduction of a grace period in repayment of the loan principal) and introduction of a moratorium on credit obligations of Croatian Bank for Reconstruction and Development (HBOR) clients and commercial banks under existing placements;

3. Approval of new liquidity loans to economic operators for financing salaries and other basic operating expenses, in cooperation with commercial banks;

4. Granting guarantees (insurance policies) to commercial banks of exporters and to HBOR under the export guarantee fund with the aim of granting new loans for working capital – liquidity;

5. Increasing the scope of the export guarantee fund by including the tourism sector with the aim of enabling the issuance of guarantees (insurance policies) for loans to banks and HBOR, for additional liquidity funds to exporters and the tourism sector;

6. Introduction of the Stand still, i.e. suspension of execution of all enforcement against all debtors (legal or natural persons) for a period of three months;

7. Loans for liquidity and working capital (salaries and working capital excluding liabilities towards financial institutions) with maturity of up to three years;

8. Conducting reprogramming by credit institutions to designated clients in an expedited manner without reclassification to default;

9. Introducing through the Amendments to the Investment Encouraging Act, the extension of deadlines for the implementation of investment projects and the introduction of an additional grace period of three years for preserving jobs;

10. Introduction of special loans, moratorium on loan instalments, extension of guarantees and lower interest rates for SMEs;

11. Intervention purchase of surpluses in livestock and crop production, fruit and vegetables, and other products from potentially endangered industrial and agricultural producers;

12. Interventional procurement of disinfectants, soaps and detergents, indoor disinfectants, disinfectants for hospitals and other facilities, and protective equipment to combat coronavirus, other products from potentially vulnerable industrial and agricultural producers, and their inclusion in the Balance Sheet of Strategic Commodities;

13. Aid for preserving jobs in coronavirus affected sectors;

14. Interim measure of suspension of self-employment and employment grants with aim of securing additional funding for job retention in coronavirus-affected sectors;

15. Extension of duration of permanent season worker measure;

16. Ensuring payment of minimum wages for persons with disabilities with aim of employment retention, and deferral of payment of financial compensation for all employers of the quota for employment of persons with disabilities;

17. Deferral of payment of tourist membership fees for business entities and private renters;

18. Deferral of payment of sojourn fee for private renters (flat rate);

19. Aid for programs of financing working capital and improving the liquidity of affected entrepreneurs in tourism sector;

20. Deferral of payment of the concession fee on tourist land in camps;

21. The possibility of mobilizing part of the budget as a contribution to sectoral intervention grants to entrepreneurs (national grant);

22. Other measures in agricultural, cultural, sea and transport sectors".

National and local governments had to secure funding through loan financing or different sources of finance available.

Therefore, the government has taken measures on several occasions to monitor the current situation. According to Cipek and Hadžić (2020), "to maintain certain level of revenue to cover public expenditures, national and local governments had to secure funding through loan financing or different sources of finance available. This primarily refers to selling goods or services through direct contact, on business premises, because in order to protect human health and due to keeping a safe distance for the purpose of infectious disease control, there are restrictions related to carrying out the activities and even shutting down stores where services are provided and goods are sold" (p. 27). Further, the Organisation for Economic Co-operation and Development (OECD) has identified several tax measures that support the fight against COVID-19. These measures are presented in Table 3.

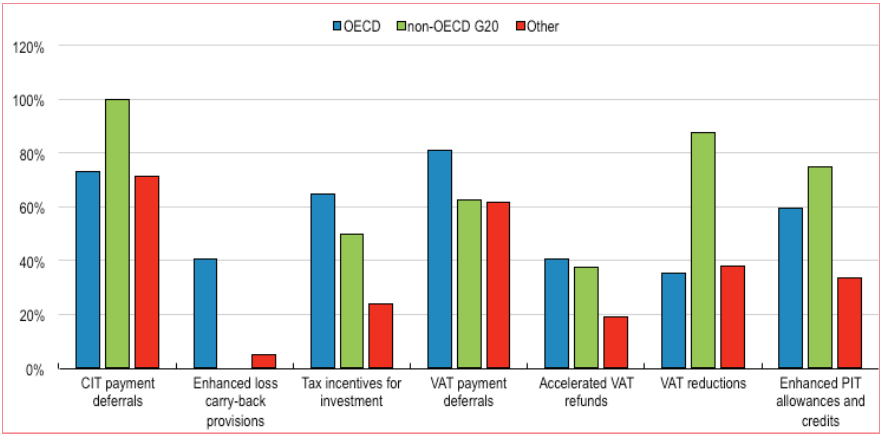
Table 3: Typology of tax measures introduced in response to the COVID-19 crisis

	Relief	Recovery-oriented stimulus	Tax increases
Objectives of policies	Cushion the economic and social impacts of the virus containment policies	Stimulate aggregate demand and investment	Finance part of the government's response to the crisis
Main types of tax measures	Tax deferrals Tax filing extensions Accelerated tax refunds Loss-carry back provisions Temporary tax waivers Temporary tax rate reductions	Tax incentives for investment Reduced corporate or other business taxes Tax incentives for employment Temporary VAT rate reductions Lower property transaction taxes	Increases in top personal income tax rates Health excise tax increases Environmental tax increases Property tax increases Business tax increases

Source: OECD, 2021.

The primary focus of these measures was to provide emergency assistance to businesses and households. Depending on the COVID-19 situation, countries have introduced more or less comprehensive fiscal support measures. Figure 6 shows the most common fiscal measures in each group of countries.

Figure 6: Common tax measures across groups of countries



Source: OECD, 2021.

The data presented above show significant differences between tax measures. For example, in the group of OECD countries, value-added tax (VAT) deferrals (81%) and corporate income tax (CIT) deferrals (73%) have been the most frequent, while in the group of G20 non-OECD countries CIT deferrals (100%) and VAT reductions (88%) have mostly been used. For the other countries, the tax measures with the greatest use are CIT payment deferrals (71%) and VAT payment deferrals (62%). Moreover, the types of tax measures introduced largely depend on the architecture of a country's tax system.

As regards the situation in Croatia, the government has on several occasions proposed measures to mitigate the effects of the special circumstances created by the COVID-19 pandemic. The first set of measures, introduced on 17 March 2020, relates to the first amendment to the General Tax Act (Official Gazette No. 32/20). This refers to the deferral of tax payments and reduction of monthly advance payments of personal income tax or corporate income tax. Under Article 107(a) of the General Tax Act, there is a possibility of applying for tax payment deferral in special circumstances. This applies to an event or situation "which could not have been foreseen and affected, which endangers the life and health of citizens, property of greater value, significantly impairs the environment, disrupts economic activity or causes significant economic damage". According to the Act on Tourist Board Membership Fees (Official Gazette No. 52/2019), this applies to both taxpayers with income from professional activities of liberal professions who pay a lump-sum tax on their income earned in this way, and corporate taxpayers whose tax liability is payable as a lump sum. Pursuant to Article 3(5) of the Ordinance on estimated (lumpsum) taxation of liberal professions (independent personal services) (Official Gazette No. 1/20), in the case of temporary suspension of such activity being reported to both the competent authority with which the activity is registered and the competent tax administration office, no tax liability is determined for that period. The application for tax payment deferral is presented in Table 4.

Table 4: Application for tax payment deferral due to special circumstances

MINISTRY OF FINANCE
TAX ADMINISTRATION
BRANCH OFFICE
LOCAL BRANCH OFFICE
PLACE AND DATE
APPLICATION FOR TAX PAYMENT DEFERRAL DUE TO SPECIAL CIRCUMSTANCES
1. INFORMATION ABOUT THE APPLICANT
1.1. SOCIAL SECURITY NUMBER (OIB) 1.2. COMPANY/NAME AND SURNAME
2. APPLICATION CONTENT
In accordance with the General Tax Act and the Ordinance on the Implementation of the General Tax Act, I am herewith submitting an application for deferred payment of tax liabilities for a period of three months due to the occurrence of special circumstances caused by the COVID-19 virus.
Facts relative to deciding on the application:
2.1. All tax liabilities were settled prior to the occurrence of special circumstances, or on the day of submitting this application, current debt recorded on the tax and accounting book of records amounts to less than HRK 200.
YES NO
2.2. Due to the occurrence of special circumstances, revenue/income were reduced by at least 20% in the month preceding the month of application, compared to the same period of the previous year
YES NO
2.3. Due to the occurrence of special circumstances, revenue/income is expected to be reduced by at least 20% in the next three months following the month of application, compared to the same period of the previous year.
YES NO
2.4. Value of supplies of goods and services of more than HRK 7.5 million excluding VAT was not recorded, the tax base is determined based upon the deliveries made, and the invoices issued on the basis of which the value added tax liability was determined have not been charged.
YES NO
3. EXPLANATORY STATEMENT
As an authorized person, I hereby declare under substantive and criminal liability that the information provided is true and correct.
SIGNATURE:

This application applies to both taxpayers whose income arises from professional activities and corporate taxpayers whose tax liability is payable in a lump sum. The application must be submitted in accordance with the instructions published by the Croatian tax authorities via the portal of the Croatian tax authorities (ePorezna). The deadline for submitting the application is 5 days from the due date of the tax liability. The applicant may choose to pay only the deferred tax liabilities in instalments or to pay all deferred tax liabilities in instalments, regardless of whether they are due at the time of filing the application.

The reduction of monthly advance payments of personal income and corporate income tax was the second measure adopted in March 2020. According to Article 107(a) of the General Tax Act (Official Gazette No. 32/20), “taxpayers who have suffered damage in their operations, i.e. they suspended and restricted their business operations due to special circumstances, the Tax Administration may not only postpone, but also reduce advance payment of personal income or corporate income tax to a smaller amount, i.e. to HRK 0.00. Natural persons engaged in a liberal profession (their income is determined on the basis of business records) and corporate taxpayers are entitled to the right to reduced advance payment”. The tax administration may decide on a deferred tax liability ex officio and upon the request of a taxpayer.

The extended package of measures to further mitigate COVID-19’s impact was submitted by the government on 2 April 2020. The main institutions involved in their implementation were the Croatian Employment Service, the Croatian Bank for Reconstruction and Development (HBOR), the Tax Administration within the Ministry of Finance, and the Croatian Agency for SMEs, Innovation and Investments (HAMAG BICRO). These tax and economic measures included the following (Deloitte, 2020a):

1. "Amount of the aid related to Coronavirus epidemic from the Croatian Employment Agency for preservation of the employment is increased and amounts to HRK 4,000 for April and May 2020;

2. Employers which benefit from the aid of the Croatian Employment Agency will be exempt from obligatory contributions related to these salaries;

3. All taxpayers whose businesses are suspended or distressed will be completely or partially exempt from payment of public charges which are due during April, May and June 2020;

4. Payment of VAT can be postponed until issued invoices are settled;

5. Deadline for submission of the tax returns, forms and reports related to the annual reporting will be postponed (as announced, to 30 June 2020) – possibility of postponement of other deadlines during the epidemic is prescribed;

6. Instead of payment of import VAT, declaring the liability in the VAT return can be prescribed – no actual payment;

7. Regulation of VAT liability related to donations during the special circumstances is enabled; and

8. The proposed amendments to the Accounting Act will enable the Minister of Finance to prescribe, i.e. extend, the deadlines for submission of an individual and consolidated non-financial report, submission to the Financial Agency individual and consolidated annual financial reports with the accompanying audit report for the public disclosure, submission of statement of inactivity, submission of financial information for statistical and other purposes, and special measures proposed for agriculture and tourism sectors".

The government also announced the following proposals for decisions related to loans (see Table 5.)

Table 5. Decisions concerning loans

TYPE	DESCRIPTION
MICRO AND SMALL LOANS FOR RURAL DEVELOPMENT	Interest rates lowered from 0.5%–1.0% to 0.1%–0.25%
A NEW MICRO LOAN FOR RURAL DEVELOPMENT FOR WORKING CAPITAL	A new instrument for working capital for rural development with an interest rate of 0.5% Target group: Micro and small business entities, subject to the conditions prescribed by the EAFRD measures eligible for funding under this instrument Amount of loan: From EUR 1,000 to EUR 25,000 in HRK equivalent at the CNB middle exchange rate on the date of application. Purpose of the loan: Working capital Minimum repayment period: 12 months Maximum repayment period: 3 years Interest rate: 0.5% Request processing fee: 0% Grace period: Up to 12 months if the repayment period is at least 2 years Collateral: Promissory note, other security instruments risk assessment
A COVID-19 LOAN FOR WORKING CAPITAL	A new programme to provide additional liquidity to micro, small and medium-sized businesses affected by the COVID-19 pandemic. A prerequisite for entrepreneurs to be able to use this instrument is a 20% decline in revenue in the first quarter, or such a forecast for the coming quarters. It is important to note these funds cannot be used to refinance existing loan commitments or to pay off commitments made before 2020. Target group: Micro, small and medium-sized small business entities Loan amount: Up to HRK 750,000 Purpose of the loan: Working capital Maximum repayment period: Up to 5 years including grace period Interest rate: 0.25% Request processing fee: 0% Duration: Up to 6 months Grace period: Up to 12 months if the repayment period is at least 2 years Collateral: Promissory note

Source: Deloitte, 2020a.

A few days later, on 7 April 2020, the second amendment to the General Tax Code was published (Official Gazette No. 42/20). This amendment refers to: taxpayers who are entitled to and have received support aimed at helping businesses retain their employees to be exempt from paying public imposts related to net salaries co-financed by the Croatian Employment Service; when a taxpayer's business activity is suspended or significantly hindered by a decision of the competent authority due to the occurrence of special circumstances, they may be fully or partially exempt from paying tax liabilities; deadlines, payment of value-added tax on import and donations, the implementation of enforcement measures, interest rates, and procedural provisions. One day later, on 8 April 2020, amendments to the Ordinance on the Implementation of the General Tax Act (Official Gazette No. 43/20) were adopted. They refer to the procedure of deferred and/or instalment payment of a due tax liability, exemption from contribution liabilities for co-financed net salaries, exemption from tax liabilities and the implementation of other special circumstance provisions. In addition, the deadline for filing tax returns as well as for submitting other forms and annual financial statements was extended to 30 June 2020, while the deadline for corporate income tax liability was 31 July 2020. Table 6 presents the submission deadlines for financial statements.

Table 6: New deadlines for financial statements during the special circumstances

TAXPAYER	REPORT	OLD DEADLINE	NEW DEADLINE
Companies and all income taxpayers	Balance sheet RDG and Statement of Comprehensive Income Additional information	30 April 2020	30 June 2020
Medium and large enterprises and entities of public interest	Annual financial statement Annual report Decision on determining the AFS Decision on the allocation of profit/loss Non-financial report	30 June 2020 30 September 2020 (for consolidation)	Within 8 months of the last day of the business year 10 months (for consolidation)
Small and micro enterprises, branch offices	Annual financial statements Auditor's report Decision on determining the AFS Decision on the allocation of profit/loss	30 June 2020 30 September 2020 (for consolidation)	Within 8 months of the last day of the business year 10 months (for consolidation)
Inactive enterprises	Declaration of inactivity	30 April 2020	30 June 2020
Income tax – reports for the tax administration – TAX ADMINISTRATION			
All enterprises	Income tax returns and other forms and reports in accordance with income taxation	30 April 2020	30 June 2020

Source: Ordinance on the Implementation of the General Tax Act, Official Gazette No. 43/20.

The most popular measure among taxpayers is deferral, i.e. the payment of tax liability in instalments. A taxpayer is considered unable to pay their due tax liabilities if they record at least a 20% reduction in revenue/income in the month preceding the month of application relative to the same month in the previous year, or if the taxpayer expects a revenue/income decline of at least 20% in the next 3 months following the month of application relative to the same period in the previous year. In addition, "if the taxpayer has been granted tax payment deferral and/or instalment payment, the tax authority may subsequently verify the facts on which the previously submitted claims are based and on the basis of which some of the said tax payment support measures have been approved. The tax authority may, as a final measure – if it subsequently determines that the conditions cannot be met – declare the tax payment support measure null and void, i.e. tax liabilities become payable immediately" (Perić and Jerković, 2021, p. 670). The exemptions are applicable to taxpayers as described below (KPMG, 2020):

1. "Whose business activities are during special circumstances banned, disabled or significantly impeded by decisions of the competent authority; and have a decrease in income of at least 50% in the period from 20 March 2020 to 20 June 2020 comparing to the same period previous year;

2. If the taxpayer had income/receipts less than HRK 7,5 million in 2019, full exemption on tax payments due; and had income/receipts more than HRK 7,5 million in 2019, partial exemption on tax payments due proportionate to the decline in income compared to the same period of the previous year;

3. It is applicable on all taxes and public charges due in the period from 1 April 2020 to 30 June 2020 but not on VAT, excise duties, custom duties, contributions for pillar II of mandatory pension insurance, taxes and surtax on final income, fees and charges on games of chance, liabilities based on previously concluded administrative agreements and rescheduled liabilities from pre-bankruptcy and bankruptcy proceedings;

4. Exceptions also applies to taxpayers who earn income from renting flats, rooms and beds to travelers and tourists and organizing campsites, who pay a lump sum tax, will be exempt from the tax payable by the end of the second quarter of 2020 (1/4 of the annual lump sum income tax and surtax) without submitting a request and to taxpayers and other legal and natural persons who have not submitted a Request for payment deferral and who have a business disruption of more than 50% during special circumstances. The tax authority will decide on the request in a special procedure".

Applications for VAT deferral can be submitted by (KPMG, 2020):

1. "Entrepreneurs who report VAT on an accrual basis, regardless of the value of supplies of goods and services in the previous year (limit of HRK 7,5 million is abolished) if:

- They meet the indicators of inability to settle tax liabilities due (20% revenue decrease); and
- VAT liability arises from issued and incoming invoices that have not been settled".

VAT liability is assessed on a cash basis, i.e. output VAT arises on paid invoices and input VAT can be recovered on paid invoices. Hence, a deferral could be applied with respect to VAT liability arising from the March VAT return due by 30 April 2020, and the VAT liability arising from the April VAT return due by 31 May 2020.

In the area of VAT, there are also VAT

exemptions for donations. According to Article 71(t) of the Ordinance on the Implementation of the General Tax Act, VAT payments for supplies of goods and services, VAT payers are exempt from paying VAT for good and services supplied without fees and consideration that, at the same time, are necessary to combat against the effects of the COVID-19 pandemic. This applies to supplies provided in March 2020 and the first quarter of 2020, due by 30 April 2020, and supplies provided by 20 June 2020. On 3 April 2020, the European Commission adopted Decision 2020/491 on relief from import duties and VAT exemption upon importation granted for goods needed to combat the effects of the COVID-19 pandemic. According to Article 1 of this Decision (Official Journal of the European Union, 2020), goods may be admitted free of import duties and exempted of VAT on the imports where the following conditions are met:

1. "The goods are intended for one of the following uses:

(i) distribution free of charge by the bodies and organisations referred to the persons affected by or at risk from COVID-19 or involved in combating the COVID-19 outbreak;

(ii) being made available free of charge to the persons affected by or at risk from COVID-19 or involved in combating the COVID-19 outbreak while remaining the property of the bodies and organisations

2. The goods satisfy the requirements laid down in Articles 75, 78, 79 and 80 of Regulation (EC) No 1186/2009 and Articles 52, 55, 56 and 57 of Directive 2009/132/EC;

3. The goods are imported for release for free circulation by or on behalf of State organisations including State bodies, public bodies and other bodies governed by public law or by or on behalf of organisations approved by the competent authorities in the Member State".

From 9 April 2020, the tax administration has the right to apply special rules when conducting enforcement proceedings. According to the Ordinance on the Implementation of the General Tax Act (Official Gazette No. 45/19, 35/20, 43/20, 50/20, 70/20, 74/20, 103/20, 114/20, and 144/20), "taxpayers or debtors whose business activities have been suspended by the Decision of the Civil Protection Headquarters of the Republic of Croatia and the tax authority may conclude an administrative contract in special circumstances to pay tax debt for tax liabilities due during the said suspension". The following provisions apply to an administrative contract in special circumstances (Official Gazette No. 45/19, 35/20, 43/20, 50/20, 70/20, 74/20, 103/20, 114/20 and 144/20):

1. "The tax liability stated on the tax and accounting book of records is considered compliant with the taxpayer, with no certificate of outstanding debt issued by the competent tax authority required;

2. Taxpayers express their intention to conclude an administrative contract by submitting a request, and the tax authority by signing the administrative contract of the head of the authority or a person authorized by the head of the authority;

3. The administrative contract is concluded for a maximum period of 24 months with statutory default interest for the repayment period reduced by 3 percentage points;

4. An administrative contract can also be concluded without collateral;

5. An administrative contract can also be concluded even if a taxpayer has a pre-bankruptcy settlement procedure, a pre-bankruptcy agreement or an administrative contract in force, provided that they have settled all liabilities due before the entry into force of this article, provided that all due liabilities have been settled by the day of submitting the request for concluding the administrative contract and in accordance with the annuity plan for repayment of the pre-bankruptcy settlement, a pre-bankruptcy agreement or an annuity plan which is an integral part of the previous administrative contract".

The proposed measures include tax deferrals, faster tax refunds, loss compensation and some tax exemptions and others.

Despite everything, there will always be a certain number of taxpayers who do not pay their tax liabilities, for good reason or not.

4 Policy recommendations for Croatia

In the exceptional circumstances caused by the COVID-19 pandemic, the government has taken various types of measures to achieve the economic objectives – to maintain or prevent a blow to the liquidity of the economy and entrepreneurs and households, while preserving jobs. Maintaining the cash flow of businesses is the main objective of the fiscal policy measures introduced, supported by monetary and fiscal policy. The proposed measures include tax deferrals, faster tax refunds, loss compensation and some tax exemptions and others. The COVID-19 crisis has also revealed all of the weaknesses of the public finance systems in the Republic of Croatia. This indicates that the system needs a new instrument, in addition to the traditional and adapted ones, to fight both existing and possible future crises. Moreover, the design and reform of the fiscal system after the COVID-19 crisis must be coherent in order to address the structural challenges facing the country.

In order to revive the economy after the COVID-19 crisis and ensure a successful tax reform of Croatia's tax system, the recommendations are as follows (OECD, 2021a, p. 14):

- "To create growth-friendly tax policies – refers to the support of efficient use of productive factors, by encouraging labour market participation and skills development, and by increasing business investment, productivity growth and diffusion;
- To create tax policies for equitable societies – refers to strengthening the effective taxation of top income earners and wealth holders;
- To create taxation for a sustainable environment – refers to incentives to reduce greenhouse gas emissions through favourable treatment of environmentally appealing technologies or behaviours, and by pricing greenhouse gas emissions;
- To overcome tax challenges – refers to strengthening the capacity to build sustainable tax revenue bases".

In addition, EU MS, including Croatia, have also set out their Recovery and Resilience Plan with the reforms and investments they intend to implement following the COVID-19 crisis and by 2026. This plan has an estimated total cost of EUR 6.4 billion and is structured around five priorities – the economy, public administration, justice and governance, education, science and research, the labour market and social security, healthcare and a building renovation initiative. The plan's overall implementation is overseen by the Croatian Ministry of Finance in cooperation with other financial and organizational institutions. This plan is in line with key strategic documents such as the Croatian Government's 2020 Programme, the National Reform Programme (2019–2024), the Country Specific Recommendations (CSRs) under the European Semester (2019 and 2020), the Action Plan for Croatia's Participation in the Exchange Rate Mechanism (ERM II) and the National Development Strategy of the Republic of Croatia until 2030. Table 7 shows the Recovery and Resilience plan components' coverage of the six pillars of the facility.

Table 7: Coverage of the six pillars of the Facility by the Croatian Recovery and Resilience Plan components

	Green transition	Digital transition	Smart, sustainable & inclusive growth	Social and territorial cohesion	Health and economic, social and institutional resilience	Policies for the next generation
1.1 A resilient, green and digital economy	●	○	●	○		
1.2. Energy transition for a sustainable economy	●	○	○	○	○	
1.3 Improving water management and waste management	●			●	○	
1.4. Development of a competitive, energy sustainable and efficient transport system	●	●	○	○		
1.5. Improving the use of natural resources and strengthening the food supply chain	○	●	○		○	
1.6. Developing sustainable, innovative and resilient tourism	○	○	●	○		

2.1 Strengthening the capacity to design and implement public policies and projects	●	○	●	○	●	
2.2. Further improving the efficiency of the public administration		●	○	○	●	
2.3. Digital transformation of society and public administration		●	○			
2.4. Improving the management of state property		○		○	●	
2.5. Modern justice fit for future challenges	○	○			●	
2.6. Preventing and combating corruption		○		○	●	
2.7. Strengthening the fiscal framework					●	
2.8 Strengthening the anti-money laundering framework					●	
2.9. Strengthening the public procurement framework			●		○	
3.1 Reform of the education system			○	○		●
3.2. Boosting research and innovation capacity	○	○	●	○		●
4.1 Improving employment measures and the legal framework for the modern labour market and the economy of the future	○	○		●	○	○
4.2 Improving the pension system through increased pension adequacy				●	○	
4.3. Improving welfare systems		○		●	●	

5.1 Strengthening the resilience of the health system		●		○	●	
6.1 Renovation of buildings Initiative: Renovation of buildings	●	○	○		○	
Total number of components that significantly contribute to pillar	6	5	5	4	9	2

Note: "●" investments and reforms of the component significantly contribute to the pillar; "○" the component partially contributes to the pillar

Source: European Commission, 2021.

By implementing all of these components of the Recovery and Resilience Plan, the Republic of Croatia will drive the recovery from the COVID-19 pandemic, meet the objectives of both the European Green Deal and the EU Territorial Agenda 2030, contribute to the double transition and inclusive growth, and increase the Croatian economy's competitiveness. It is also recommended to establish efficient and effective online government services through an e-government platform. The reason for this is found in a study by Hodžić et al. (2021) that shows e-government maturity positively and significantly contributes to enhancing government effectiveness and efficiency. Given the current economic situation in Croatia, this is inevitable.

5 Conclusion

Unfortunately, the COVID-19 pandemic and the crisis are not yet over. Moreover, it is impossible to predict when the pandemic will end because the situation is changing every day. The situation in Croatia is even worse because the economy has not yet properly recovered from the great crisis of 2008. In order to save the economy, the governments of all EU MS, including Croatia, have taken various measures, i.e. passed laws, to effectively prevent an economically dangerous situation. On the other hand, the advantage of this pandemic is the accelerated shift of physical activities to the online system, i.e. the electronic tax administration system. On one hand, this has enabled the normal functioning of the whole system and, on the other, the system has been upgraded and improved. Although all institutions were involved in adoption of the measures, the tax administration, in cooperation with the Ministry of Finance, has borne the biggest burden. The main objective of all measures (fiscal and economic) and changes has been to ensure the survival of the most vulnerable sector, i.e. small and medium enterprises, such as hospitality or tourism. In the past, the Croatian economy depended heavily on tourism, but now it has been severely affected by the COVID-19 pandemic. In 2020, there was a total of 7,001 tourist arrivals and 40,794 tourist overnight stays (in 2019, there were 19,566 tourist arrivals and 91,243 tourist overnight stays). Among the proposed measures, the most popular has been the deferral of payment of corporate income tax or personal income tax and social security contributions. Roška et al. (2021) found that without further measures aimed at preserving the economy, it will be impossible to suppress any further declines in employment and GDP. Given that the COVID-19 pandemic is still not over, it is expected that there will be new extensions and changes to laws and regulations and that the economic consequences will be huge. The only way out of the current unstable economic situation is to start implementing all of the goals defined in the Recovery and Resilience Plan, the development of e-government and further tax reform.

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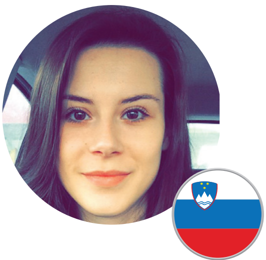
Chapter 7

Tax and fiscal policy measures in Slovenia in response to the COVID-19 pandemic



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1 Introduction

The COVID-19 pandemic has triggered a global health crisis and led to a significant drop in economic activity unseen in recent history. The COVID-19 pandemic turned within months from a health crisis to a global economic disaster, generating a much greater decline in global GDP than the global financial crisis of 2008, reaching almost 10% in the first half of 2020 and an estimated 3.4% for 2020 overall (OECD, 2021).

The COVID-19 pandemic is responsible for unprecedented changes and challenges, considerably affecting the quality of life and strongly impacting the Slovenian economy (Interreg Europe, 2021). Slovenia experienced many positive shifts in the period after the global financial crisis (2014–2019), slowly narrowing the economic development gap with the EU average and again starting to resemble the developed Member States. The country's public finances improved significantly in this period, with employment reaching highs and prosperity reflected in higher household income, stronger economic growth, and more inclusive social and societal development. The rate of the risk of social exclusion is by international standards low and in 2019 reached its lowest level, thereby achieving the Slovenian Development Strategy (SDS) goal for 2030 (the SDS target for 2030 concerning income inequality was namely already achieved in 2017). Moreover, the consumption of resources and energy efficiency was gradually improving, and the natural environment continued to be well preserved (IMAD, 2021).

The COVID-19 crisis has interrupted years of economic growth and labour market developments. Like other Member States, Slovenia has responded with extensive fiscal packages aimed at assisting the economy on one hand and giving direct assistance to the citizens to ease its impact on the other. The legal fiscal packages were adopted by the Government of the Republic of Slovenia during 2020 and some in 2021 to address the consequences of the COVID-19 pandemic. By mid July 2021, nine of such packages (PKPs) had been adopted (Interreg Europe, 2021; GOV, 2021a). The measures in these packages alleviated the cost pressures on companies and limited a decline in household disposable incomes. Due to the need to finance the measures as well as the contraction of economic activities, the public finance situation deteriorated remarkably (IMAD, 2021).

The OECD defines fiscal sustainability as a government's capacity to keep its public finances credible and serviceable over time (OECD, 2014), with this largely depending on the level of debt (Prodanov & Naydenov, 2020). Long-term fiscal sustainability necessitates the precise and ongoing planning and forecasting of future levels of public revenues and liabilities with consideration of the economy's position, economic development variables etc. (Mazzanti et al., 2020). The unforeseeable situation in which EU Member

State governments have found themselves since the start of the COVID-19 pandemic has created the conditions for deteriorated fiscal positions, a 'snowball effect' in terms of constantly rising debt levels and lower economic growth potential. The EU Member States' recovery spending, combined with the extraordinary drop in economic activity in 2020, has created a significant challenge for governments in maintaining fiscal sustainability. The two aspects are inextricably linked: ensuring fiscal sustainability and addressing this issues arsing from the pandemic (Zahariev et al., 2021).

On the other hand, data for 2020 for Slovenia are not yet available in relation to many areas, like the overall impact on the country's development and the population's well-being in 2020, or the outcome of the quality of education during the lockdowns, and the impact on the environment. However, the situation has led to certain opportunities, like the introduction of remote work and shortening of global value chains, highlighting the chances for future improvement, with the help of proper policies, of the digital transformation of the private and especially public sector, innovative changes and novel organization models that hold the potential to accelerate in the right conditions (IMAD, 2021).

2 The COVID-19 situation in Slovenia

The new coronavirus disease (COVID-19) emerged in December 2019 in China and initially appeared in Slovenia on 4 March 2020, when the first person to be infected was discovered. The news was announced by Prime Minister Marjan Šarec, who was then scheduled to resign following recent elections. The infected person had come to Slovenia from Morocco via Italy (MMC, 2020a).

An epidemic was officially declared on 12 March (MMC, 2020b). On the next day, the newly formed government headed by Prime Minister Janez Janša took office and began to take measures to curb the virus' spread (STA, 2020a), which drastically limited public life in the country, like in many other countries around the world. Restrictions were imposed on gatherings and movement in public areas, with the exception of individual movement and members of household groups, arrival and departure for work, economic activities, and protection and assistance. Access to pharmacies, grocery stores, petrol stations, banks and post offices, as well as health and sanitation services was also allowed. The restrictive measures successfully curbed the spread of the virus and after several weeks new daily cases of infections had declined to a minimum or even zero, leading the government to withdraw the declaration of an epidemic on 31 May 2020. During May, most restrictions on public life had been lifted (MMC, 2020c). The first wave of the epidemic in Slovenia lasted 12 weeks and claimed over 100 lives (MMC, 2020d). The second wave of the epidemic followed in summer, but was initially milder. However, numbers of infections and deaths began to rise sharply in autumn (MMC, 2020d). The government again declared an epidemic on 18 October 2020 (GOV, 2020a). Vaccination using the earliest quantities of the vaccine started on 27 December 2020, with priority in the giving of the vaccine going to residents in nursing homes, employees of nursing homes and healthcare workers (STA, 2020b; MMC, 2020e).

The first wave of the epidemic in Slovenia lasted 12 weeks and claimed over 100 lives.

During March 2021, the number of infections started to rise again, partly due to the spread of new, more contagious strains of the virus. The government and experts therefore commenced discussions about the third wave, leading to the complete closure of the country between 1 and 11 April 2021. School classes continued online, many non-essential shops, sports and cultural activities were closed, while remote work was advised and encouraged in the private sector (GOV, 2020b.)

In May 2021, the government decided that the conditions for the country's transition to the yellow phase of the epidemic had been met, which also saw restrictions on certain services being eased. In addition, members of the public needed to provide proof of a vaccination certificate, a test certificate, or a certificate of recovery. The same conditions were introduced with respect to attending cultural and sports events. The return to schools and faculties was also approved (MMC, 2021a).

The number of infections had dropped by summer yet started to rise again in August. The school year started in September 2021 for primary schools and high schools and in October for higher education institutions (HEIs) according to the B Model, meaning HEIs could return to operation while following the official recommendations for preventing COVID-19. On 23 August 2021, the government scrapped the free COVID-19 testing, which since then has required payment (with rare exceptions) (MMC, 2021b.) On 15 September 2021, the condition of providing proof of a vaccination certificate, a test certificate, or a certificate of recovery came into force as an obligation in most areas of social life (MMC, 2021c). The COVID-19-vaccination certificate must be shown at the entrances of shops, institutions etc..

Slovenia started to issue digital COVID certificates on 24 June 2021. The EU digital COVID certificate (EU DCP) is a single European, universally valid COVID certificate. The EU DCP is valid in all

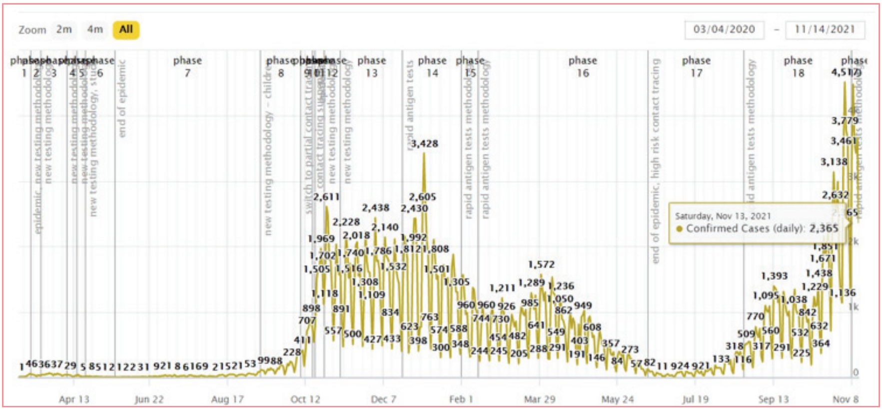
EU Member States and available in both paper and digital form at the zVem portal. The digital version is available as a qualified SIGEN-CA digital certificate and/or smsPASS mobile identity. In the first days of July, NIJZ (the Slovenian National Institute of Public Health) sent them in paper form to around 900,000 citizens who had been vaccinated or had contracted COVID-19 in the previous 6 months. NIJZ also released the zVem mobile application, which combines all important eHealth services for patients, and also enables digital certificates to be stored in a separate collection that is also available without an active Internet connection (NIJZ, 2021).

To enter the zVem portal and fully use the application, a user must have a registered zVem account and log in with a qualified digital certificate or the smsPASS login mechanism. The user does not need to log in to use the digital certificate collection without an Internet connection as they only need to scan the QR code of their digital certificate, which is then stored on their mobile device (NIJZ, 2021).

"The application and the real digital certificate are a continuation of the already announced digitalization and modernization of Slovenian healthcare and public administration", said Minister of Health Janez Poklukar. As a noteworthy novelty, he pointed out the possibility of parents also being able to download certificates for their children and other family members to their phone. "In this way, digital certificates will always be with us and will thus facilitate entry not only into other countries, but also into cultural institutions, hotels, restaurants, sports venues", he added (MMC, 2021b).

In October 2021, the number of new daily cases of infection began to rise again, on 3 November reaching a record of 4,511 new cases. This is the highest number of new daily cases since the beginning of the epidemic in Slovenia. On that day, 735 COVID patients were being treated in hospitals, 169 were in intensive care, and another 8 died from COVID-19. We can observe the daily growth of confirmed cases in Figure 1, noting three spikes that represent the three COVID-19 waves since it started in March 2020. The current situation, during November 2021, is the most devastating.

Figure 1: Growth in new daily cases in Slovenia



Source: COVID-19 sledilnik, 2021.

Figure 2 shows all confirmed cases in Slovenia to date (13 November 2021), revealing an increase to 378,142 cases and 4,920 deaths. Both figures are a product of the "COVID-19 Tracker Slovenia" project which collects, analyses and publishes data on the spread of COVID-19 in Slovenia. The project's organisers wish to give the public a better overview of the magnitude of the issue and a proper assessment of the risk.

"In the experience of those countries where the spread of the virus has been most effectively curbed, correctly collected, up-to-date and transparently published data is vital for the effective response of public healthcare systems. Only then the published data can stand as the basis for understanding of what is happening, for the active self-protective behaviour of people and for accepting the urgency of the safety measures taken. Data is collected from various publicly available sources, and since Saturday, March 28, we also have a direct connection with healthcare institutions and the National Institute of Public Health (NIJZ). They share with us structured data, which is then validated and shaped into a format suitable for visualization to be presented to the public as well as for further work in model development and forecasting. As data published in the media and certain other sources may sometimes be vague and inconsistent, the table also includes notes on sources and deductions based on incomplete data" (COVID-19 sledilnik, 2021).

The COVID-19 sledilnik project includes various data from the NIJZ and other public sources in the database daily (with history), namely, the numbers of tests performed and infections confirmed; the number of confirmed infections by category (age, gender, region and municipality); hospital records for patients with COVID-19: those hospitalized, in an intensive care unit (ICU), in critical condition, discharged from hospital care, recovered; monitoring of individual cases, particularly those in essential activities: working in healthcare, senior citizens' homes, civil protection; healthcare system capacity: number of beds, intensive care units, respirators for ventilation etc. All data are collected and available in the form of CSV files, REST API and Google Docs Sheets (COVID-19 sledilnik, 2021).

Figure 2: The COVID-19 situation in Slovenia

Source: COVID-19 sledilnik, 2021.

On 5 September, after consulting with an expert group the government restricted the operations of restaurants, which could only serve between 5 am and 10 pm, solely permitting seated guests. Nightlife was closed down, and a ban on celebrations, weddings and socializing came into force, except for members of the same household or close family members. Public events are allowed only indoors, but with mandatory spacing of one seat. In addition to complying with the COVID certificate (which was extended to those over the age of 12), the government introduced mandatory identification with an identity document. The previously permitted fabric masks must be substituted with surgical and FFP2 masks. Shops have to provide 10 square metres per visitor and indicate beside their entrances how many visitors they can accept. These measures came into force on Monday, 8 November 2021. As of 15

November, unvaccinated students needed to take self-administered tests three times a week, with the government providing them with 15 free tests per month (GOV, 2021).

The COVID-19 outbreak caused a significant drop in economic activity in 2020.

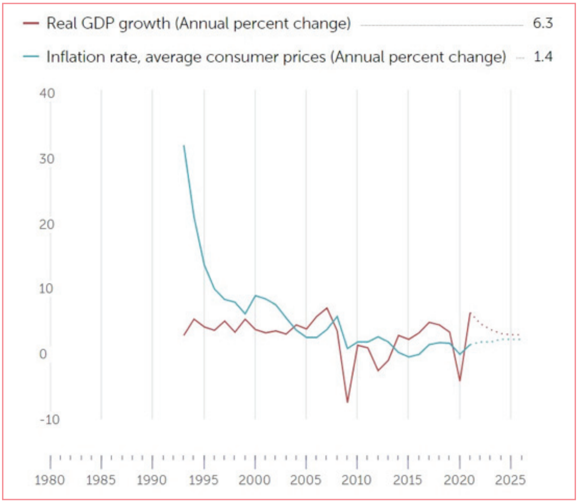
3 Tax and fiscal policy measures in Slovenia during the COVID-19 pandemic

Several years of economic growth and favourable labour market trends have been disrupted by the COVID-19 outbreak, although actions of the government have significantly reduced the epidemic's consequences for the economy by minimizing cost pressures and maintaining economic potential. The fiscal situation deteriorated dramatically in 2020 due to the major economic slump and the steps introduced to reduce the epidemic's effects. The epidemic shock might also create an impact on Slovenia's medium-term strategic goal of reach the average level of EU economic development by 2030 through enhanced productivity growth (IMAD, 2021).

The COVID-19 outbreak caused a significant drop in economic activity in 2020, following 6 years of steady expansion. Apart from attempts to stabilize the economy following the global financial crisis of 2014, the return to GDP growth was primarily driven by increased exports as an outcome of better competitiveness among Slovenian exporters and the recovery of demand among its trading partners. Domestic consumption was steadily bolstered by favourable economic conditions in the world environment, which on top of increased exports became an increasingly important component of economic development in 2014–2019. However, in 2019 it began to decelerate owing to weaker growth in foreign demand and growing international uncertainty. This was reflected in slower export growth and lower investment growth. Up until and including 2019, GDP growth was supported by strong private consumption growth, which was linked to rising employment, higher wage growth, and favourable bank loans (IMAD, 2021).

The COVID-19 pandemic and associated limitations saw all components of GDP drop in 2020 (Figure 3), except government consumption. Private consumption fell sharply because of the restricted movement and limited supply during the quarantine period, when spending opportunities were drastically limited, as well as the increased uncertainty and precautionary savings, even though disposable income remained stable thanks to the government's support measures. Exports and imports plummeted as a result of negative effects in the international environment and foreign and local attempts to prevent the spread of COVID-19, particularly during the epidemic's first wave (IMAD, 2021). Still, GDP growth increased in 2021. In the second quarter of 2021, it was up 16.3% over the second quarter of 2020. Seasonally adjusted GDP saw an increase of 15.7% compared to the second quarter of 2020 and of 1.9% compared to the first quarter of 2021. Household consumption expenditure and gross capital formation contributed the most to GDP growth, while the external trade balance had a negative impact (STAT, 2021).

Figure 3: Macroecnomic trends in Slovenia



Source: IMF, 2021.

Macroeconomic policies that responded quickly and comprehensively were critical for minimizing the epidemic's serious economic and social effects and maintaining the economic potential. The COVID-19 crisis cannot be compared with the global financial crisis that started in 2008; not simply because of the shock it has generated, but also because of the economy's readiness for the crisis and policy responses to it. Several factors determine the extent of the COVID-19-related drop and the projected rate of recovery. These include the Slovenian economy's comparatively solid financial status prior to the crisis and the significant stimulus measures it has introduced. Fiscal aid packages targeted at stabilizing the labour market and assisting firms with liquidity issues helped to avert drops in both economic activity and employment (IMAD, 2021).

Like other Member States, Slovenia responded with extensive fiscal packages seeking to assist the economy on one hand and give direct assistance to the citizens to mitigate its impact on the other. The fiscal packages were adopted by the government in 2020 and some during 2021 to address the consequences of the COVID-19 pandemic. By mid July 2021, nine of such packages (PKPs) had been adopted (GOV, 2021b):

1st PKP – 11 April 2020: A EUR 3 billion anti-corona aid package was released on 11 April 2020. It included measures to preserve jobs, improve the social situation of inhabitants, provide emergency assistance to the self-employed, maintain operations, improve corporate liquidity, and support research projects for combatting the epidemic, reduce attendance fees, wages and exemptions from distribution services, aid to agriculture and public procurement measures. In economic terms, the government took full responsibility for paying the pension and disability insurance contributions for individuals who were working. Employers had to pay a fully tax-free crisis allowance of EUR 200 to their employees whose last salary did not exceed three times the Slovenian minimum wage, and the government fully covered the compensation for workers waiting for work (80% of an employee's salary) but were unable to work due to the unforeseen circumstances.

2nd PKP – 1 May 2020: The second PKP included measures to ensure the liquidity of the economy and to adjust Package 1. The government anticipated this would make it easier for businesses to obtain bank loans. For loans with a maturity of no more than 5 years, the amount of an individual guarantee was to be 70% of the loan principal given to a large company and 80% of the loan principal given to a micro, small or medium-sized business. The Republic of Slovenia's overall guarantee sum under this Act may not exceed EUR 2 billion.

3rd PKP – 1 June 2020: The third package included measures in the fields of labour, public finance, the economy, tourism (tourist vouchers), agriculture, forestry and food, scholarships, student food subsidies, higher education, infrastructure, and public procurement. Part-time subsidies were introduced under PKP3. The government covered half the working hours, up to 20 hours per week. In terms of the economy, one of the most noteworthy initiatives was compensation for companies in the tourism and catering industries that expect to see their savings decline by more than 10% compared to 2019. Tourist coupons were another important economic strategy. All adult residents received EUR 200 vouchers, while minors received EUR 50 vouchers, which could be used at any Slovenian accomodation provider. For these vouchers, the government allocated EUR 345 million.

4th PKP – 11 July 2020: The fourth PKP introduced an extension of the measure for salary compensation for waiting for work, the determination and payment of compensation for the quarantine imposed, the financing of additional staff in social welfare institutions in the public network and the introduction of a mobile application for health protection for informing about having come into contact with COVID-19.

5th PKP – 24 Oct 2020: This package presented measures concerning the fields of health, labour, social protection, the economy, education, the enforcement of criminal sanctions and justice, agriculture, forestry and food, and infrastructure. It expanded the measure of 100% salary pay for workers undergoing quarantine as a result of a work-related contact with an infected individual. Temporary remedies in the form of a basic monthly income and partial compensation of lost income were reinstated for self-employed persons and micro-enterprises.

6th PKP – 28 Nov 2020: The sixth package proposal provided for subsidized waiting for work, extending the moratorium on loans, subsidizing part-time work, financing allowances for hazards and special burdens, partially compensating the fixed costs of affected economic operators, deferring rental payments by tenants of office buildings or business premises, providing health services and facilities.

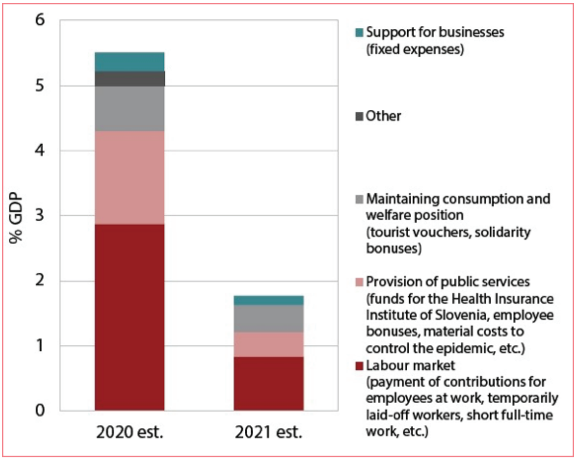
7th PKP – 31 Dec 2020: Focusing more on the population, this package provided crisis allowance for pensioners, students, new-borns, recipients of child allowance, parents with several children, older farmers and low-income employees, and a basic monthly income for religious employees. It also provided aid for carrying out rapid COVID-19 tests in the economy, aid for air carriers and aid to fire brigades.

8th PKP – 5 Feb 2021: PKP8 is primarily concerned with preserving employment; the government extended the measure for people on leave until April 30, with the option of extending it until 30 June 2021. Employers were to be relieved of paying social security payments for employees whose earnings did not meet the minimum wage without allowances, and employers were to be relieved of paying social security contributions for employees in the second half of 2021. A solidarity allowance for high school and university students over the age of 18 and students studying abroad was introduced. The measure for waiting for work and subsidizing the minimum wage was extended.

9th PKP – 14 July 2021: The last package introduced new vouchers for citizens in the amount of EUR 100 for adult citizens and EUR 50 for minors that could also be used for additional activities, besides tourism. Assistance to the meetings and events industry, an extension of the part-time compensation measure and compensation measure for employees ordered to quarantine at home were also included with additional health measures.

According to the IMAD's estimates, fiscal measures amounted to around 5.4% of GDP in 2020 and were mainly aimed at preserving jobs and the economic potential (Figure 4) (IMAD, 2021).

Figure 4: Estimation of expenditure for containing the epidemic in 2020



Sources: MF, 2021; SURS 2021; calculations by IMAD.

To contain overall spending growth, limits or postponements of non-urgent expenditure had to be specified in the amended state budget for 2020, and funds transferred to finance the removal of COVID-19-related effects (Government of the RS, 2020). The adequacy of the expenditure ceiling in line with the fiscal rules for 2020 was not assessed due to the extraordinary circumstances in which the general escape clause relating to fiscal rules on the EU and national levels was activated, although the

European Commission and the Fiscal Council provided guidance on fiscal policies with an emphasis on the temporariness and medium-term fiscal sustainability of the measures taken (IMAD, 2021; European Commission, 2020; FC, 2020a). The Fiscal Council is an independent and autonomous governmental institution that oversees the management of Slovenia's fiscal policy. It began monitoring the fiscal effect of one-off actions taken during the COVID-19 epidemic and regularly updates its evaluation (Burger, 2021).

The Fiscal Council also expressed the opinion that when adopting measures to mitigate the aftermath of the crisis they should be implemented in a logical order, addressing the areas most severely affected by the epidemic at certain stages, as much as and as effectively as this is possible, while leaving room for economic policy in the later stages of recovering from the epidemic's consequences and the economic recovery, when different challenges will arise (FC, 2020b).

According to preliminary statistics, the state budget deficit in the first 10 months of 2021 was EUR -2.339 billion, while the deficit would have been EUR -423 million if the COVID-related actions had had no direct effect. The state budget deficit is forecast to be EUR -3.958 billion this year, according to a Ministry of Finance projection of the outcome in September, which is roughly EUR 1,200 billion more than the budget had estimated last autumn (FC, 2021).

Without considering the direct effect of the COVID-related initiatives, revenue in the first 10 months was 19.6% greater than at the same time last year, or 8.1% higher. Once again, without considering the direct effect of the COVID-related actions totalling EUR 2,420 billion, spending in the first 10 months was 13.9% more than at the same time last year, or 7.5% higher. Higher labour expenses and investments are mostly responsible for the latter (FC, 2021).

Since March 2020, state budget expenditures on the COVID-related actions have totalled EUR 4,424 billion. The greatest single measure was EUR 928 million for employee allowances, of which some EUR 720 million was paid in the first 10 months of this year (FC, 2021).

Countries will need to adopt public finance policies that take account of their unique circumstances.

4 Policy recommendations for Slovenia and concluding remarks

The COVID-19 crisis has emerged and unfolded unlike any other, including the one from a decade ago, chiefly because it was caused by an exogenous factor, while the financial crisis of 2008 stemmed from within the economic sector. Moreover, it was different not only in terms of the shock it caused, but in how the economy was prepared for the crisis and policy responses to it (IMAD, 2021). In this respect, the current crisis has several symmetrical qualities in its characteristics since it has afflicted people all over the world, while its economic effects have been extremely varied and asymmetric, largely due to differences in economic structures and responses of economic policymakers, both of which are directly tied to a country's budgetary status (Interreg Europe, 2021).

Countries will need to adopt public finance policies that take account of their unique circumstances and include a mix of measures to enhance long-term tax collection and improve the quality of government expenditure, including improved public finance oversight (OECD, 2021). The seriousness of the situation saw EU leaders decide already early on in the pandemic, in April

2020, to work towards an EU recovery fund with the help of the European Commission. The rapid and comprehensive response of macroeconomic policies has been key to mitigating the negative economic and social impacts of the pandemic and preserving economic potential (IMAD, 2021) and thus a proposal was presented in May 2020. A EUR 750 billion recovery fund was agreed by the leaders of the EU called Next Generation EU. Besides this recovery fund, the long-term EU budget for 2021–2027 worth EUR 1,074.3 billion was agreed among the EU leaders. This budget is, inter alia, intended to support investments for the digital transformation and green transition. Already in place is EUR 540 billion in funding focused on three pillars: businesses, workers, and Member States. Altogether, the overall recovery package introduced by the EU amounts to EUR 2,364.3 billion (Consilium, 2021; European Commission, 2021).

The outbreak together with the measures put in place to reduce its impacts are the biggest contributors to the serious decline in public finances seen both last year and this year. The measures implemented in Slovenia are comparable to those in other nations, and mostly followed the principles that they should be brief and concentrated on dealing with the epidemic's immediate impacts. The large-scale package, which amounts to roughly 5% of GDP per year, has played a major role in absorbing the drop in economic activity last year and strengthening the revival this year (FC, 2021). Slovenia's recovery and resilience plan were given a favourable evaluation by the European Commission in July 2021, opening the way for the EU to disburse EUR 1.8 billion in grants and EUR 705 million in loans under the Recovery and Resilience Facility (RRF). This funding will aid in the implementation of Slovenia's recovery and resilience plan's critical investment and reform initiatives. It will be necessary to support Slovenia's ability to recover from the COVID-19 epidemic (Consilium, 2021).

Slovenia's plan was evaluated by the European Commission using the RRF Regulation's criteria. The Commission examined whether Slovenia's investments and reforms in the post-COVID plan promote the green and digital transitions, contribute to successfully resolving problems listed in the European Semester, and increase the country's development potential, job creation, and economic and social resilience (Consilium, 2021). These are all important aspects, along with structural trends that have an impact on how societies and economies function around the world and must be considered while planning recovery and fiscal strategies. Most trends like population ageing, slow productivity growth, globalization and mobility, digital trends and disruptive technologies, and global environmental threats have somehow been influenced by the COVID-19 pandemic and could affect public finances, hence a forward-looking public finance strategy should carefully consider these trends (OECD, 2021). The European Commission found that Slovenia plans to allocate 42% of its overall budget to climate-related initiatives. The strategy for investing in renewables, increasing energy efficiency and the seismic restoration of buildings, promoting climate change adaptation, and upgrading rail infrastructure are all measures that will help Slovenia secure its green transition. Further, Slovenia plans to commit 21% of its entire budget to measures that promote the digital transformation. These efforts include attempts to digitalize public administration and businesses and invest in connectivity and digital skills (Consilium, 2021). The digitalization

Slovenia plans to commit 21% of its entire budget to measures that promote the digital transformation.

of the economy has been underway for several decades, but the COVID-19 crisis has accelerated its application and shown the importance and usefulness of implementation (OECD, 2021).

According to the IMAD's recommendations (IMAD, 2021) for Slovenia, which are in line with the EU's expectations, the recovery measures should be linked with structural changes to increase the economy's and society's resilience to shocks and ensure long-term growth. Reducing the socio-economic effects of the pandemic remains a top priority for economic policy in the medium term, together with preventing any further spread of the COVID-19 outbreak, following the health protective measures and increasing the vaccination rate given that a healthy and optimistic population is essential for prosperity. As long as measures to ameliorate the current effects of the crisis are needed to maintain the economic and social potential, their removal must be gradual and well planned. When the situation returns to normal, removing the measures too soon could jeopardize the recovery. However, if policies are not well targeted and stay in place for too long, they might wreak havoc on allocative efficiency.

Simultaneously, measures for economic reform and modernization should be planned and implemented as soon as feasible, with emphasis on maximizing new possibilities and hastening the transition to a highly productive, low-carbon, and circular economy by appropriately promoting sustainable mobility and upgrading the related infrastructure, also by harnessing state-of-the-art technological solutions and more efficient waste management. To accelerate productivity growth, disruptive innovations should be emphasized, R&D activity strengthened and the digital transformation accelerated, so as to shift to smart factories, implement disruptive technologies and increase investment in developing the 'workforce of the future'. The role of the government and its institutions should be reinforced, while it is important to improve governance mechanisms to be able to identify, coordinate and effectively deal with all of the developmental challenges we face. Last but not least, social development was intentionally saved for last since it includes everyone in society. Social development must become inclusive with strong attention being paid to intergenerational solidarity, focusing on the capacity of the long-term care system and guaranteeing a comprehensive pension reform, while encouraging lifelong learning. We need to reconsider the culture of dialogue as the nation is becoming ever more divided, politically and otherwise. The process of democratic co-decision-making should be considered with communications and consultations among all stakeholders, including of course civil society. Finally, measures should promote and encourage healthy living (IMAD, 2021).

We need to reconsider the culture of dialogue as the nation is becoming ever more divided, politically and otherwise.

To this end, it is critical to maximize the use of the European Commission's funding, with a stress on raising the proportion of available resources dedicated to enhancing R&D and innovation, accelerating the digital transformation, and ensuring a smooth transition to a low-carbon circular economy to ensure the path to the green transition. A comprehensive strategy combining recovery measures and structural changes would boost the economy and society's resilience to possible shocks in the future and promote long-term development sustainability and thereby improve society's well-being, which is the fundamental goal of the Slovenian Development Strategy (IMAD, 2021).

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Chapter 8

Fiscal policy responses to the COVID-19 pandemic in Southern European countries: A (lost) opportunity for a sustainabilty transition

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1 Introduction

Since the COVID-19 pandemic started at the end of 2019, economic activity and the fiscal positions of EU countries have been put under considerable stress. In the aftermath of the latest financial crisis which began in 2007–2008 with the collapse of Lehman Brothers and large financial services providers, 2019–2020 was a time by which even the most debt-ridden countries of Southern Europe, like Greece, were showing signs of recovery and a return to a growth track. The COVID-19 pandemic has hit the fragile public financing systems and fiscal recovery of Southern European countries hard, i.e., Cyprus, Greece, Italy, Spain and Portugal, that had to undergo strict fiscal reforms in the last decade. These countries ought to address a fresh socio-economic challenge that holds important fiscal and public financing ramifications. This call for action emerged shortly after coming out of a prolonged and deep public debt crisis and soon after showing signs of both recovery and social rest. The COVID-19 crisis and need to act has emerged along with the need to address issues related to the transition to sustainability as promoted by national development plans, the EU's (e.g., the European Green Deal, Just transition etc.) and global targets (UN Agenda to 2030 and the 17 Sustainable Development Goals, the Paris Agreement) to which Southern European countries have committed themselves.

The COVID-19 pandemic is not the first humanity has experienced in the recent past, nor is it the most dangerous for human existence. Experience includes for instance the 2002–2004 SARS outbreak and the HIV/AIDS outbreak in the 1980s. Nevertheless, it seems to be one of the most challenging pandemics in recent years for the healthcare and fiscal systems, if not one that has brought them to the verge of collapse (Ortega and Orsini, 2020; Zheng, 2020). According to the World Bank's Global Economic Prospects, the pandemic has plunged most economies into recession, with per capita income contracting in the largest fraction of countries globally since 1870 (World Bank, 2020).

Given the gloomy realizations and estimations of the pandemic's economic impact, significant fiscal support has been mobilized so as to limit the socio-economic effects. Countries have mobilized resources and public spending and implemented specific measures, including tax relief, social security contribution deferrals, healthcare spending, and sector-specific support (e.g., transport, tourism, exporting sectors). As discussed in Tsani et al. (2021a), the pandemic has arisen at a time of debate and action on the transition to sustainability, global and regional initiatives such as the Paris Agreement, the UN Agenda to 2030 and the European Green Deal, to address climate change and environmental degradation. This has led to a fresh debate in the literature on the pandemic's impact on the sustainable development of the economies (Barbier and Burgess, 2020; Aroroa and Mishra, 2020; Schaltegger, 2020; Amankwah-Amoah, 2020) and on how the health crisis, if properly managed, can be seen as a window of opportunity for the transition to sustainability (Bodenheimer and Leidenberger, 2020; Ioannides and Gyimóthy, 2020; Markard and Rosenbloom, 2020). This window of opportunity and its implications are also important for the highly indebted countries of Southern Europe that must find solutions to ease their fiscal positions and mobilize resources in a resilient and sustainable manner.

While COVID-19 constitutes an unparalleled shock, the mobilization of significant public capital and the coordination of fiscal policies indicate that this shock also offers a good opportunity for sustainable change and transformation, including the fiscal, public financing, spending and taxing schemes. This can materialize if efforts and funding focus, among others, on socio-economic and fiscal system innovation (Lambert et al., 2020; Zeitoun et al., 2020; Li-Ying and Nel, 2020), infrastructure and green investment support (Engstrom et al., 2020; Naidoo and Fisher, 2020), cross-border cooperation (Mallinson, 2020), action against poverty and access to healthcare for different socio-economic groups and regions (Patel et al., 2020; Tsani et al., 2021b; Abedi et al., 2020). If properly managed, COVID-19 can provide an unprecedented opportunity to modernize and upgrade the tax and fiscal policy tools through digitalization, increased transparency and a lower administrative burden. The coordinated mobilization of public capital and intervention, as brought forward by the COVID-19 pandemic, provides a prime opportunity for a sustainable change and transformation of the fiscal systems, the public policies domain, and beyond.

This paper reviews fiscal policy responses in selected countries in Southern Europe with the aim of identifying tax and fiscal system-specific interventions, infrastructure and innovation support that can ensure resilience in the current shock, and a sustainable system (socio-economic, environmental, fiscal) change and transformation. The review reveals that COVID-19-related responses have been limited in scope, largely neglecting the need for a transition to sustainability and innovation support, including those in the tax and fiscal systems. The analysis concludes by offering useful recommendations for policymaking with regard to the fiscal system and public financing in times of crisis. The remainder of the paper develops as follows. Section 2 briefly reviews COVID-19 developments in the selected countries of Southern Europe and their fiscal and macro-economic stances over the last few years. Section 3 summarizes and discusses the main fiscal and tax approaches implemented in the selected countries as well as in the largest EU economies (Germany and France) and the five richest economies in the world, namely the USA, China, India, Japan, and the Russian Federation. The review of these countries indicates a lack of response to the COVID-19 pandemic with a forward-looking/sustainable transition approach in the group of well-positioned countries to address shocks while addressing sustainability imperatives. As the EU is a global leader in sustainable development, energy transition, and climate change mitigation and adaptation actions, understanding of this ‘rich’ community’s lack of action gives more reasons

COVID-19 pandemic provides a prime opportunity for a sustainable change and transformation of the fiscal systems, the public policies domain, and beyond.

and useful insights for EU policymaking to push a system change sustainability-driven policy agenda on the regional and global levels. The last section concludes with some considerations for policymaking.

2 The economic and fiscal stance in selected Southern European countries in the COVID-19 era

COVID-19 is taking a significant toll on human lives and economic activity throughout the European Union. In the case of the Southern European countries, Italy has recorded the greatest loss of human lives since the beginning of the pandemic (Table 1). Italy was the first EU country to experience a severe breakout of the pandemic in early 2020. To some extent, the spread of the virus in Italy and the high death figures provided an early signal to other EU countries to introduce measures to prevent COVID-19. In terms of economic activity, Spain recorded the biggest contraction in GDP in 2020, reflecting the pandemic's impact on core production and export sectors of the country, especially tourism (Figure 1). Greece may be characterized by a long and deep contraction in the economic activity over the last decade because of its financial crisis and the austerity measures implemented. This was followed by anaemic growth in the period 2017–2019, that came to an abrupt halt in 2020 with the outbreak of the pandemic.

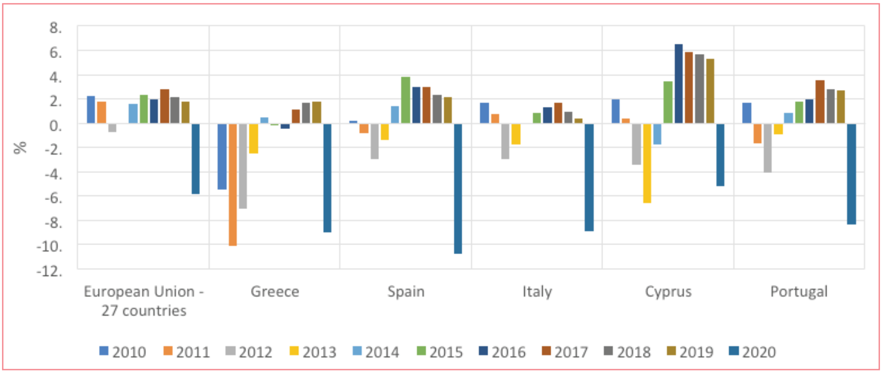
Table 1: The impact of COVID-19 in selected Southern European countries

Country	Population in 2019	Cases	Cases as % of the population	Deaths	Deaths as % of the population
Cyprus	875,899	127,036	14.50	587	0.07
Greece	10,724,599	815,068	7.60	16,560	0.15
Italy	59,816,673	4,835,435	8.08	132,618	0.22
Portugal	10,276,617	1,102,438	10.73	18,231	0.18
Spain	46,937,060	5,042,803	10.74	87,647	0.19

Sources: Author's compilation based on population data for 2019 from Eurostat (2021) and ECDC (2021) data on COVID-19 cases and deaths as at 12 November 2021.

While the Southern European countries have suffered to various degrees from the last financial (and fiscal) crisis, at various speeds they have managed to return to a growth track and to sustain their government dept and expenditures. Unfortunately, COVID-19 has introduced a new shock to the fiscal balances, seeing countries increase their government debt in 2019–2020 (Figure 2).

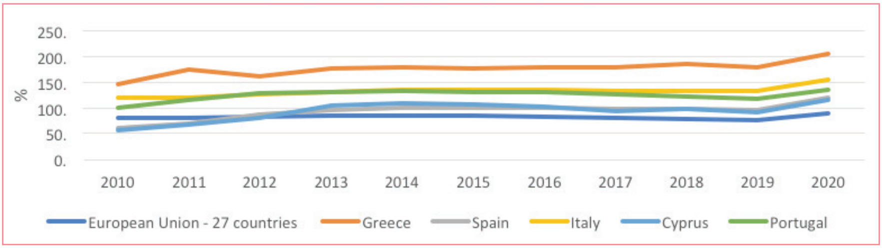
Figure 1 Gross domestic product in selected Southern European countries and in the EU-27 in 2010–2020



Source: Author's compilation based on Eurostat (2021) data.

On a country basis, Cyprus recorded its first case of COVID-19 in March 2020 (IMF, 2021). The control over the first wave achieved by early April in 2020 was followed by a second wave in October 2020–January 2021. The government put in place various measures ranging from travel and mobility restrictions, the closure of schools, hotels and businesses, and mandatory mask-wearing in large indoor spaces to the implementation of a temporary strict lockdown in January 2021. New cases again increased after March 2021, and the government announced new restrictive measures until end of May 2021. The lifting of the restrictions has been implemented in phases. These started with the reopening of construction sites, retail stores and the public sector according to social-distancing and health guidelines, and continued with the reopening of public schools and open-air restaurants and the allowing of movement within the country. Airports, shopping malls, ports, restaurants, hotels, theatres, and open-air cinemas were re-opened in June 2021.

Figure 2: Government debt in selected Southern European countries and in the EU-27 in 2010–2020



Source: Author's compilation based on Eurostat (2021) data.

The contraction of the economy was considerable in 2020 (5.2% in 2020), although real GDP increased by 5.1% in the first half of 2021 compared to the same period in 2020, with domestic demand being the main driver (Ecfin, 2021). Private consumption rose by 2% in the first half of 2021 following increased employment. Government consumption has also increased similar to the external demand for services. The successful vaccination campaign in Cyprus resulted in a good performance of the tourism sector. Revenues from tourism more than doubled in January–July 2021 compared to the same period in 2020 (Ecfin, 2021). Given the increased public spending, government expenditure is forecast to grow by 7.4% in 2021, driven mainly by the increased social payments. In addition, three supplementary budgets have been approved in 2021, which among others include the extension of COVID-19 measures. Despite these increases, the government deficit is expected to be lower because of revenue growth mainly on the back of higher revenue from taxes spurred by the economic recovery.

Cyprus faces significant environmental and climate change related threats such as desertification, water scarcity, air, and coastal pollution. According to the latest Sustainable Development Report (Sachs et al., 2021), Cyprus still faces significant challenges, ranging from environmental quality to good health and well-being, security and cooperation. Cyprus ranks 40th out of 165 countries in the 2021 Sustainable Development Index (Table 3).

Table 3: Sustainable Development Index score and rank of selected Southern European countries

Country	2021 SDG Index Score	2021 SDG Index Rank	SDG1	SDG2	SDG3	SDG4	SDG5	SDG6	SDG7	SDG8	SDG9	SDG10	SDG11	SDG12	SDG13	SDG14	SDG15	SDG16	SDG17
Cyprus	74.9	40																	
Greece	75.4	37																	
Italy	78.8	26																	
Portugal	78.6	27																	
Spain	79.5	20																	

Source: Sachs et al., (2021). The Sustainable Development Goal (SDG) dashboard shows the overall performance assessment in relation to the 17 SDGs. Performance is indicated by the use of a specific colour: Green indicates SDG achievement (i.e., all indicators for the goal have been rated green). Yellow, amber and red indicate increasing distance from SDG achievement, with red denoting the largest distance away from the target achievement of the SDGs.

Greece recorded its first COVID-19 case in February 2020. The government followed a very strict set of measures and restrictions in the first half of 2020, including a national lockdown that restricted all but essential movement and economic activity, school closures and travel restrictions (IMF, 2021). The first control measures were gradually being lifted after June 2020 in the hope the tourism sector would benefit from the relaxation of measures and the income generated would make up for the loss of economic activity in the first half of 2020. The relaxation of measures was followed by a second surge in cases. In response, the government introduced a second lockdown on 7 November 2020. The lockdown lasted until early 2021 while some restrictions remained in place even longer. The rise in cases in February and March 2021 led to a third lockdown being implemented from March until May 2021. The situation was fairly manageable over the summer, but cases are increasing fast at the end of October/November 2021 (ECDC, 2021).

Greece was slowly managing to recover from the last financial and debt crisis just as the COVID-19 pandemic arrived. By late 2019, the country was experiencing progress with structural reforms, improved competitiveness, fiscal credibility, rising activity, incomes, and confidence (OECD, 2021a). Rating agencies upgraded Greece's sovereign rating and outlook, and the country managed to return to the international bond market with sovereign bond yields recording their lowest level since adoption of the euro in early 2020 (OECD, 2021a). The lockdown measures have halted the lion's share of production and commercial activity. Tourism, a major sector in terms of income and job provision, has been significantly impacted by the pandemic restrictions. The government's response to the health crisis has aimed chiefly at supporting firms and incomes. However, the extraordinary drop in nominal GDP, along with the fiscal support measures and lower revenues, has seen the budget shift from a substantial primary surplus to a deficit and a rise in the already high public debt ratio.

Despite the more than 10-year-long debt crisis and reform efforts recorded in Greece, the country still needs to structurally enhance the expenditure prioritization and effectiveness of its public finances (Moretti, 2019). Effective spending also requires consistent and reliable costing of policies. Public investment spending continues to suffer from poor planning and implementation and has declined recently while any infrastructure investment (Greece's infrastructure continues to lag behind other OECD countries (OECD, 2019)) is mainly funded through EU funds. The Greek tax system may be described as having high statutory tax rates (personal income taxes, social insurance contributions) and indirect taxes. The planned reduction of the tax-free personal income threshold in 2020 was cancelled in mid 2019. In order to raise the well-being of current and future generations and ensure a good quality environment, Greece must address many significant environmental challenges like its high reliance on fossil fuels, urban air pollution, water management etc. Greece ranks 37th out of 165 countries in the 2021 Sustainable Development Index (Table 3).

Italy was hit very hard in the first COVID-19 wave that swept across Europe in early 2020. The onset of COVID-19 and high fatality rates led the government to impose intensive lockdowns, resulting in a strong contraction of the Italian economy (OECD, 2021b). The first strict lockdown was followed by a string of regional lockdowns and new modes of remote working, that have eased the impact of the harsh lockdowns first used in response to the pandemic. The vaccine campaign has been extended to all over the age of 12 and COVID-19 cases were declining in the first half of 2021. Manufacturing and construction have operated under new safety rules (e.g., staggered shifts, spaced workstations, temperature checks, masks). The Italian government has rolled out generous government support to prevent job losses and maintain the country's productive capacity. The support included, among others, loan guarantees and moratoria on debt repayments. Short-time work schemes and the ban on firing were supplemented with income support and tax payment deferrals. The significant fiscal support in 2021 is expected to buoy the near-term recovery. Higher public investment, including from Next Generation EU funds, will support private sector investment alongside higher confidence and demand (OECD, 2021b).

Italy suffers from a series of drawbacks in the fiscal and public financing sphere. Trust in public institutions is one of the lowest across the OECD countries. The effectiveness of its public sector is also comparatively low, while digitalization and innovation in the public domain are still underperforming. Regulatory burdens continue to exist while the quality of regulations is still characterized as poor. The improvements in the public domain and the need for a digital revolution are also findings contained in the latest Sustainable Development progress report (Sachs et al., 2021). This adds to the challenges for the transition to sustainability that are linked to environmental well-being and resilience. Italy ranks 26th out of 165 countries in the 2021 Sustainable Development Index (Table 3).

Spain has been heavily affected by the COVID-19 outbreak ever since it recorded its first case in February 2020. During the first wave, a state of emergency took effect from March to June 2020 with restrictions on movement for essential purposes only, limited commercial, cultural, recreational, hotel and restaurant activities, and reduced public transport operations (IMF, 2021). The first state of emergency was lifted in June 2020. A coordinated action plan was agreed between the government and the autonomous communities in September 2020. The second wave of measures in response to COVID-19 was implemented between October 2020 and

Trust in public institutions is one of the lowest across the OECD countries.

May 2021. With the state of emergency ending in the summer of 2021, most regions began to relax some of their restrictions. According to the latest OECD Economic Survey of Spain (OECD Economic Surveys: Spain, 2021), investments and reforms that facilitate long-term growth should be a priority for Spain and guide the utilization of the EU funds. The COVID-19 pandemic has accentuated broad structural challenges in Spain like the persistent unemployment, especially youth unemployment, the large share of workers on temporary contracts, and barriers to business growth and low productivity growth. The pandemic has also illustrated the benefits of a digitalized economy, one that Spain could further benefit from.

Even prior to the COVID-19 crisis, Spain's public finances were under long-term pressure from the elevated public debt and the ratio of workers to retirees, which is projected to be one of the highest in the OECD by 2050. The fiscal policies put forward may be characterized as timely responses to the COVID-19 crisis, but recovery is not expected to be recorded before the end of 2021. The large economic contraction of 10.8% in 2020 reflects the strict containment measures, but also structural features that have made the Spanish economy more vulnerable (OECD, 2021c). These include the importance of tourism, the high prevalence of small and medium-sized enterprises, and the widespread use of temporary contracts.

In terms of meeting the sustainable development goals, Spain ranks 20th out of 165 countries in the SDG index rank (Table 3). Nevertheless, the country is still left with some critical challenges to address, ranging from poverty an alleviation, good health and well-being to reducing inequalities, digitalization and efficiency in industrial production, to name just a few.

Portugal recorded its first COVID-19 infection in March, 2020. The government responded with a strict lockdown in early 2020 and has repeated this approach in the following waves of COVID-19. The economy has been significantly affected by the pandemic, showing a GDP decline of 7.6% in 2020 and a 3.3% decline (quarter on quarter) in the first quarter of 2021 (IMF, 2021). Since the beginning of the pandemic, the government has responded with a range of measures in support of the economy and jobs.

The economic conditions in Portugal have improved markedly over the past few years (OECD, 2020). GDP is now back to its pre-crisis level and the unemployment rate has dropped 10 percentage points since 2013 to below 7%, one of the largest reductions in any OECD country in the past decade. Nevertheless, legacies of the crisis remain such as the poverty rate among the working-age population and well-being. Strong exports sustained economic activity in the years immediately following the crisis. This was underpinned by the rapid growth of the tourism sector, as well as exports across the manufacturing sector. The public debt ratio has been falling. Still, the government still faces a high debt burden. Further improving public finances necessitates a reduction of the fiscal deficit and maintenance of a primary surplus. There is also scope for a smoothing of the public finances by broadening the tax base. Despite the positive outlook for the Portuguese economy prior to the pandemic, the COVID-19 outbreak has reverted the trends. The freeze of economic activity has held important implications for public revenues while support measures have increased government spending. Among the measures, those with a direct impact on public spending are the subsidies for households and the simplified scheme for the temporary suspension of labour

Since the beginning of the pandemic, the government has responded with a range of measures in support of the economy and jobs.

contracts according to which around 50% of the gross remuneration is ensured by Social Security, the deferring of tax payments and provision of credit lines.

Like the other Southern European countries reviewed here, Portugal faces the challenges of sustainable and resilient socio-economic development. Portugal ranks 27th out of 165 countries in the 2021 Sustainable Development Index (Table 3). The main challenges to address and goals to meet are concerned with environmental conditions on land and below water, climate change mitigation and adaptation, but also the challenges of hunger reduction, better consumption and production, and of reduced inequalities.

3 Fiscal developments: little interest in structural and system changes

Policy responses to the COVID-19 pandemic include the application of measures in terms of fiscal, macroeconomic and monetary policy. Fiscal policy responses were the first to emerge and have seen the most use (IMF, 2021). This brings to light the importance of regulatory measures that allow for the emergency use of budget funds (Barroy et al., 2020). For the purposes of this paper, the fiscal measures adopted in the selected Southern European countries and large EU and global economies were reviewed. Information was retrieved from the IMF policy tracker of responses to COVID-19 (IMF, 2021). This policy tracker provides details of the fiscal, macroeconomic and monetary policies implemented in each country. Since the focus of the paper is on fiscal measures, only fiscal policies are presented and discussed in this section. Fiscal responses include packages for the healthcare system, long-term care, short-term work, compensation packages for economic groups (e.g. self-employed, small businesses) for the lost earnings related to the forced closures or sickness, deferral tax payments (e.g. VAT, personal or income tax), social security contributions, compensation of companies or labour for forced leave, tax relief measures for the sectors mostly hit by the pandemic (like hospitality, tourism, transport, agriculture), hardship funding for businesses, unemployment assistance and several other variations of fiscal support.

Table 4 summarizes the fiscal measures adopted in the selected Southern European countries. To assist the reader, fiscal measures are presented in bullet points with reference to the specific fiscal tool/approach used and the targeted group in receipt of support. Readers interested in the details of the fiscal policies used, and the amounts allocated to each measure (where such information is available), should refer to the detailed presentation of the IMF policy tracker of responses to COVID-19 (IMF, 2021). The selected economies include the debt-ridden economies of Southern Europe, i.e. Cyprus, Greece, Italy, Spain and Portugal that suffered tremendously during the last financial crisis and had to implement harsh fiscal reforms. In addition to these cases, this section presents fiscal measures adopted in the large economies of the EU, i.e. Germany and France, as well as in the five richest economies in the world. The selection is based on average GDP, in purchasing power parity terms (GDP, PPP constant 2017 international $) in the period 2009–2019. GDP data in purchasing power parity terms for 2009–2019 are extracted from the World Bank's World Development Indicators (World Bank, 2020). Series were used to estimate the average GDP between 2009 and –2019. Based on this calculation, the seven richest economies, including Germany and France, whose fiscal policy responses are summarized and discussed therein, are (in descending order): the USA, China, India, Japan, and the Russian Federation. The responses of these countries are also included in this paper to highlight the finding that the lack of response to the COVID-19 pandemic with a forward-looking/sustainable transition approach is an issue that extends beyond the EU's borders. Since the EU is a global leader in sustainable development, energy transition, and climate change mitigation and adaptation actions, understanding of this lack of action among the large economies gives more reasons and useful insights for EU policymaking to push a system change sustainability-driven policy agenda on the regional and global levels.

The selection is based on the countries' wealth, i.e., considering the 'rich' economies that may be better positioned to couple their response to the COVID-19 pandemic with sustainability transition targets in the fiscal and tax systems and beyond. The selection does not consider the exposure of economies to COVID-19 (i.e. the number of cases recorded in the respective countries/economies, mortality, morbidity, infection rate etc). The pandemic's severity in each economy indeed might impact on the extent of the fiscal policy response. However, as the economies reviewed operate in a globalized market and form part of the larger global economy, it is expected that they will respond to the pandemic by acknowledging that they are exposed to an imminent global threat, irrespective of whether the pandemic fully evolves in their respective territories in the specific period or not (Tsani et al., 2021a).

Table 4: Fiscal response to COVID-19 in the selected Southern European countries

Cyprus	• Economic support package • Income support for households, including a leave allowance for parents and those with health issues • Wage subsidy for affected businesses • Grants to small businesses and self-employed support for the tourism sector • 2-month deferral of VAT payments • A temporary VAT cut to stimulate the tourism/hospitality sector • 3-month suspension of the scheduled increase in the contribution to the General Healthcare System • Interest subsidy for new business and housing loans for 4 years • Guarantees on or the financing of credit facilities, increased state guarantees to expand existing European Investment Bank-supported loans to SMEs • A longer repayment period for the deferred VAT one-off grants to defray operational costs
Greece	• Economic support package • Income support for households, including a leave allowance for parents and those with health issues • Wage subsidy for affected businesses • Grants to small businesses and self-employed support for the tourism sector • 2-month deferral of VAT payments • A temporary VAT cut to stimulate the tourism/hospitality sector • 3-month suspension of the scheduled increase in the contribution to the General Healthcare System • Interest subsidy for new business and housing loans for 4 years • Guarantees on or the financing of credit facilities, increased state guarantees to expand existing European Investment Bank-supported loans to SMEs • A longer repayment period for the deferred VAT one-off grants to defray operational costs

Italy	• "Cura Italia" emergency package to strengthen Italy's healthcare system • Measures to preserve jobs and support the income of laid-off workers and the self-employed • Measures to support businesses • Tax deferrals • Postponement of utility bill payments in the most affected municipalities • Measures to support the supply of credit • Liquidity for businesses and households • Income support for families • Grants for SMEs and tax deferrals • Labour and social measures for income support for families and certain workers • Extension of the short-time work programme • Suspension of social security contribution for new hires • Extensions of the moratorium on SMEs' debt repayment and the time to pay back tax obligations • Quick relief for the sectors affected by the latest round of the COVID-containment actions • Grants to SMEs and the self-employed • Income support for families • Extended social contribution exemptions for affected businesses • Extension of the firing ban and the short-time work schemes
Portugal	• Financial incentives to support the progressive reopening and to normalize business activity • State-guaranteed credit lines for medium, small and micro enterprises in affected sectors • Tax and social security contribution deferrals for companies and employees • Financial support for the self-employed affected by the virus; the unemployed; people forced to stay home to care for children, and; those sick or in isolation due to the virus • Government loans to the national airline • Income support measures • Expanded subsidy for employment and resumption of activity

	• Extended support for workers' lost income and coverage for those without access to unemployment protection • Staff reinforcement in the civil service, particularly in health and education • Extraordinary risk subsidy for health professionals at the forefront of the response to COVID-19 • VAT tax rebate to stimulate consumption in the catering sectors, accommodation and culture • Renewed incentives for the normalization of activity (up to 2 national minimum wages per worker) for micro-companies • Enlarged and more flexible business support programmes • Support for the payment of non-housing rents • New and expanded credit lines, targeting SMEs, exporters and the tourism sector • Microcredit to small companies • Amendment of the legal regime covering residence permits for investment • Extension of tax benefits for investment and the entertainment and cultural sectors • Support for the progressive resumption of activity offered to firms • Broadening access to simplified layoffs for firms not forced to close • Withholding tax payment deferrals • Postponement of credit payments on COVID-19 credit lines until the end of the year
Spain	• Budget support from the contingency fund to the Ministry of Health • Transfers to the regions for regional health services • Additional healthcare-related spending including research on COVID-19 • Entitlement of unemployment benefit for workers temporarily laid off under the Temporary Employment Adjustment • Direct aid for corporate solvency support • An extraordinary benefit for self-employed workers, including seasonal self-employed, affected by the suspension of economic activity

- Increased sick pay for COVID-19-infected workers or those quarantined
- Introduction of a new means-tested Minimum Income Scheme
- New rental assistance programmes for vulnerable renters
- Additional state contribution to the State Housing Plan 2018–2021
- Subsidy for vehicle renewals under the MOVE II programme
- Investment in digitalization and innovation in the tourism sector
- Benefits for workers who have exhausted unemployment benefits
- Extension of unemployment benefit to cover workers laid off during the probation period
- A temporary monthly allowance for temporary workers whose contract (at least 2 months' duration) expired during the first state of emergency and were not entitled to collect unemployment benefits
- A temporary subsidy for household employees affected by COVID-19 with an amount equalling 70% of their contribution base
- Transfers to autonomous communities to fund meals for children affected by the school closures
- Extension of the social benefit for energy provision
- Financial assistance to the education system and other industry and sectoral support measures
- Exemptions of social contributions for impacted companies that maintain employment
- Exemption of social contributions for the self-employed who receive the extraordinary benefits
- Reduction of the VAT rate for surgical disposable masks
- A temporary zero VAT rate on purchases of medical material essential for combatting COVID-19, for COVID-19 tests and vaccines
- Deferral of social security debts for companies and the self-employed
- Moratoria on social security contributions for the self-employed and companies in selected industries
- Tax incentives for some landlords who reduce the rents of properties used for activities related to the hotel, restaurant and tourism industries

	• Tax payment deferrals for small and medium enterprises and the self-employed, with the first 3 or 4 months being exempt from interest • Extension of the deadlines for filing tax returns and self-assessment for SMEs and the self-employed • Flexibility for SMEs and the self-employed in calculating their income tax and VAT instalment payment based on actual earnings in 2020 • Temporary increases in the reduction of taxation by the module system in income tax and VAT • Reduction of the contribution for employed agricultural workers who completed a maximum of 55 real days of contribution in 2019 • Reduction of VAT on digital publications from 21% to 4% • No surcharge for the late payment of tax liabilities for companies obtaining financing through the Instituto de Crédito Oficial Guarantee Lines • More flexibility for workers to access savings from their pension plans • Budget flexibility to enable transfers between budget lines and for local governments to use the budget surplus from previous years to support measures in the area of housing • Modification of spending ceilings for certain lines of ministries and subnational governments • Centralization of medical supplies • An emergency management process for procuring all the goods and services needed by the public sector to implement any measure to address COVID-19

Source: Author's compilation based on Eurostat (2021) data.

All economies reviewed herein have in 2020 and 2021 channelled public funds towards supporting the healthcare system. This mainly occurs through increased funding for virus testing and medical funding (e.g. Greece, Italy, Germany but also China, the USA – see Table 4 and Table 5), therapeutics, diagnostics, support for disease control and prevention. Almost all the fiscal measures reviewed provide for healthcare-related infrastructure (hospitals, testing units, isolation units). Some of the rich countries make provision for international support and WHO guidance (USA, Japan). The USA, Germany and Russia have explicitly allocated funds for vaccine development and COVID-19-related research. Portugal, Spain, India and Russia make explicit reference to funds for increased compensation and supporting healthcare workers.

Beyond the healthcare sector, all countries have chosen to support employment and business operations through unemployment benefits, incentives to retain workers, the provision of low-cost inputs and reduced work-time schemes. Countries have also chosen to support sectors most in stress or sectors traditionally essential to the economic activity like the tourism, agriculture or exporting sectors. Provisions have also been made with regard to securing housing and food supplies. Only Russia, Portugal and Germany have made explicit reference to funds for child protection and parental support. The USA has made explicit reference to education support through student loan support and the suspension of education fees. Germany and France are the only countries in the sample studied and in the group of the rich countries that make explicit reference to supporting green investments and innovation. Spain is the only country in Southern Europe to have explicitly provided for vehicle renewal under the MOVE II programme and investment in digitization and innovation in the tourism sector.

Table 5: Fiscal response to COVID-19 in the five richest economies in the world

The USA	• Unemployment benefits • Student loan payment relief • Deferring collections of employee social security payroll taxes • Options for avoiding evictions and foreclosures • Small Business Administration loans and guarantees to retain workers • Support for hospitals and virus testing • One-time tax rebates to individuals • Provision of food and a safety net for the most vulnerable • Prevention of bankruptcy • Hospital support • International assistance • Virus testing • Medicaid funding • Vaccine development, diagnostics, support for disease control and prevention • Support for paid sick or emergency leave
China	• Increased spending on epidemic prevention and control • Production of medical equipment • Unemployment insurance and extension • Tax relief • Waived social security contributions • Additional public investment
India	• Deferred public revenues • Expedited spending for primarily social protection and healthcare • Business credit provisioning • In-kind (food, cooking gas) and cash transfers to lower-income households • Wage support and employment provision to low-wage workers • Insurance coverage for workers in the healthcare sector and provision of healthcare infrastructure

	• Additional public investment • Fertilizer subsidy allocation and infrastructure support in the agriculture sector • Support for urban housing construction • Ease of the tax compliance burden across a range of sectors • Credit support to businesses, poor households, migrants and farmers • Credit support for distressed electricity distribution companies
Japan	• Preventive measures against the spread of infection • Strengthening of treatment capacity • Protection of employment and businesses • Enhancement of future response capacity • Handouts to affected individuals and firms • Deferral of tax payments and social security contributions • Concessional loans from public and private financial institutions • Expansion of the work subsidies • International aid: contribution to the IMF's Catastrophe Containment and Relief Trust, Poverty Reduction and Growth Trust and the COVID-19 Crisis Development Initiative
Russian Federation	• Increased compensation for frontline medical staff as well as health and safety inspectors • Sick leave benefits and sick leave pay • Lump-sum benefit transfers to children aged 1–16 • Lump-sum benefit transfers to families with children in case of employment occupation loss • Interest rate subsidies for SMEs and systemically important enterprises • Tax deferrals for the most affected companies regarding most taxes • Deferrals of social contributions for SMEs • A permanent reduction of SMEs' social contributions on wages in excess of the minimum wage • Social contributions and CIT permanently reduced for IT firms • A tax holiday on all taxes (excluding VAT) and social contributions for Q2 for SMEs, sole proprietors, and NGOs providing social services

	• A tax refund (whole or partial) for registered self-employed for 2019 and 2020 • Eligibility age to register as self-employed lowered from 18 to 16 • Sole proprietors receive a partial refund on their social contributions • Deferrals of rent payments for all levels of government until the end of the year • Zero rent to the federal government for 3 months for SMEs in affected sectors • Budget grants for SMEs in affected industries to cover salaries at the rate of one minimum salary per employee for 2 months plus subsidized and forgivable loans for all enterprises in affected industries to pay minimum wages for 6 months • Zero import duties for pharmaceuticals and medical supplies and equipment • Guaranteed loans to SMEs and affected industries • Subsidies to airlines, airports, automakers, and others • Expanded eligibility for subsidized mortgage lending
Brazil	• Lifting of the government's obligation to comply with the primary balance target in 2020 and of the constitutional expenditure ceiling • Temporary income support for vulnerable households • Cash transfers to informal and low-income workers • Advance payments of salary bonuses to low-income workers • Partial compensation for suspended or reduced employment • Temporary tax breaks • Lower taxes and import levies on essential medical supplies • Federal transfers to state governments to support higher health spending • Financial assistance for municipalities – temporary stay of debt payments • Expansion of the credit lines of public banks for businesses and households • Government back up for SMEs and micro-businesses to cover payroll costs, working capital and investment

Source: Author's compilation based on Eurostat (2021) data.

The measures reviewed make use of the funds available for a direct response to the pandemic. Nevertheless, they make limited provisions for capital mobilization and the directions of socio-economic and healthcare system innovation, digitalization and innovation of the fiscal, tax and public management systems, infrastructure and green investment support, cross-border support for well-being and poverty alleviation for different socio-economic groups and regions. Most countries have chosen to support the existing patterns of production and consumption and provide little evidence of having perceived the socio-economic shock caused by the COVID-19 pandemic as the provider of an incentive for the transformation to sustainability, and an increase in its speed and direction (Tsani et al., 2021a).

Rich countries and debt-ridden countries in Southern Europe should mobilize the COVID-19-related funds and actions in a way that also supports a faster transition to sustainability. The rich countries examined herein, except for Germany and France, make no provision for innovation support or structural shifts in production and consumption. The same applies to the Southern European countries: Greece, Italy, Spain (exception for digitalization support to the tourism sector), Cyprus and Portugal. This could be supported through funds provided for technological upgrade of the producing sectors so as to help them cope with the COVID-19 emergency (e.g. remote working, improved IT access and capacity, digitalization of work and public services, improved rural IT infrastructure so as to support the move away from urban centres and easing the burden on urban environments), support of green investments aimed at speeding up the greening of the economies and of the production and employment generation in the emerging sectors. In addition, infrastructure investments as a response to the pandemic's economic effects could bring several positive outcomes. These are related to employment and capital income generation, but also to the long-term productivity impact of the availability and upgrade of infrastructure.

Most countries have opted for tax reliefs and income support for the affected labour force. A valid approach would be to support the most impacted and vulnerable groups' income through transfers coupled with education and training in new technologies and skills rather than just through income and unemployment support without any skills upgrade. It is not yet clear how the next day after the pandemic will appear for the global markets, for labour and production. Nor it is well understood for how long the pandemic's impact will endure on the existing production and consumption structure and if this 'traditional' structure will continue to exist once the pandemic has ended (Tsani et al., 2021a). Thus, training and education of the most vulnerable (non-skilled, low-income labour) and the increase in capacity to make rapid adjustments to uncertain requirements emerges as a low-risk alternative for the future.

Most countries have opted for tax reliefs and income support for the affected labour force.

4 Concluding remarks and recommendations for policymaking

The COVID-19 pandemic is occurring at a time when countries have regionally (e.g., the EU's Green Deal) and globally (the United Nations' Agenda to 2030 and the 17 Sustainable Development Goals – SDGs) committed themselves to sustainable and green development. Implementation of the SDGs envisages a brighter future in social, economic and environmental terms. At the same time, future developments may bring environmental degradation, biodiversity loss and climate change to a point of no return if no timely and adequate actions are implemented on the global scale. Acknowledgment of these trends indicates that the net effect and future outcome will depend on the speed and robustness of the transition to sustainability. If this transition does not take place in a fast and robust manner, humanity and economies face the prospect of a grim future. COVID-19 creates a prime opportunity for a globally/EU/regional coordinated response, capital mobilization and fiscal action that can have a significant impact on the speed of the transition to sustainability. This transition concerns not only the healthcare system that has been put under considerable stress, but also other economic sectors and societies.

The analysis in the previous section shows that the mobilization of public funds to address the COVID-19 pandemic can be used either to maintain the current fiscal and tax systems, the existing state of technology and digital tools' use in the public sphere, as well as of the existing consumption and production patterns, or to provide incentives to change the present consumption and production patterns towards more sustainable models, through the financing of innovation, digitalization (including that of the fiscal and tax systems), green investments, education and a technological upgrade.

To this end, policy recommendations include a more careful consideration of the structural shifts in the existing production and consumption patterns in response to the COVID-19 pandemic that may hold far-reaching implications for the transition to sustainability. Policymakers should consider the importance of digitalization, IT and green infrastructure in speeding up the digitalization and innovation of the fiscal and tax systems, the greening of the economies and of the generation of production and employment in the emerging sectors. Infrastructure investments may pay off in terms of employment and the long-term productivity of the inputs to production. Finally, fiscal measures should look beyond the direct financial support to the most vulnerable and actively seek a combination of a financial, training and education support package able to ensure the resilience of the most vulnerable amid the current conditions and readiness for future uncertainties and skills requirements.

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Chapter 9

Tax and Fiscal Policy Measures in the Digital Transformation Era during the COVID-19 Pandemic: Experiences from Ethiopia and Croatia

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1 Introduction

In 2019, the first case of coronavirus disease 2019 (COVID-19) was discovered in Wuhan, China. Since then, the disease has spread globally, resulting in a pandemic. The economic and social disruption caused by the pandemic is devastating. According to the WHO (World Health Organization) (2020), the pandemic has led to the dramatic loss of human lives worldwide and poses an unprecedented challenge to public health, food systems, and the workplace.

Since December 2019, the COVID-19 outbreak has been spreading quickly around the world, holds serious public health and economic consequences. On 11 March 2020, the WHO declared a global pandemic. Although countries are better prepared for a pandemic than in the past, the world is also much more interconnected, making the contagion especially dangerous. However, the true prevalence of COVID-19 infection in most countries is unknown, creating unparalleled challenges to global containment and mitigation. These issues reveal the importance of strengthening the global response to COVID-19 across all countries in order to reduce the disease's global risk and impact (WB, 2020).

The confinement and other social-distancing measures implemented to slow the spread of COVID-19 have brought the global economy to a halt. Even though their lockdowns were not as stringent, developing countries' economies have been hit just as hard as developed countries'. According to the WB (2020), the pandemic has caused a sudden and sharp recession of the global economy, beginning this year. It is feared that while a good policy response could limit its duration, its consequences will be felt for a long time. The current health response to the pandemic is impacting the drivers of economic growth, most likely leading to economic shutdowns across sectors. This means governments must consider the second phase of fiscal policy interventions aimed at restarting a globalized economy once the health problem has been resolved, which is difficult.

As a result, the policy response to COVID-19 has attracted swift responses from governments. Given the nature of the shock, which is an unprecedented public health emergency, fiscal policy has played a critical role. With the pandemic spreading around the world, governments have increased their fiscal policy actions and implemented stringent containment measures.

Economies all over the world have announced fiscal packages, revenue and expenditure measures and liquidity support. Low-income countries' policymakers have also implemented a variety of fiscal measures to provide income support to the households and sectors most affected by the COVID-19 pandemic. In light of the foregoing, this research paper examines the variety of tax and fiscal policy measures implemented in response to the COVID-19 crises in Ethiopia and Croatia. The study also includes recommendations for how different levels of government should respond to the COVID-19 crisis.

Government revenues are expected to fall faster than gross domestic product (GDP) as a result of the COVID-19 pandemic and resulting economic slowdown. Because the fiscal multiplier has historically exceeded one during economic downturns, the impact on revenues almost certainly outweighs the impact on economic growth. As the world works to manage the COVID-19 crisis and the potential economic slowdown, several governments have announced preliminary measures, ranging from automatic debt rollovers for small businesses to extending unemployment insurance equivalent to nearly 100% of wages for all laid-off workers. These actions are generally intended to assist businesses and individuals with cash flow so that liquidity shortfalls do not lead to solvency crises (WB, 2020).

To meet the challenges brought by COVID-19 to the economy and society, concerted efforts are required. The necessary measures to combat the spread of the COVID-19 crisis on the economy must be evaluated. Since the government is the key player in times of crisis, the measure of intervention through tax and fiscal interventions is a hotly debated topic. As a result, the goal of this study is to examine the COVID-19 situation as well as the current state of the tax and fiscal measures in Ethiopia and Croatia. Further, the study identifies and evaluates the key tax and fiscal policy challenges and opportunities that Ethiopia and Croatia face in the digital transformation era of the COVID-19 pandemic. The study's goal is to provide an understanding of the state of the tax and fiscal policy in Ethiopia and Croatia during the COVID-19 crisis, as well as the implications this holds for society. Moreover, the study presents information on the effectiveness of selected tax and fiscal policy measures based on an international comparison. This study can also assist policymakers in Ethiopia and Croatia by providing tailored fiscal policy guidelines and instruments that are usable in practice.

2 Data and Methods

This study makes use of data from Ethiopia and Croatia referring to the start of the COVID-19 outbreak. The data set spans the months of February 2020 to October 2021. Indexes and variables related to the COVID-19 trend as well as the two countries' tax and fiscal policies are included. The variables used in this study include the total number of COVID-19 cases, total deaths, total vaccinations, health sector spending (or foregone revenue) in billion US dollars, and spending as a percentage of GDP.

Data were gathered from the Our World in Data set (Ritchie, 2020) and the International Monetary Fund (IMF, 2021b) database. The study employs a comparative and descriptive method to analyse the trend in COVID-19 cases and identify the key challenges and opportunities in relation to the Ethiopian and Croatian tax and fiscal policy measures. A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was also used to examine the opportunities, advantages, disadvantages and risks in Ethiopia and Croatia related to tax and fiscal policy during the COVID-19 pandemic.

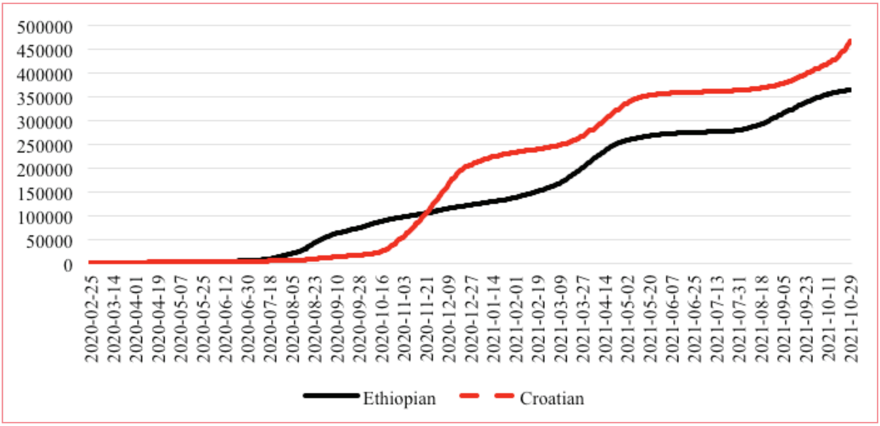
3 COVID-19 pandemic trends in Ethiopia and Croatia: a comparative analysis

The COVID-19 pandemic emerged in Wuhan, China on 9 December 2019 and by 21 November 2021 had spread to 222 countries and territories, causing 257,550,267 infections and 5,165,924 deaths (Worldometer, 2021). Along with the enormous human misery and loss of life, this pandemic is responsible for a worldwide economic depression. The world's dominant economies (the United States, European countries, China) have been among the hardest hit by the outbreak.

The first confirmed case in Ethiopia was reported on 13 March 2020. The authorities declared a 5-month State of Emergency from April to September, 2020, closing land borders, prohibiting inter-regional public transportation and public gatherings, closing schools, ordering the closure of nightclubs and entertainment establishments, and announcing social-distancing measures. Because of the pandemic, the Ethiopian national election was moved from 29 August 2020 to 21 June 2021. COVID-19 has had a significant impact on the Croatian economy. The containment efforts began early and were gradually tightened, beginning with border controls and progressing to the closure of schools, universities, open markets, and restrictions on intercity travel (IMF, 2021). The stringent measures applied in Ethiopia and Croatia are not equivalent. The above-mentioned range of very strict measures employed in Ethiopia has a more effective role in controlling the COVID-19 crisis than in Croatia.

Figure 1 shows the total number of COVID-19 cases in Croatia was lower than Ethiopia until 23 November 2020. However, afterwards the cases in Croatia have risen above those in Ethiopia. This might be because, as Figure 8 presents, the stringency measures have been relaxed and been below 50% in Croatia since November 2020.

Figure 1: Total COVID-19 cases in Ethiopia and Croatia



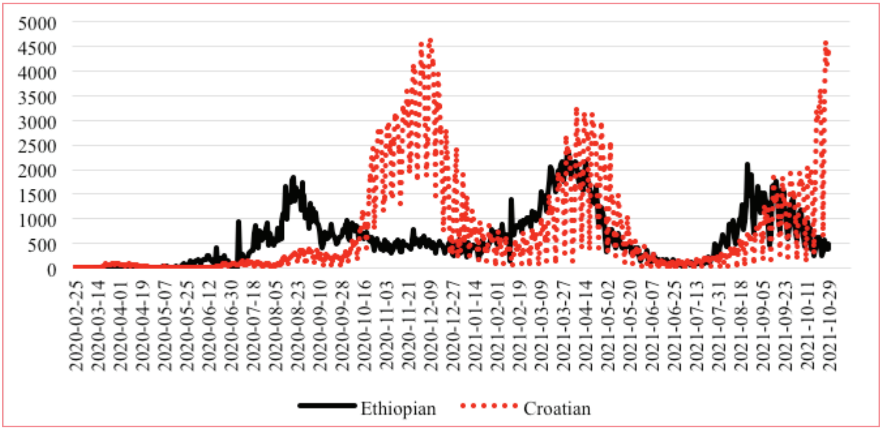
Own computation based on the 'Our World in Data' set.

With new cases falling steadily from their peak in August 2020, as shown in Figure 2, Ethiopian authorities relaxed several restrictions. Yet, since late January 2021, an increase in infections has led to new daily cases exceeding the previous peak in August 2020. In Ethiopia, the pandemic has seen peaks in daily cases of 1,829 in August 2020, 2,372 in April 2021 and 2,095 in August 2021. New daily cases of COVID-19 in Croatia reached peaks of 4,620 in October 2020, 3,099 in April 2021 and 4,571 in October 2021.

New daily cases of COVID-19 hit another peak of 4,547 on 30 October 2021 in Croatia (see Figure 2).

In comparison, in the same period, new daily cases in Ethiopia were only 384. Figure 3 also shows that COVID-19 spreading faster in Croatia than in Ethiopia as measured by new cases per million. The recent increasing trend of COVID-19 in Croatia indicates that more stringent measure should again be put in place.

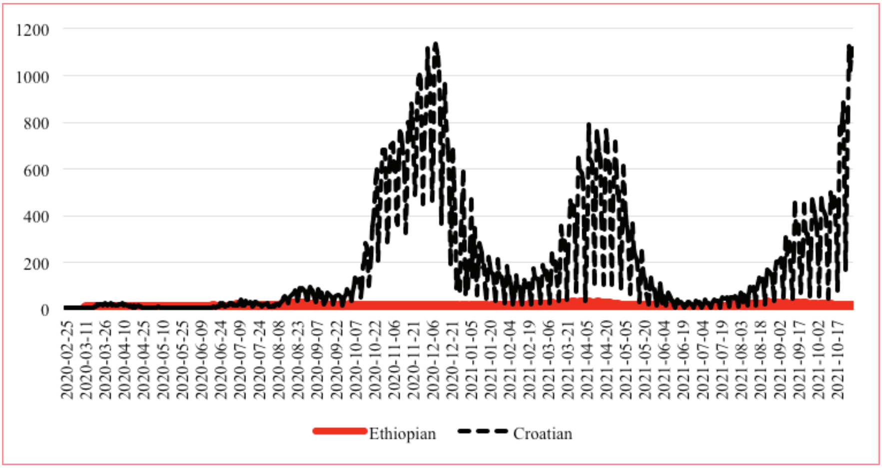
Figure 2: New daily COVID-19 cases in Ethiopia and Croatia



Own computation based on the 'Our World in Data' set.

In Ethiopia, there has been a steady decline in COVID-19-related restrictions since the end of the state of emergency in September 2020. However, as Figure 2 reveals, there was a rise in cases in August 2021, with the authorities announcing the strict enforcement of an October 2020 directive requiring that face masks be worn in public places and a prohibition on gatherings of more than 50 people. Ethiopia continues to require a negative COVID test for anyone entering the country from another country. Further, schools continue to operate on a rotational basis, with students assigned to shifts to reduce the size of in-person classes. In July, Ethiopian Airlines resumed services to roughly half of the previously suspended destinations (IMF, 2021).

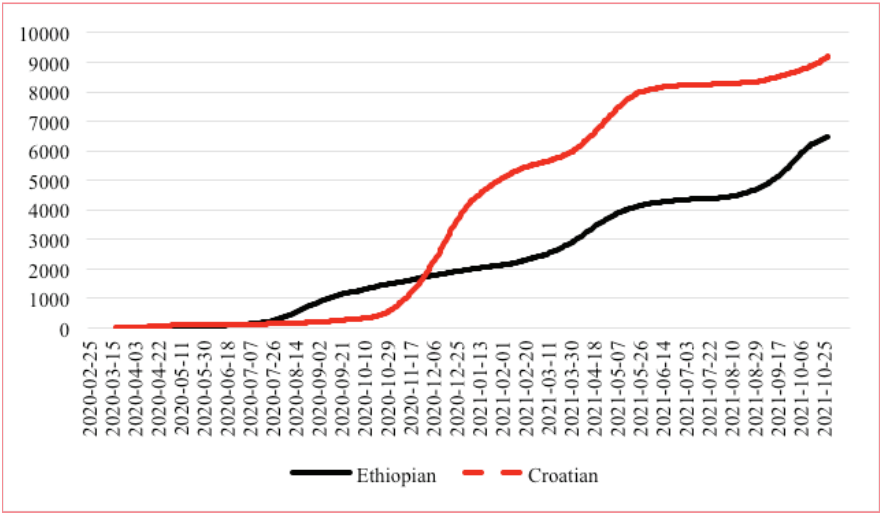
Figure 3: New daily COVID-19 cases per million in Ethiopia and Croatia



Own computation based on the 'Our World in Data' set.

Following the slowdown in COVID-19 cases, as may also be noticed in Figures 2–3, in April 2021 the Croatian government announced a three-stage gradual easing of the containment measures, subject to a review after each stage. Some retailers, libraries, museums, galleries and service-based activities reopened. Public transport in cities and suburbs was restored. Except for special cases decided by epidemiologists, public and private health systems became fully operational. Playgrounds and athletic fields were reopened. Outdoor public gatherings of up to ten people were permitted. Shopping malls, preschools and elementary schools for grades 1 through 4, cafes and restaurants, sports and fitness centres, and national parks were all reopened. Inter-county bus services and domestic air traffic resumed. Public gatherings for cultural and sporting events were permitted. All European Union/European Economic Area (EU/EEA) nationals and individuals with permanent residence in EU/EEA countries were able to enter Croatia freely and without restrictions after 1 July 2020. All other foreign nationals could enter Croatia for business, tourism or other pressing personal reasons if they provided relevant proof. Individuals entering Croatia are no longer required to self-isolate or be quarantined (IMF, 2021). Following a rise in infections, several restrictions were reinstated as of 10 July 2020. Wearing face masks is now required across the country on public transport, in medical facilities, shops, and malls, by employees and clients where face-to-face contact is required, for services that require close contact, drivers and all other employees in public transport vehicles, as well as passengers, employees of all hospitality services who serve and prepare beverages and food, all healthcare workers and visitors to hospitals. Following a recent surge in new COVID-19 cases, wearing a face mask is now required in all closed indoor settings where a minimum 2-metre distance cannot be maintained from 19 October 2020 on. Outdoors, face masks are also advised if a 2-metre distance cannot be maintained. Gatherings of people must be approved in advance. On 28 November 2020, a soft lockdown was implemented, which was then extended to 10 January 2021 with several restrictions, including social distancing, the closure of all hospitality services, the closure of gyms, sports and recreation facilities, nightclubs, and the prohibition of cultural events, amateur sporting or tourist events and gatherings. Hotels and camps may remain open, but only for the benefit of their guests. With a few exceptions, the Croatian government has prohibited all border crossings since 1 December 2020 (IMF, 2021).

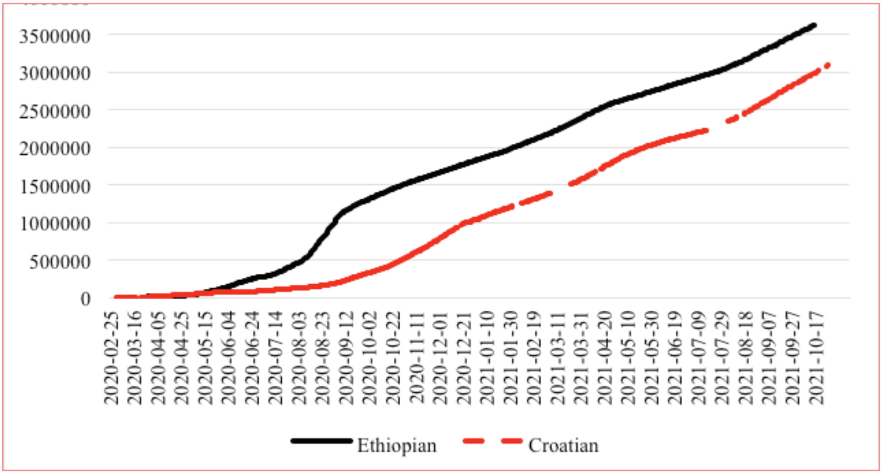
Figure 4: COVID-19 deaths in Ethiopia and Croatia



Own computation based on the 'Our World in Data' set.

As shown in Figure 4, the total death rate in Croatia has been steadily increasing since October 2020. The total number of deaths in Ethiopia has also been increasing since July 2020. Despite the restrictive measures, deaths in Croatia have been rising faster than in Ethiopia since December 2020. In Ethiopia and Croatia, since the start of vaccination in January 2021, the death rates are slowing down than the previous rates.

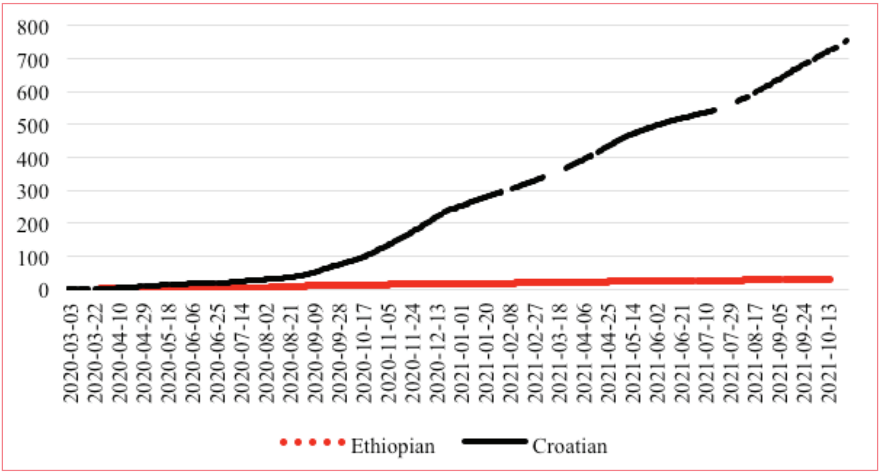
Figure 5: Tests of COVID-19 in Ethiopia and Croatia



Own computation based on the ‘Our World in Data’ set.

COVID-19 tests are steadily increasing in both Ethiopia and Croatia, as shown in Figure 5. Yet, as presented in Figure 6, the tests per thousand are increasing rapidly in Croatia. The high-test rates in Croatia are very helpful for determining the trend in COVID-19 cases. They also help policymakers pass legislation on economies and easing the measures. All visitors to Croatia for tourism, education, business, urgent personal reasons must present a negative Polymerase Chain Reaction (PCR) test that is less than 48 hours old. Those not providing a negative PCR test should isolate themselves for 14 days. Ethiopia also continues to require anyone entering Ethiopia from another country have a negative COVID test 120 hours before entering the country and to complete a mandatory 7-day quarantine at designated hotels at the expense of the traveller.

Figure 6: Tests of COVID-19 per thousand in Ethiopia and Croatia

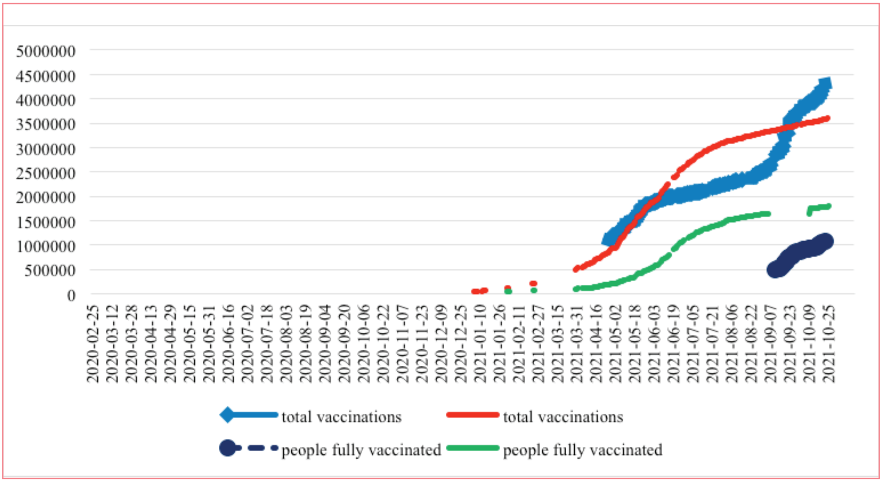


Own computation based on the 'Our World in Data' set.

Ethiopia received 2.2 million vaccine doses in March 2021, with the goal of vaccinating 20% of the population by the end of 2021. More than 2 million people had received their first dose of vaccine by the end of June. Vaccination against COVID-19 began in Croatia on 27 December 2020 (IMF, 2021). Croatia is taking part in the EU-wide vaccine procurement. Croatia had ordered 5.6 million doses of vaccine on 19 January. The current amounts ordered are expected to ensure the vaccination of 2.8 million people, or more than 65% of the total population. The vaccination plan is divided into three phases: the first phase, which began on 27 December, is intended for health workers and nursing home residents; the second phase is designed for people with chronic diseases; and the third phase is aimed for the entire population. By April 2021, the government had hoped to have vaccinated the majority of the at-risk population, or approximately 1 million people. Following the earthquake in the country, priority vaccinations were also administered to people living in temporary collective housing and emergency services in affected areas. More than 38,000 people had received the vaccine by 14 January (OECD, 2021).

According to Figure 7, the number of full vaccination rates in Ethiopia is lower than in Croatia. This shows that, even though the total number of vaccinated people in Ethiopia was higher December 2021, Ethiopia's full-scale vaccination capacity is significantly lower than that of Croatia. The trend of vaccination shows rising tendency in Ethiopia since September 2021 over Croatia.

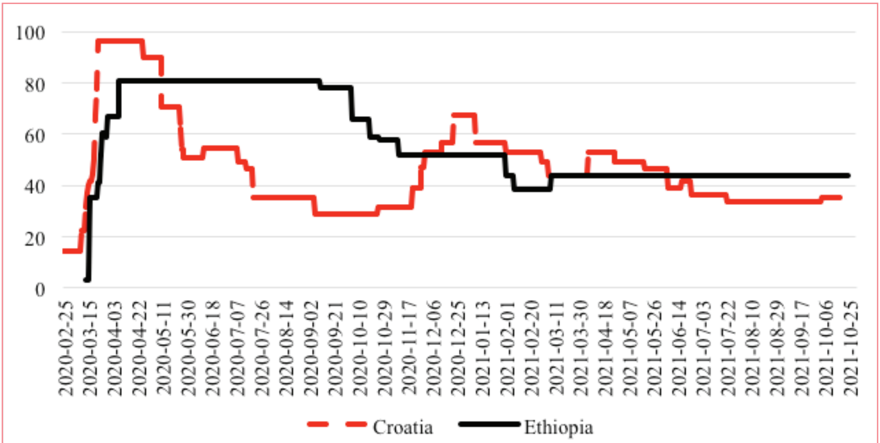
Figure 7: Number of vaccinations and people vaccinated against COVID-19 in Ethiopia and Croatia



Own computation based on the 'Our World in Data' set.

Figure 8 presents the stringency index in Ethiopia and Croatia. The stringency index is a composite measure based on nine response indicators, such as school closures, workplace closures, and travel bans, and involves a scale from 0 to 100. In the first months of 2020, Ethiopia and Croatia both implemented strict COVID-19 measures. Croatia's steps as measured by the stringency index reached 96.3% in April 2020. Beginning in March 2021, both countries' measures were relaxed.

Figure 8: Stringency index during the COVID-19 pandemic in Ethiopia and Croatia



Own computation based on the 'Our World in Data' set.

4 Current state of the tax and fiscal measures in Ethiopia and Croatia during the COVID-19 crisis

Fiscal policy entails the use of government revenue collection and expenditure to influence the economy of a country. The use of government revenues and expenditures to influence macroeconomic variables arose during the Great Depression, when the previous laissez-faire economic management approach became unpopular. Fiscal policy is based on the theories of the British economist John Maynard Keynes, whose Keynesian economics postulate that changes in government taxation and spending affect aggregate demand and the level of economic activity. It is an essential instrument for maintaining and improving living standards. Such living standards can be viewed as the result of the interaction of the opportunities provided by society and each person's willingness and ability to take advantage of them. In certain conditions, public finance can make a significant contribution to the creation of opportunities within a society by raising resources from the private sector through taxation or borrowing and allocating those resources effectively and equitably in the form of public spending, including public goods and transfers.

In comparison to other unpredictable and unstable sources of finance, fiscal revenues are critical for mobilizing domestic resources. Through redistributive tax designs and transfer programmes to the poorer sections of society, tax revenues and policies are also an important mechanism for mitigating income inequalities and promoting inclusive growth and development. Tax revenue also serves as the primary funding source for essential public services.

COVID-19 has called for a fiscal response to support the health system, businesses and households in Ethiopia and Croatia. More than half of these measures involved additional spending or revenue foregone in the non-health sector. Figure 9 shows how the magnitude and composition of tax and fiscal categories differ by country. Non-health sector spending is higher in Ethiopia and Croatia than other spending, as seen in Figure 9. Ethiopia spends more money on healthcare as a result of COVID 19 than Croatia. Liquidity assistance is provided on a consistent/fixed basis in Ethiopia; however, liquidity assistance varies over time in Croatia. Croatia's fiscal response is greater than Ethiopia's response. One reason for that is Croatia was hit by the crisis earlier than expected. Croatia's government offers substantial assistance and a stimulus package. In Ethiopia, on the other hand, the fiscal response began late in April 2020 and is smaller due to the tight financial constraints.

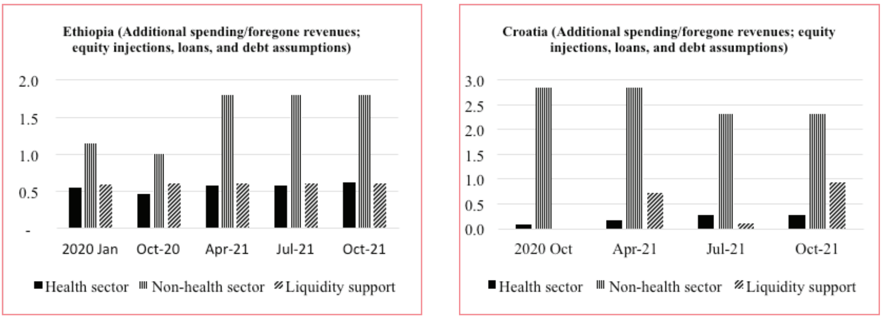
The Ethiopian government implemented a key fiscal policy response at the start of the new fiscal year. In early March 2020, Ethiopia announced a USD 9.3 million package to boost healthcare spending. On 23 March 2020, the Ethiopian Prime Minister Office announced the aid package would be increased to USD 154 million, or 0.15% of GDP, but no specific details of the assistance were provided. The Ethiopian Prime Minister's Office further announced a COVID-19 Multi-Sectoral Preparedness and Response Plan on 3 April 2020, with a prospective costing of interventions of USD 1.64 billion (1.6% of GDP). The funds were distributed as follows: (i) USD 635 million (0.6% of GDP) for emergency food distribution to 15 million people who are vulnerable to food insecurity and are not currently covered by the rural and urban productive safety net programmes; (ii) USD 430 million (0.4% of GDP) for the health sector's response under a worst-case scenario of community spread with over 100,000 COVID-19 cases of infection in the country, primarily in urban areas; and (iii) USD 282 million (0.3% of GDP) for the provision of emergency shelter and non-food items; (iv) the remainder (USD 293 million, or 0.3% of GDP) was to be allocated to agricultural sector support, nutrition, vulnerable group protection, additional education expenditures, logistics, refugee support, and site management

The Ethiopian government implemented a key fiscal policy response at the start of the new fiscal year.

support. Implementation of this measure, which began in late 2019/2020, has continued in the current financial year. The authorities estimate that COVID-19-related spending would amount to USD 1.6 billion in the 2019/2020 financial year (IMF, 2021).

Ethiopia's fiscal interventions also include greater funding for health facilities, trade tax cuts for COVID-19-related medical imports, and faster value-added tax (VAT) refunds to businesses. The Ethiopian Council of Ministers approved a new set of economic measures to support firms and employment on 30 April 2020. These include forgiving all tax debts dating back to 2014/2015, a tax amnesty on interest and penalties for tax debt dated 2015/2016–2018/2019, and a 4-month exemption from personal income tax withholding for businesses that continue to pay employee salaries despite being unable to operate due to COVID-19 (UN, 2020).

Figure 9: Fiscal response to COVID-19 since 2020 (USD billion) in Ethiopia and Croatia

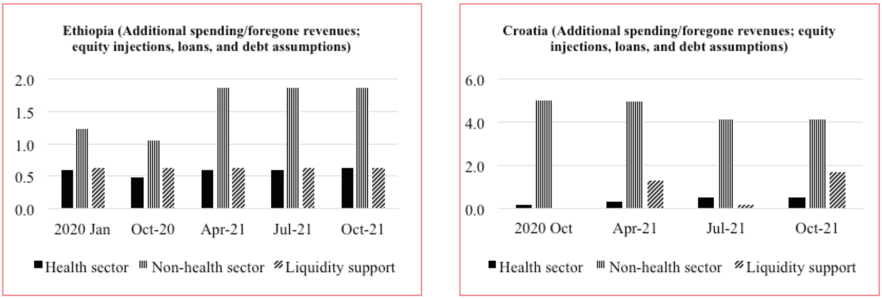


Own computation based on IMF (2021b) data.

Own computation based on IMF (2021b) data.

On 25 June 2020, the Ethiopian Prime Minister's Office issued a statement outlining measures to support foreign direct investment in the country during the crisis and recovery, including: (i) operational facilitation of logistics in the export and import process; (ii) removal of taxes on the import of raw materials for the production of COVID-19-essential goods. The authorities intend to allocate approximately USD 0.8 billion for COVID-19-related spending in the 2020/2021 financial year, including the purchase of medical equipment, increased pay for health workers, food assistance for quarantine and isolation areas, and the purchase of hygiene facilities, disinfectant, and personal protection equipment. Ethiopian authorities have received IMF assistance in the form of a Rapid Financing Instrument at full quota (IMF, 2021).

Figure 10: Fiscal measures in response to COVID-19 since January 2020 (% of GDP) in Ethiopia and Croatia



Own computation based on IMF (2021b) data.

As shown by Figure 10, Croatia has allocated bigger spending share to non-health sector than Ethiopia. Ethiopia receives consistent liquidity assistance. In response to the deep recession caused by the lockdown measures, Croatia has been able to mobilize significant funds to support and stimulate its domestic economies. Ethiopia, on the other hand (see Figure 10), has much more limited resources for financial assistance and stimulus packages. Given Ethiopia's limited fiscal space, the fiscal packages are limited in terms of units compared to Ethiopia's needs and the magnitudes mobilized by Croatia. This means that Ethiopia has been unable to respond adequately to the COVID-19 crisis without increased international assistance.

The Croatian government announced measures on 1 April 2020, including: an increase in the subsidization of the net minimum wage; tax obligations for businesses to be reduced or written off based on turnover and loss; VAT payments had not been due until payment is received from customers; and the deadline for the 2019 financial reports would extend to 30 June. On 25 June 2020, the government announced the possibility of introducing a short-term work programme, financed by the EU's SURE, to protect jobs. Employers who need to introduce shorter working hours due to a decline in business activities are eligible for assistance in paying a portion of their workers' wages. The measure is intended for all industries and businesses with more than ten employees. The government co-finance a shorter working week for all sectors, with a maximum 265.32 EUR per worker plus contributions. The deadline for state-owned enterprises to pay profit into the budget was extended. The government has been covering the costs of entrepreneurs whose work has been halted due to a decision by the Civil Protection Headquarters.

Furthermore, other key policy responses in Croatia as of 2 April 2021 include: interest-free deferment of public obligations for 3 months, which may be extended by another 3 months if necessary;

temporary suspension of payments of selected parafiscal charges; interest-free loans to local governments, the Croatian Health Insurance Institute, and the Croatian Pension Insurance Institute to cover the deferred payments; and subsidization of net minimum wages for 3 months to compensate for the deferred payments. Some EU Structural and Investment Fund beneficiaries been able to receive larger advance payments. A portion of the EU funds envelope has been reallocated to microloans, and a new credit line has been established, along with measures to facilitate the faster disbursement of loans with lower interest rates and larger partial risk guarantees. The government has also purchased unsold stocks of finished goods in agriculture, the food processing industry, medical equipment, and other strategic goods (IMF, 2021).

5 Challenges and opportunities for fiscal policy and related measures in the digital transformation era of the COVID-19 pandemic in Ethiopia and Croatia

5.1 Challenges and opportunities for tax and fiscal policy

The challenges and opportunities created by the COVID-19 pandemic in Ethiopia and Croatia are discussed in a SWOT analysis (Table 1). The COVID-19 pandemic is expected to have a significant impact on Ethiopia's public finances. The COVID-19 pandemic has increased the fiscal deficit in Ethiopia. The fiscal impact is driven by revenue losses and increased spending. Without external assistance and at the same level of expenditure as in the no-COVID-19 scenario, government revenue falls by 2.5% in the 2019/2020, 3.3% in the 2020/2021 financial year, and 10.4% in the worst case. The fiscal deficit in the 2019/2020 financial year would be 0.6% higher than the baseline with the USD 3.4 billion response plan, which is primarily funded with external assistance. When we consider the borrowing to finance the COVID-19 plan, the public deficit as a share of GDP would be 2.5 percentage points higher than in the baseline. The fiscal deficit in the 2020/2021 financial year would be 1.3% higher in the mild case and 7.3% higher in the worst case compared to the baseline deficit. In the short term, the impact on government debt is negligible (Mitik, Ferede and Diriba, 2020).

Ethiopia's tax-to-GDP ratio in 2018/2019 was 10%. Ethiopia is vulnerable to the fiscal effects of the pandemic due to its reliance on import revenues and profit-making state-owned enterprises such as Ethiopian Airlines and the Ethiopian Telecommunication Corporation. For the 2019/2020 financial year, Ethiopia's fiscal deficit was 3% of GDP. Ethiopia has been classified as being at high risk of debt distress, with overall debt-to-GDP ratios approaching the 60% mark and its debt-servicing capacity, particularly from goods and services exports, remaining constrained (UN, 2020).

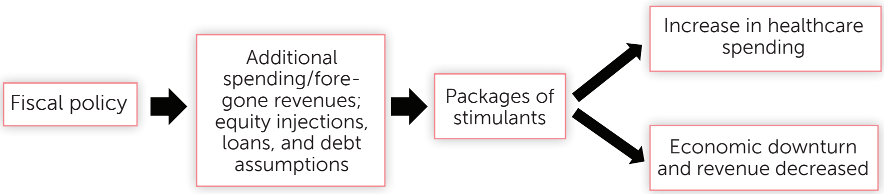
Table 1: SWOT analysis of the tax and fiscal policy in the COVID-19 pandemic in Ethiopia and Croatia

Opportunities	Threats (Challenges)
Ethiopia	
• Transformation of digital tax collection • Digitalizing the financial sector • Effectiveness of fiscal policy improved • Effective design and implementation of policies • Raising and mobilizing resources from the private sector • Rethink on the health sector, the emergency section of the health sector, and government revenue and spending reforms • Be on the lookout for similar types of disease in the future	• Significant impact on public finances by widening the deficit • Increase in spending and loss of revenue • Dependence on import revenue and state-owned enterprises' profits • Adopting to the post COVID-19 situation
Croatia	
• The revenue collection by government becoming digitalized • Increased effectiveness of fiscal policy • Increased revenue collection by the government from the private sector • Effective design and implementation of policies • Digitalizing the financial sector • Rethink on the health sector, the emergency section of the health sector, and government revenue and spending reforms • Be on the lookout for similar types of disease in the future	• Fiscal deficit widens • spread of COVID-19 and the earthquake and a subsequent rise in spending • Adjustment to the post COVID-19 situation
Strenghts	**Weaknesses**
Ethiopia	
• Households prone to food insecurity and micro-finance institutions benefited from liquidity support • Improvements in medical care and the healthcare system	• Lack of coordination of tax and fiscal policy with other policies, such as monetary policy • The COVID-19 response and recovery measures are solely operated by the Prime Minister's Office • Bigger population in Ethiopia than in Croatia • Lack of capital and manpower • Lack of communication and misinformation
Croatia	
• Income and liquidity support going to firms and households • Emergency services in the health sector are improving • Be on the lookout for similar types of disease in the future	• The income and liquidity support in the non-health sector is very much higher than the spending in the health sector • Lack of policy coordination's

Own computation based.

COVID-19 has a bifurcating fiscal impact in Ethiopia. First, there is pressure to spend more to deal with the pandemic's health and socioeconomic impacts – and this is already happening with an initial USD 154 million in additional spending authorized by Parliament. Second, revenue collection is likely to suffer as a result of the slower economic growth and the drop in trade taxes due to the lower exports and imports. This constrain the fiscal space, but it can be managed by relaxing the targets for the future financial years, as well as finding non-inflationary sources of financing, such as significant new external concessional or near-concessional financing, and debt reduction (UN, 2020). The potential transmission channel of the COVID-19 pandemic in Ethiopia and Croatia is as follows:

Figure 11: Transmission channels of tax and fiscal policy in Ethiopia and Croatia



Source: Own drawing.

As shown in Figure 11, tax and fiscal policy measures surge government spending while reducing revenue. The initial response to the COVID-19 outbreak involved tax and fiscal policy measures, and the role in the second phase is to quickly deliver financial support to firms, industries and households (see Figure 11). A stimulus package is implemented in the third phase. In

2019, the UN (2020) stimulus package in Ethiopia ranges from low to mid to high. In the final stage, the pressure is on the fiscal space as the possibility of rising pandemic expenditures – whether for prevention, testing, isolation, or care – collides with the limits of a small domestic tax base and domestic revenue contraction due to the broader economic contraction.

In Croatia, as a result of the economic slowdown and expansive fiscal measures aimed at mitigating the impact of the pandemic, the Croatian Ministry of Finance estimated the budget deficit at 8% of GDP in 2020, after a relatively balanced budget in the previous year. The Ministry had expected the budget deficit to fall to 2.9% of GDP in 2021, according to the same forecast published in autumn 2020. The national debt is expected to reach 87.3% of GDP in 2020, then fall by two percentage points in 2021. The effects of the destructive earthquake that occurred in December 2020, as well as the subsequent government spending to support the affected areas, must still be considered in any adjustments to the given projections.

In Croatia expansive fiscal measures aimed at mitigating the impact of the pandemic.

5.2 The COVID-19 pandemic in the digital transformation era

In a modern and dynamic market, complex social change has an impact on society. The rapid development of emerging technologies and increased digital connectivity, which have led to the creation of the digital economy, are the primary drivers of change today. The digital economy during the COVID-19 pandemic period in Ethiopia and Croatia also holds paramount importance. Further, the effectiveness of fiscal policy is largely determined by the information and technology available to a government, as well as how the government employs it.

The COVID-19 pandemic has focused attention on the world's rapidly growing shift to a digitalized economy. The social and economic restrictions imposed by governments around the world have forced many individuals and businesses to conduct their operations through online platforms. While other sectors of the economy have stalled, the digital sector has thrived. This holds far-reaching implications for business models in the future, making it even more critical that solutions for digital economy taxation that are equitable for source and market jurisdictions be found.

Despite more than two decades of information technology implementation, sub-Saharan African economies, (such as Ethiopia) are falling behind in the digital economy, which now accounts for 4.5% to 15.5% of global GDP (UNCTAD, 2019). Households with access to the Internet at home account for 22% of all African households. In comparison, global access to home Internet averages 57.8%, and global Internet use averages 51.2%, whereas only 30% of Africans use the Internet in general (Songwe, 2019).

The COVID-19 pandemic highlights the region's lack of digital readiness for households and businesses to deal with social distancing. This is because broadband penetration is low. With only one out of every three Africans using the Internet, for example, a significant number of children were unable to continue their education when strict social distancing was imposed, particularly among low-income households (Makwakwa, 2020). According to a Cisco Systems (2020) survey, despite being the most technically advanced country in the region, only 37% of businesses in South Africa were considered well prepared for remote working, having fully implemented their digital transformation strategies.

It is outlined that digitalizing the Croatian tax administration help to bring the country in line with other EU Member States that are transitioning to digital delivery. Hodžić (2019) examines the Croatian tax administration's strengths, weaknesses, opportunities and threats in order to assess the current implementation of electronic services and make recommendations for how to improve its services through digitalization. The findings revealed weaknesses, such as the underdeveloped information and communication technology in rural Croatia, slow development of e-government and business, and data security issues, as well as opportunities like lower hardware and software prices and the ability to attract foreign investment.

Hodžić (2019) adds that, as an EU member, Croatia implements regulatory policy for the benefit of its economies and society. Fiscal policy is important for shaping digital regulation in order to stimulate economic growth within the single market, reduce corporate tax burdens, and remove barriers that may discourage investment and growth. In contrast, the digital economy must contribute fairly to the development of public finances, including taking into account the single market's most serious taxation issues: tax avoidance and aggressive tax planning.

5.3 Tax- and fiscal-related measures to tackle the COVID-19 pandemic

The COVID-19 pandemic has brought unprecedented challenges in terms of global containment and mitigation. The section follows discusses how tax and fiscal policy can help in coping with the COVID-19 crisis. One of the general policy responses to the COVID-19 crisis is that fiscal measures must strike a balance between economic and social sectors: focusing solely on economic and financial impacts will cause long-term harm to human development and will cost future growth and development. Governments as a key player have taken decisive action to contain and mitigate the COVID-19 spread, as well as to limit the negative effects of COVID-19 on citizens and economies.

The specific measures in Croatia and Ethiopia are listed as follows. The main proposed objectives for policy in Ethiopia are:

VAT exemption on a list of essential food and non-food items for some period of time. Assuming that the average domestic indirect tax revenue over three quarters is EUR 408.45 million., with VAT accounting for 80% of the total, and that essential food and non-items account for 15% of the total, the fiscal impact would be approximately EUR 47.9 million. Fiscal policies must quickly shift to an expansionary stance, as they have already begun to do, to compensate for the sharp drop in aggregate demand, avoid a credit crunch, and prevent financial system damage. Pre-COVID-19 targets revisited. While COVID-19 is not a product of the business cycle, it is prudent to engage in countercyclical fiscal spending. Fiscal policies should be proportionate to the national demand gap, and should support businesses and employment in order to avoid an irreversible loss of productive and human capital, as well as to minimize the negative impacts on poverty and broader social well-being. A fiscal bridge funding needs to be justified, even if it comes at the expense of a significant rise in domestic public debt. Fiscal spending aimed at the productive and social sectors, as well as job retention, pay for itself in the medium term by preserving productive capacity and averting a deep recession. The Ethiopian government's other measure is to balance additional spending between public health and social-economic priorities, as well as across regions. In the latter case, given that such grants account for 60% of regional revenues beginning with the 2020/2021 financial year, federal grants could be used to challenge regions to match or exceed allocated resources through repurposing. Trend data show there is room to significantly increase spending on pro-poor sectors, which has remained relatively stable in recent years, albeit at a relatively high proportion of GDP. Taking measures to improve the health system's readiness and resilience is one aspect of protecting the health workforce, particularly frontline healthcare professionals who are both providing care for COVID-19 cases and prioritizing essential healthcare activities at health facilities. Another critical aspect is maintaining essential healthcare services in order to avoid a harmful rise in other communicable and non-communicable diseases, as well as an increase in morbidity and mortality. Also important are maintaining a flexible policy stance that allows for a more gradual path to fiscal targets is one of the recovery phase policy measures, along with considering tax cuts, continued cash transfers and subsidies, and increased spending in specific sectors or projects, depending on the context (UN, 2020).

The COVID-19-related measures taken in Croatia as of OECD (2020) include:

The Croatian government subsidies businesses, firms and households. Deferral and exemption of taxes and social security contributions, such as exemptions for entrepreneurs with an annual income of less than EUR 20.22 million whose revenue has dropped by more than 50%. The Croatian Small Business Agency has made loans to small businesses to help them with their working capital. Currently, approximately 900 businesses have benefited, totalling EUR 95 million. The Croatian Bank for Reconstruction and Development allows for debt moratoriums and loan extensions, as well as new liquidity loans, to ensure that businesses' basic expenses are met, and has adjusted its regulatory framework and monitoring activities to support financial institutions' liquidity. The government announced the possibility of instituting a short-term work programme to protect jobs, under which employers who need to reduce working hours due to a decline in business activity would be eligible for assistance in paying a portion of their employees' wages. Public obligations can be deferred and the terms are flexible. Obligations to banks were put on hold for 3 months. During this time, banks could not take any enforcement actions. The Croatian Banking Association agreed to postpone loan repayments to the tourism sector until the end of June 2021. In mid-June 2020, the Croatian Bank for Reconstruction and Development announced it would expand its export loan insurance programme and assume 95% of the risk of non-payment by foreign buyers, thereby protecting small and medium enterprise's liquidity.

Another set of measures to slow the spread of the COVID-19 pandemic in Croatia according to the OECD (2021) includes:

As a preventive measure, the country has been participating in the joint EU vaccine procurement. Several shipments of sanitary equipment have arrived in Croatia, bringing the government's investment in equipment to around 1.4 million EUR in 2021. Restrictions were imposed on religion, funeral and private gatherings, as well as weddings. Except for the most elite professional athletes, bars, restaurants, nightclubs, and fitness centres were closed. In cases where adequate physical distance cannot be assured, the wearing of facemasks is required in open spaces. The Ministry of Labour and Pensions has extended its employment subsidy programme until the end of February. Further, the Croatian government is enacting measures with an economic impact.

The pandemic is expected to have a significant financial impact.

6 Conclusion and policy recommendations

Since December 2019, the COVID-19 outbreak has been spreading rapidly around the world. The pandemic is expected to have a significant financial impact. The fiscal deficit is anticipated to increase as a percentage of GDP. The government's revenue was reduced. On the other hand, spending on emergency healthcare and food assistance rose, as the containment efforts, all of which contribute to the increase in the fiscal deficit. The necessary measures to combat the spread of the COVID-19 crisis on the economy must be evaluated. The aim of this study then has been to assess the trends in the COVID-19 and fiscal policy measures in Ethiopia and Croatia. The challenges and opportunities of the tax and fiscal policy measures were also examined. This study makes use of a data set covering the period February 2020 to October 2021. Data were gathered from both the Our World in Data set and the IMF database. A comparative and descriptive method and SWOT analysis were used for the analysis.

The governments of Ethiopia and Croatia has taken actions to tackle and mitigate the spread of the COVID-19 pandemic. In Ethiopia, immediate fiscal measures were taken after COVID-19, for instance, companies retaining income tax, forgiveness of taxes, reporting VAT and TOT in a one-year time rather than 3 months. However, in order to benefit the citizens (through income support and employment) and economies of Ethiopia and Croatia, strong and broad measures are required. Widely encompassing health and economic policy tools should be designed and implemented. Multilateral coordination is very important to cope with the COVID-19 crisis. Interventions on the European Union level, for instance the 'Joint European Roadmap towards lifting COVID-19 containment measures' need to be strengthened and such measures are crucially required in sub-Saharan Africa to recover from the recent crises and to increase resilience to possible future crises and shocks.

The biggest challenges of the tax and fiscal policy measures in Ethiopia refer to the increase in spending and loss of revenue, an expanding deficit and the dependence on both import revenue and state-owned enterprises, and adaptation to the post COVID-19 crisis situation. In Croatia, on the other hand, adjustment to the post COVID-19 situation, the widening fiscal deficit and rising spending after the COVID-19 pandemic are identified as the major challenges facing its fiscal policy. The widening gap that results in a budget deficit has a huge impact on the service provision capacity of governments. Following that, the governments of Ethiopia and Croatia should consider policy measures that address the series of budget deficits experienced in the last couple of years during the COVID-19 pandemic.

New daily cases of COVID-19 hit another peak of 4,547 on 30 October 2021 in Croatia, compared to 384 cases in Ethiopia. The stringent measures in Croatia need to be imposed again, starting in November 2021 onwards. Although the Ethiopian and Croatian governments have issued a variety of health and non-health measures, involvement in the social and economic policy direction is not where it should be. The limited fiscal space means the COVID-19 pandemic has hit Ethiopia harder than Croatia and some specific measures are required to be implemented in Ethiopia. These measures include support in terms of income and liquidity and designing a tax and fiscal policy that benefits everyone. The introduction of new tools, reforming the tax and fiscal policy sector, fiscal consolidation, digitalization of the economy, and launching a stimulus package targeting, households, healthcare, manufacturing and service industries can also help to narrow the existing gaps between spending and revenue in Ethiopia and Croatia. The coordination of tax and fiscal policy with other policy tools such as monetary policy are essential and particularly decisive in the post COVID-19 response.

The coordination of tax and fiscal policy with other policy tools such as monetary policy are essential.

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Chapter 10

Tax and fiscal policy responses to the COVID-19 pandemic: The experience in North Macedonia

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1 Introduction

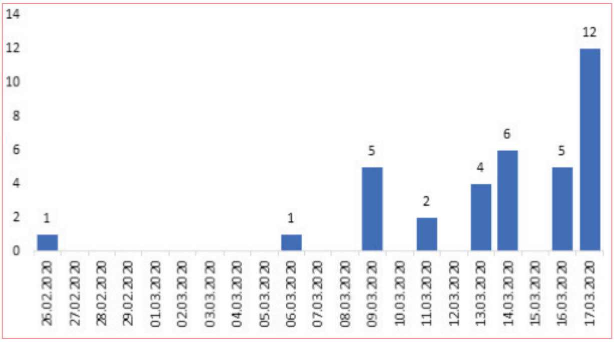
The health crisis caused by COVID-SARS-19 has challenged global and national health systems considerably. The coronavirus pandemic has disrupted global demand and been responsible for a significant reduction of economic activity. The uncertainty brought by the pandemic and its continuation have severely affected small economies. Our state has not only been challenged by the need to address the health issues of COVID-19, but many economic, financial, political and social issues have also become of the highest priority. A vast number of ad hoc policies, measures and government decisions have been introduced and implemented in 2020 and 2021. Therefore, a huge legal reconstruction was undertaken just to reflect the unexpected contemporary situation facing society, the business sector and citizens on one hand and the NATO and EU accession requirements on the other. The cornerstone of all these changes is the fiscal policy, budget rebalances, digital transformation and improvement of the public procurement system, maintenance of the economic sustainability of the country and mitigation of the effects of COVID-19. The fiscal policy and budget have thus been designed to support macroeconomic stability, the economic recovery and to accelerate the economy's (international and national) growth.

This research is mainly based on the analyses of online published public documents and official legal acts (national strategies, policies, EU recommendations, reports, laws and bylaws, official websites of governmental and non-governmental bodies).

2 The COVID-19 situation in the Republic of North Macedonia and the EU recommendations during the pandemic

The first COVID-19 case was registered on 26 February 2020 (see Figure 1). The country's official statistics (published by the Institute of Public Health of the Republic of North Macedonia), show that 1,385,429 COVID-19 tests had been performed by 31 October 2021. According to the same source, the total number of COVID-19 diagnosed persons in the country since the start of the epidemic is 202,552, the number of recovered patients is 188,540, the number of deaths is 7,132, and there are 6,880 active cases (Government announcement, 2021).

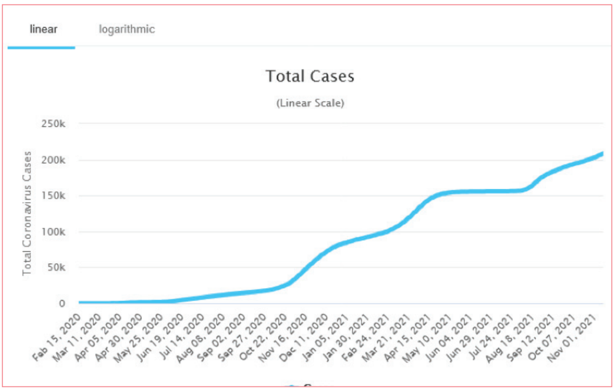
Figure 1: Distribution of COVID-19 patients in North Macedonia by Laboratory Diagnosis Day, 2020 (n = 36)



Source: Institute of public health of Republic of North Macedonia, 2020.

A summarized linear graph of total active cases from the first registered case until 1 November 2021 is shown in Figure 2.

Figure 2: Total coronavirus cases in North Macedonia



Source: Worldometers, 2021.

Following the outcome of the European Council Report in October 2019, Macedonian political parties together decided to hold early parliamentary elections on 12 April 2020. Therefore, a technical government was appointed in January 2020 so it could continue with the EU and NATO integration processes. The NATO integration process was completed in March 2020. In March 2020, members of the European Council endorsed the General Affairs Council's decision to open accession negotiations with North Macedonia. In the meantime, following the outbreak of the COVID-19 pandemic, for the first time a state of emergency was declared from March until June 2020. On 18 March 2020, a state of emergency was declared under a Decision of the President. The proclamation of a state of emergency resulted in a derogation from the European Convention for the Protection of Human Rights and Fundamental Freedoms and the constitutional (civil liberties) fundamental human rights, in accordance with Article 15, paragraph 1 of the European Convention for Protection of Human Rights and Fundamental Freedoms on 2 April 2020, when the country submitted its first notification (six in total) to the Council of Europe, together with Decision No. 08-526/2, signed by the President of North Macedonia, declaring a state of emergency (Risteska, 2020).

Since April 2020, the COVID-19 crisis has left its mark on the economy and public finances. The authorities have taken a range of measures to support companies and households in order to ease the economic and social impact of the crisis. In the reporting period, fiscal transparency was further improved. However, the fiscally significant reforms of income taxation and the pensions system, introduced at the start of 2019, were reversed (European Commision, 2020).

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North Macedonia faced a peak in the contamination levels in mid-December 2020, after which the number of active COVID-19 cases has been steadily decreasing. The socio-economic status of the country was strongly influenced by the adverse effects of the length of the pandemic. This led to adoption of the 2021-2023 fiscal strategy of the Republic of North Macedonia in December 2020 (The Government of the Republic of North Macedonia, 2020). The fiscal strategy provides medium–term projections and is in accordance with the Macedonian Budget Law. With regard to the Decision on determining strategic priorities for 2021, the government of North Macedonia remains committed to achieving the most important strategic priorities, including the following: ensuring accelerated and sustainable economic growth, improved the living standards and quality of life of the citizens; dealing with the global COVID-19 pandemic; and successful accession negotiations with the European Union. Bearing in mind the government's strategic priorities, several priority goals are determined in this fiscal strategy, such as: maintaining financial and macroeconomic stability, increasing the competitiveness of the economy and employment; fiscal sustainability and support for the economy with investments in infrastructure projects; a predictable, efficient and fair tax system, reducing the grey economy, encouraging private initiative and investment; public finance reforms, improvement of the fiscal framework, strengthening the planning process and execution of the budget of North Macedonia, improvement of the revenue collection, strengthening the public procurement system, internal and external control and transparent reporting; increasing the investments through direct support for the investment activities of companies, promotion and facilitation of the investment climate and the internationalization of businesses; support and development of sustainable and competitive micro, small and medium companies, improving the area of crafts, full use of entrepreneurial spirit and knowledge of domestic human resources; quality management and coordination of the accession process to the European Union and consistent fulfilment of the obligations arising from the Stabilization and Association Agreement and other legal rules that regulate the bilateral relations with the European Union; efficient use of EU accession assistance and strengthening the established system for financial management and control of IPA funds in order to adjust the system to manage the structural funds, etc. (The Government of the Republic of North Macedonia, 2020).

On 25 January, the economy had 420 active cases per 100,000 inhabitants and 91,555 cases in total (vs. 2,768 per 100,000 and 57,451 cases in total on 25 December). Since December 2020, the government of North Macedonia has declared a state of crisis, somewhat slowing down the gradual deconfinement plan (in place since May 2020) (OECD, 2021).

According to the weekly report of the Institute for Public Health of the Republic of North Macedonia, in the last week of October 2021 (25–31 October 2021) the number of positive cases rose, with 2,804 new cases being registered from 32 cities in the country, with an increase of 3.7% compared to the previous week. The percentage of positivity ranges from 9.9% to 16.0%, on average 13.2%. Most registered cases are from Skopje (n = 1,293; 46.1%), with a weekly incidence of 203.9/100,000 (Institute of Public Health of Republic of North Macedonia, 2021). According to the latest data published by the WHO, on 24 October 2021 the number of confirmed cases globally was 243,248,796 (2,940,336 in the last 7 days, a 4%

increase over the previous week), the number of deaths globally was 4,943,201 (49,413 in the last 7 days, a 5% increase over the previous week). In comparison to the WHO European Region for the same period, the official statistics show the following data: confirmed cases – 74,963,293 (1,671,245 in the last 7 days, an 18% increase over the previous week); deaths – 1,400,894 (21,475 in the last 7 days, a 14% increase over the previous week) (ibid.).

Despite the financial constraints, the government took the necessary measures to mitigate the negative effects on the economy. The pandemic has hit already vulnerable groups, the poor and the unemployed the hardest. Consequently, sole proprietors and small and medium companies have been hit by the imposed restriction measures and international bans.

According the EC Report (COMMISSION STAFF WORKING DOCUMENT, North Macedonia 2020 Report, SWD (2020) 351 final) for North Macedonia, the country has made some progress and is moderately prepared to cope with the competitive pressures and market forces within the EU. Integration with the EU in trade and investment has further deepened. Exports and manufacturing output have diversified further towards higher-value products. However, skills shortages, reflecting shortcomings in the education system and the outflow of skilled workers, as well as infrastructure investment gaps impair labour productivity and the competitiveness of the economy. While measures to mitigate the immediate adverse impact of the COVID-19 crisis on growth and employment are currently prevalent, addressing these structural needs in a timely manner would support a swift post-crisis economic recovery (European Commision, 2020). As stated in the Commission's Communication on An Economic and Investment

Plan for the Western Balkans: "COVID-19 is having massive disrupting effects on the economies of the Western Balkans, which were already lagging behind in terms of economic convergence with the EU. The region faced continued challenges from weak competitiveness, high unemployment and significant brain drain. The need to step up convergence efforts through implementing structural reforms, overcoming structural weaknesses, strengthening innovation potential, and accelerating the green and digital transition, also in light of their future in the EU, is more pressing than ever" (EUROPEAN COMMISSION, 2020). Therefore, in October 2020 the Commission proposed an Economic & Investment Plan to support and bring the Western Balkans closer to the EU's Single Market. This Economic and Investment Plan aims to: spur the long-term recovery – backed by a green and digital transition – leading to sustained economic growth, to unleash the untapped economic potential of the region, and the significant scope for increased intra-regional economic cooperation and trade (EUROPEAN COMMISSION, 2020). Furthermore, in this Communication, the Commission proposes to mobilize up to EUR 9 billion of IPA III funding for the period 2021–2027 to support economic convergence with the EU primarily through investments and support to competitiveness and inclusive growth, sustainable connectivity, and the twin green and digital transition. The Commission proposed that a large majority of this support be directed to key productive investments and sustainable infrastructure in the Western Balkans.

The Commission proposed that a large majority of this support should be directed to the key productive investments and sustainable infrastructure in the Western Balkans.

In June 2021, the government of North Macedonia adopted the National Programme for Adoption of the EU Acquis-NPAA (2021–2025) (The Goverment of the Republic of North Macedonia, 2021). The National Programme for Adoption of the Acquis Communautaire, i.e.

the NPAA, is a national framework or plan for meeting the conditions, i.e. criteria, for membership (Copenhagen Criteria) of North Macedonia in the EU. The whole process of preparing and monitoring the Programme is performed by the Secretariat for European Affairs and thus is an important milestone in the work of the Secretariat for European Affairs. The Programme is key instrument for conducting the process of accession of North Macedonia to the EU, being the basis for monitoring the country's progress in the EU accession process. The Programme takes the format of a medium-term plan of activities needed to meet the criteria for the EU membership of North Macedonia. The NPAA includes a narrative part and Annexes include overview tables, providing a clear picture of the reforms and the activities for EU acquis harmonization to be undertaken over the coming years, for building and strengthening the administrative structures necessary for the acquis implementation, as well as the necessary budget resources (Ministry of Finance , 2021). The Ministry of Finance is responsible for the following NPAA Chapters: Free Capital Movement, Public Procurement, Financial Services, Taxes, Economic and Monetary Union, Regional policy and coordination of structural instruments, Customs Union, Financial Control, Financial and Budget Provisions.

As a small and open economy, North Macedonia is particularly exposed to any reduction in global trade flows and financing, as well as a weakening tourism sector (OECD, 2021). The forecast is that the EU accession process will anchor the policy and support exports and foreign direct investment inflows.

3 Current state of the tax and fiscal policy in North Macedonia during the COVID-19 crisis

By April 2021, the government had adopted six packages of economic measures. The measures (economic, reliefs, stimulus) in these packages focus on supporting the population, companies and the retail economy. These measures thus fall into three categories: measures that cause budget expenditures or direct fiscal implications, measures that cause reduced budget revenues, and measures that have an economic impact and do not have fiscal implications.

The measures (economic, reliefs, stimulus) in these packages focus on supporting the population, companies and the retail economy.

The first package of measures was presented on 18 March 2020 (on this date, a state of emergency was declared by the President). The package consisted of intervention measures aimed at protecting the liquidity of companies and jobs, targeting the citizens and companies most affected by the health crisis. A total of EUR 12.2 million was allocated to this package, while the amount of EUR 11 million was implemented. As a result of the priorities of the first package, which had focused on responding to the crisis as soon as possible, the adopted measures were mainly from the group of measures that caused reduced budget revenues, as well as from the group of measures with an economic impact but no fiscal implications. The lost revenues arising from the measures in this group were planned at EUR 5.5 million, and EUR 5.49 million or 100% was actually implemented. The first package of measures envisages exemption from the payment of monthly advance payments for personal income tax and profit tax from March to July 2020 for entities with 30% lower revenues compared to the previous period, with lost revenues of EUR 2.1 million, as well as the subsidizing of 50% of the contributions for April, May and June 2020 per employee in companies in affected sectors where revenues of EUR 2.5 million were lost. The customs duties for certain grounds were also abolished, and the penalty interest for public charges was reduced. In addition to interest-free loans, the first package lowered the key interest rate of the National Bank to 1.75%, and simplified the method of issuing, transmitting and receiving invoices in electronic format (The Government of the Republic of North Macedonia, 2021). The main measure in the economic package is direct assistance in the amount of MKD 14,500 (approx. EUR 235), a month for each employee, for the months of April and May, from all companies affected by the crisis. Moreover, for the same period April/May 2020, financial support was provided from the budget of North Macedonia for sport clubs and national sports federations, individual artists, unemployed persons who have been continuously employed for at least 9 months. For measures without fiscal implications, in the first package, interest-free loans in the amount of EUR 5.5 million were realized through the Development Bank for the protection of the liquidity of micro, small and medium enterprises whose economic activity has been most affected by the pandemic and to protect jobs in companies having trouble paying wages. This measure, supported 737 companies with 6,509 employees. Within the first package, no funds were realized for measures that caused budget expenditures, or direct fiscal implications.

The second package of economic measures was adopted on 31 March 2020 and consisted of concrete measures with a direct impact on the real economy and providing direct assistance to each family, individual and small and medium enterprises. The aim was to support the economy, keep jobs, maintain social stability and help the citizens affected by the crisis. The value of the second package was significantly higher than the first. Within this package, EUR 332.9 million was allocated, and all of the planned funds have been implemented. The state took care of the people working in the grey economy who have been left without any income due to the crisis. It provided cash assistance for households and energy compensation for social protection beneficiaries. In addition, the Law on Enforcement, the bank loan payments, and the bankruptcy procedure were terminated earlier in June. Within the framework of the ongoing agreement for a loan between the DVRNB (Development Bank of the Republic of North Macedonia) and the EIB (European Investment Bank), the government enabled the use of beneficial loans intended for small and medium enterprises in order to protect their liquidity (EUR 8 million was provided for a new line of interest-free loans from the Development Bank, which supported 639 companies with 11,325 employees). A Solidarity Fund for COVID-19 was established.

Most of the support refers to measures from the second package that did not have fiscal implications, primarily the possibility of postponing and restructuring loan repayments for companies and citizens for a period of 3 to 6 months. For measures that caused direct budget expenditures, EUR 85.9 million was allocated, and the funds were fully implemented. By far the most important measure in this group concerns the support for employers in securing jobs, in the amount of MKD 14,500 (at the level of the minimum wage) per employee for the payment of salaries for April, May and June, for companies and the self-employed which had experienced an income reduction of at least 30%. EUR 84 million was allocated and realized for this measure, which covered about 120,000 employees.

The third package was announced on 17 May 2020. Its aim was to revive the domestic economy through direct support of the citizens and the economy. It contains short- and medium-term measures for revitalization of the domestic economy. A total of EUR 229.3 million was allocated for the third package, of which EUR 172.9 million or 75.4% had been implemented by February 2021. This package was mostly intended for individuals, i.e. EUR 122.4 million, while EUR 106.9 million was aimed at legal entities. Among the mentioned aims, this package aimed to support the development of economic activities with the introduction of IT and online activities and tools, to stimulate and increase non-cash and online payments as a tool to reduce the grey economy etc. This package included several measures with a significant amount of budget expenditure, primarily payment cards, in the amount of MKD 9,000 (approx. EUR 146) for all unemployed persons, in the amount of MKD 3,000 for young people and employees with a net salary of less than MKD 15,000 per month. For this particular measure, EUR 28 million was implemented, allocated to about 309,337 citizens. EUR 86.0 million was allocated to measures that do not have fiscal implications in this package, but a higher amount was implemented (EUR 86.9 million). This package provided new significant credit lines. Favourable loans with an interest rate of 1.6% were approved for companies through the Development Bank within the EIB credit line, in the amount of EUR 50.9 million for 186 companies. Interest-free loans to companies in the total amount of almost EUR

28 million were also approved through the Development Bank, which supported 2,459 companies with 17,747 employees. EUR 5 million was provided to support the agricultural sector through the Development Bank, of which EUR 1.8 million has been realized thus far. In addition to credit lines, the third package envisages opportunities for public–private partnerships in the viticulture and tobacco sectors, the long-term lease of pastures and consolidation of agricultural land. According to the government's official website, there are no measures in the third package that cause a reduction in budget revenues.

The fourth package of measures was adopted on 27 September 2020 as direct aid to the economic and social security of citizens, as well as to encourage private consumption as a stimulator of social growth. A total of EUR 472.1 million has been allocated to the fourth package, of which 73% or EUR 343 million has been implemented, with a significant increase in the realization being expected in the following period. Within this package, EUR 293.4 million has been allocated for direct budget expenditures, of which EUR 272.8 million or 93% has been implemented. Some of the most important measures from the previous packages have been extended. EUR 70 million was spent on financial support for the payment of salaries in October, November and December, with this support being used by 13,042 companies with 70,766 employees in total. In addition, EUR 27.6 million was implemented to financially support vulnerable categories through the payment of funds to the transaction account for higher consumption and for the development of domestic economic activities, as used by 254,646 users. Part of the loan from the World Bank to support the health and social sectors in the amount of EUR 68.4 million has been implemented. Regarding those measures that do not have fiscal implications, a new EUR 100 million in favourable loans from the Development Bank is envisaged, the realization of which is in the final procedure. Further, the grace period of the interest-free COVID-19 credit line was increased, and additional postponement of the loan repayments by companies was enabled until the end of 2020. Deferred VAT payment is also allowed 5 days after submitting a VAT return.

After a 2-month extension due to the demanding political debates and during a time of intense difficulty in establishing consensus in the Parliament, the fifth package was adopted on 25 March 2021. The continuing pandemic means the measures from the 5th package of economic aid will last throughout 2021. This package is divided into 29 different measures, and amounts to almost MKD 10 billion or EUR 160 million, EUR 91.7 million of which is direct budget expenditures. Export companies that will receive customs benefits include farmers or tobacco growers and growers will receive direct financial assistance, as well as tourism, the events industry, broadcasters, sports clubs, but also citizens who have interest written off from debts for state and local businesses. The first measure is salary assistance, which will be used by approximately 60,000 employees in February and March. The value of this measure is around MKD 2 billion, and companies are left with an opportunity to choose whether to receive salary subsidies or interest-free development loans. For citizens burdened by interest on debts, public enterprises and/or other state institutions, the interest would be deleted and forgiven, as they will have to pay the basic debt in 1 year. To make this measure functional, the government also made an urgent request to the EVN and BEG to annulate the interest rates from the unpaid electricity and heating bills, therefore the law on trade companies will be amended so that the tax on written off debts will not be paid. It was stated that this is the last pandemic wage subsidy as the government and the Prime Minister expect the crisis to fade, GDP to grow in the second quarter and to recover and grow in the period from July onwards. This package is a direct continuation of the previous four packages and aims to bring the economy closer to its familiar economic growth rates in the range of 4% to 5%, i.e. the growth dynamics as before the pandemic. As part of the fourth package of measures, on 27 October the government reviewed the Framework Agreement for public procurement of the antiviral "remdesivir" and instructed the Ministry of Finance to provide within the budget of the Ministry of Health for 2020 an additional MKD 13,500,000 for its procurement in October (OECD, 2021).

North Macedonia's previous five support packages for individuals and businesses affected by the pandemic were worth more than EUR 1 billion in total. In 2020, North Macedonia's budget deficit amounted to around 8.11% of GDP (O'Neill, 2021). In April 2021, North Macedonia's government adopted the sixth package. A new set of financing measures worth EUR 17.8 million (USD 21.4 million) is to support companies and citizens most affected by the COVID-19 pandemic. "The sixth package, since the COVID-19 outbreak, will support 10,000 local companies working in the pandemic-hit sectors which employ approximately 60,000 people", the government said in a statement (Government of the Republic of North Macedonia, 2021) on Tuesday. Companies

North Macedonia's previous five support packages for individuals and businesses affected by the pandemic were worth more than EUR 1 billion in total.

working in the hospitality and events industries, as well as wedding venues, playrooms, nightclubs, fitness centres and photographic studios, will receive financial incentives equal to 30% of their average income in 2019 and 2020, as well as wage subsidies. Travel agencies will be given stimulus payments of EUR 2,000 or EUR 5,000, depending on their licence. Musicians and tour guides with a low income in 2020 will receive stimulus payments of MKD 30,750 (USD 600/EUR 499). The government will also support companies which have reinvested their 2020 profits by subsidizing their interest payments on loans provided by the country's Development Bank. Local media will benefit from interest-free loans from the Development Bank of North Macedonia (Petrushevska, 2021).

4 Challenges and opportunities for tax and fiscal policy in the Republic of North Macedonia and related measures in the digital transformation era of the COVID-19 pandemic

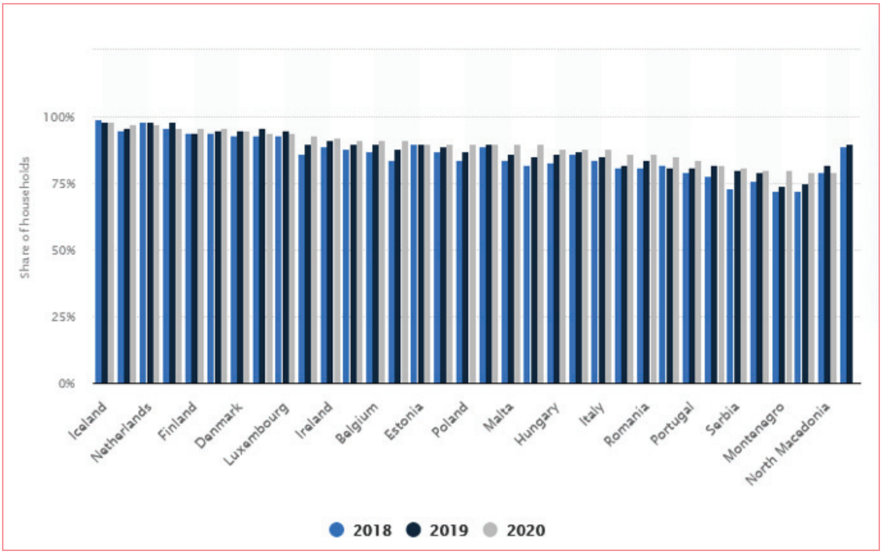
Within six packages, 106 measures have been adopted to counter COVID-19's impact on the socio-economic status of the country. These measures can generally be divided into several groups: aid for the payment of wages, support for loans, support for local consumption, tax measures, reduction of Para fiscal charges, import duties, tourism, agriculture, and catering.

In the first 9 months of the pandemic, activity in the service sector shrank by 3.5%, as a result of the unfavourable movements in the trade, transport and catering industries, that registered a decline of 10.8%, which was partially neutralized by the favourable trends in the information-communication industry, whose activity grew by 4%.

The construction sector has dropped by 2.5% in real terms, which according to high frequency data was due to the unfavourable trends in the construction sector, while construction work in the civil engineering sector registered an increase. The agricultural sector in this period saw real growth of 4.1%. All of these data were presented at a government official briefings that was broadcast on all social media.

For the first time, free online access has been provided to the Official Gazette of the Republic of North Macedonia during the state of emergency. All published decisions can be found in the special COVID-19 section of the government's website. Lately, all public bodies have created a special COVID-19 section on their websites. In the first quarter of 2020, according to the State Statistical Office of North Macedonia, 79.9% of households had Internet access. Compared to 2019, this means a more than 2% decrease in households with Internet access. A decrease in overall Internet access in 2020 is also seen in other countries like the Netherlands, Sweden and Norway. In 2020, 91% of households across the EU-27 had access to the Internet. The increase of 1% over the previous year continued the trend of improved household access that may be observed across the European Union. Countries like Germany and Belgium have continued to expand their already high shares by small increments, while other European countries with initially smaller shares like Poland and Latvia have made more headway with their improvements (see Figure 3) (Statista Research Department, 2021).

Figure 3: Household Internet access in European countries 2017–2020



Source: Statista Research Department, 2021.

According to Statista Research Department analyses, all countries that saw such a decline still ranked among the nations with the highest overall share of households with access to the Internet. Access to the Internet is a sine qua non for the digital transformation of economies and societies.

In the same vein, the transformation and development of new e-health platforms, tools and health services have been promoted to the population all over the globe during the COVID-19 pandemic. The transformation of education has seen the same path, with COVID-19 resulting in the closure of schools and universities. The accelerated rise of e-learning has become an unchallengeable need during the COVID-19 crisis. Yet, we must mention that even before COVID-19 education technology was already experiencing high growth and adoption levels.

The economy of North Macedonia has been further challenged by its commitment to implement the Digital Agenda for the Western Balkans (launched in June 2018 by the European Commission) and the EU Digital Strategy (European Commision, 2020) as contained in the Investment Plan for the Western Balkans. A first step in implementing this Economic and Investment Plan could be a package of infrastructure projects frontloaded for funding in 2021–2022 with the expectation that these would unlock significant investments. This would allow mature project proposals, particularly in the areas of digital, transport, energy transition and the environment, after appropriate assessment, to be completed or substantially advanced by 2024 (EUROPEAN COMMISSION, 2020).

According to the International Monetary Fund (IMF) COVID-19 policy Tracker report (IMF, 2021) on the policy response in North Macedonia, the fiscal, monetary and macroeconomic responses by July 2021 were as follows: The government had adopted fiscal measures to help address firms' liquidity problems, protect jobs, and support the most vulnerable categories. The measures, most of which are temporary, include subsidies on private sector wages and social security contributions for firms that maintain employment, the postponement of income tax payments, loans on favourable terms and loan guarantees, and sector-specific support. Vulnerable households have also received financial support through existing social assistance schemes and cash vouchers. Students have received the partial re-imbursement of university tuition fees and IT courses. Previously implemented price controls on basic food products, medicines, and disinfection products have been lifted, and the import duty on medical supplies has been reintroduced. As concerns the monetary and macro-financial policy, the National Bank of the Republic of North Macedonia (NBRNM) has cut its policy rate three times since the start of the crisis by a cumulative 75 basis points to 1.25%. The fees for withdrawing and returning cash to the National Bank's central vault have been abolished to minimize any risk of transmitting the virus infection by coins and notes. In addition, the NBRNM has reduced the amount of CB bills offered to banks, thus providing additional liquidity to the economy. In 2020, the European Central Bank (ECB) and the NBRNM established a EUR 400 million repo line arrangement which provided the NBRNM with access to euros, subject to the provision of adequate collateral. The repo line was extended in February 2021 and will remain in place until March 2022. Regarding financial sector measures, the NBRNM revised its credit risk regulation in 2020 to encourage banks to restructure loans temporarily (initially by September 2020, but later extended to March 2021), and temporarily relaxed the loan classification standards for NPLs by September 2020. The regulatory flexibility formally ended at the end of March, and only a minor part of banks' credit portfolios still has payment grace periods that have expired gradually through 2021. The NBRNM has also reduced the base for the reserve requirement by the amount of new loans to firms in affected sectors and extended the deadline for banks to submit their first Internal Liquidity Assessment Report in order to allow them to focus on providing credit while maintaining the quality of the loan portfolio. In February 2021, the NBRNM decided to temporarily restrict dividend payments by banks unless in the form of shares, thereby strengthening the supervisory guidance of 2020 (IMF, 2021). This decision was followed by recommendations of the IMF and the ECB. The Decision for restriction was reviewed by the National Bank Council on 3 August 2021 and it was decided to repeal the Decision on temporary restriction of dividend distribution and payment. According to the assessments of the international financial institutions and the central banks of the leading economies, the economic environment is improving in global terms, supported by the mass vaccination against COVID-19 which, together with the monetary and fiscal stimulus to support economies, mitigates the risks for global economic growth. Considering the mitigated risks arising from COVID-19, on 23 July 2021 the European Central Bank decided to lift restrictions on bank dividends, while on 30 June 2021 the US Federal Reserve System ended its temporary restrictions on dividend payments (NBRNM, 2021). The development and implementation of the fiscal policy during COVID-19 depend largely on the health policy.

The fiscal policy and the budget were developed and implemented through these economic measures during 2020 and 2021, following the public debt and the domestic economic growth. The last two packages had direct financial implications for the central budget and thereby challenged the government to balance the public debt with the budget deficit.

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According to Fitch, the adoption of a new organic Budget Law could provide an anchor for fiscal consolidation through the introduction of a revamped fiscal framework, including fiscal rules and the formation of a Fiscal Council (Fitch, 2021). The Agency expects the government debt to reach 53% of GDP by the end of 2021 and 55.3% of GDP by 2023. The budget deficit will drop to 3% of GDP by 2023, while net FDI are expected to recover to 3.1% of GDP by 2022, fully financing the current account deficit.

5 Policy recommendations for different stakeholders

The policy should be developed after discussions with all relevant stakeholders, although the uncertainty surrounding the COVID-19 pandemic makes that fairly difficult to be achieved. Analyses show that during the state of emergency most policies, measures and acts have been adopted ad hoc without previously consulting the business sector and the professionals. Therefore, the country should develop an applicable legal framework and procedures during the state emergency.

Most measures for countering COVID-19 have been adopted by the government, not the Parliament, during the state of emergency. In addition, many acts have been adopted under the EU flag (reflecting the importance and relevance of the upcoming membership). The authorities should build a resilient system that will strengthen the institutions while implementing the policy measures, as well as monitoring them. Public decision-making (on the central and local level) should consider the independent opinion of professional and scientific organizations, as well as society (citizens and the community). Planning challenges for the public authorities make it difficult for public bodies to plan response and associated procurement needs given the evolving nature of the situation and the public health advice. Yet, the nature of the fiscal policy measures imposes an obligation to ensure timely designed, thoughtful and efficient implementation. The government should take responsibility when the strategies, policies, international standards, EU recommendations and best practices have not been implemented.

There is urgent need to maintain e-health governance and exchange information between the public and private healthcare systems since this is the only way of building a sustainable national healthcare system during and after the COVID-19 crisis. The health capacities, especially of the e-health system, should be strengthened. Special bodies and professionals should provide free counselling and financial planning to both individuals and legal entities. The COVID-19 web-based platforms must comply with the requirements of the GDPR (General Data Protection Regulation).

Various stakeholders in the country (such as the Organization of Employers of Macedonia (OEM), Business Confederation of Macedonia (BCM), Federation of Trade Unions of Macedonia, and many other civil society organizations) with the support of donors (like the ILO, FES and many others) have been involved in conducting surveys to capture the challenges and needs of businesses arising from the protracted COVID-19 crisis, which helped to assess the effectiveness of the emergency economic measures implemented and to identify the types of support expected.

The National Bank, as one of the main

stakeholders, is designer of the monetary policy. Therefore, its main objective is to maintain the monetary policy objectives. In 2021, the NBRNM stated that the country has a stable macro-economic environment. This reflects the prudent behaviour of the banks and all the financial institutions that form the bank and the financial sector, as well as the previous carefully made decisions of the National Bank Council. The results of the latest National Bank cycle of stress testing the domestic banking sector showed solid resistance to the assumed shocks. Within the regular supervision process, the National Bank continues with its regular monitoring and evaluation of the banks' capital positions, taking appropriate measures and strengthening the stabilization of the market and the foreign exchange market.

The government and the central bank should focus on boosting the country's credit rating. The credit rating of a key indicator potential investors consider while making decisions. Credit rating has a positive effect on the decision-making as regards investing in a particular country, further contributing to higher economic growth, strengthening exports, increasing employment and higher wages. Affirmed credit ratings of countries amid the pandemic also contribute to the reduction of government debt, thus creating interest savings.

Economy-related recommendations for North Macedonia are that the government needs to continue to help the economic operators (especially small and medium-sized companies, tourism and catering). The government should take the lead by introducing and enforcing rules for safe working conditions. The new types of working models were covered under the stay-at-home economy, but the governmental bodies must ensure that employers' and employees' rights are protected.

The government and the most relevant stakeholders should continue with educational programmes and follow up the updated digital tools. Also important is exchanging information and following the best practices of countries in the region and the EU, noting that there are expectations of a fifth wave of the corona virus. The government should specifically target financial measures for companies to increase their liquidity and specify the timeframe for implementation. The plan of many companies to postpone the payment of their liabilities during the restrictive measures has challenged them with respect to making payments to creditors. Changes in the VAT payment system allowing payment upon collection, instead of payment upon issuance of an invoice, have significantly affected the liquidity of companies, which has led them to call for the government to introduce the payment of VAT upon collection as a new emergency measure.

The business environment continues to be impeded by the considerable share of the informal economy, and thus monitoring and report controls should be provided by the relevant institutions. There is need to strengthen the network with the Western Balkan countries and to exchange best practices in order to implement the economic measures in response to support the national economic policy and maintain the country's financial stability.

The country has continued to improve its alignment with the EU. According to the 2020 and 2021 European Commission

The business environment continues to be impeded by the considerable share of the informal economy.

reports (COMMISSION STAFF WORKING DOCUMENT, North Macedonia 2020 and 2021 Communication on EU Enlargement Policy) for North Macedonia, the country has a good level of preparation in the areas of science and research and customs union, but is moderately prepared in most areas covered by Cluster 3 on competitiveness and inclusive growth, including the information society and media, taxation, enterprise and industrial policy, education and culture, and economic and monetary policy. According to the European Commission North Macedonia Report 2021 (European Commision, European Neighbourhood Policy and Enlargement Negotiations, 2021) , the country is moderately prepared in the areas covered by Cluster 6 on external relations and has made some progress during the reporting period. In its common commercial policy, North Macedonia has continued its efforts to coordinate its positions and closely align its commercial policies with those of the EU, including within the WTO.

6 Conclusion

The containment measures (curfew, travel bans etc.) and border measures (borders closed to foreign citizens, quarantines, export ban) have negatively affected the domestic market. The Macedonian economy has been severely affected by the impact of the measures imposed in the Western Balkan countries and the EU countries in response to the COVID-19 crisis.

According to the EC (European Commision, European Neighbourhood Policy and Enlargement Negotiations, 2021) North Macedonia Report 2021, in 2020 the implementation of public capital expenditure remained markedly low and the stabilization of public debt is still not secured. In 2020, North Macedonia's budget deficit amounted to around 8.11% of GDP while its public debt rose sharply to 60.2% of GDP (European Commision, 2021). The Unemployment rate, according to the Labor Force Survey, decreased to 16% in the first quarter of 2021, which is a decrease of 0.2 percentage points compared to the same quarter of the previous year (Ministry of Finance, SEMI-ANNUAL REPORT FOR THE BUDGET EXECUTION OF NORTH MACEDONIA JAN-JUN 2021, 2021).

In 2020, North Macedonia's budget deficit amounted to around 8.11% of GDP while its public debt rose sharply to 60.2% of GDP.

With a view to overcoming abuses of the current market situation, the government imposed measures to support the population in the face of increased market demand for basic food products and hygienic products to return to the normal price. In addition, exemption from the payment of profit tax advance payments refers to legal entities from the catering, tourism or transport industries and other taxpayers which have suffered losses in their work due to the implementation of the measures for dealing with COVID-19. Employment has increased mostly in information and communication activities, health, social protection and trade. On the other hand, employment has mainly fallen in the agricultural sector and the supply of electricity and water, and to a smaller extent in construction, transport and catering. The average monthly net wage in 2020, according to forecasts, rose by 7.8%, as a result of the measures taken before the pandemic, such as: raising the minimum wage, a government measure to financially support employers who will reach a certain level, salaries of public sector employees were increased in September 2019, as well as an additional increase in salaries in the education and health sectors in 2020. On the other hand, the measure for financial assistance to employers affected by the health crisis for wage payments has had a downward trend in wage growth during the pandemic.

In 2021, public debt was constantly rising, reaching 64.4% of GDP (Ministry of Finance, 2021). As for now, total public debt amounts to 59.3% of GDP (EUR 6,950.7 million). The financial sector has remained robust and opportunities for credit financing for the private sector has strengthened. Although the country has been severely hit by the pandemic and moved into recession in 2020, the economy's gradual recovery has been seen in 2021. However, it is still uncertain how the year will end.

At the beginning of the pandemic there was neither a report on nor an audit of public spending on COVID-19. Some measures were introduced after passing through the regular procedure for adopting decisions in the parliament. Still, there were frequent public briefings by the government (Prime Minister, Minister of Health, Minister of the Economy and Minister of Finance). Consequently, all decisions, measures, undertaken activities and information about the corona crisis were included on the official websites. However, difficult reforms require huge political and financial investments and extra energy by all, which cannot be realized without starting the accession negotiations with the EU as an incentive for further advancement. Nowadays there is a crucial debate on the upcoming budget for 2022. The opposition parties have been critical of the budget for being more social-welfare oriented issue, not progressive, and that therefore is cannot lead to progress and sustainability.

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ISBN 978-2-39067-024-7

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This publication was co-financed by the European Parliament. The European Parliament is not responsible for the content of this publication, or for any use that may be made of it.