



Tax and Fiscal Policy in Response to the Coronavirus Crisis: Strengthening Confidence and Resilience

This report focuses on how tax policy can aid governments in dealing with the COVID-19 crisis. The report finds that governments have taken decisive action to contain and mitigate the spread of the virus and to limit the adverse impacts on their citizens and their economies. Through various measures, countries are helping businesses stay afloat, supporting households and helping preserve employment. This readiness to act helps boost confidence. However, further action, with broader and stronger measures, is needed. Policies will need to be adapted to the evolving health and economic challenges. Containment measures may only be removed gradually, so recovery may be uneven. Where recovery is weak, fiscal action can strengthen it. In this context, multilateral collaboration will be vital for recovery and to strengthen the global economy's resilience to future shocks. The report finds that specific support will be necessary for developing countries, including through international coordination, financial support and adaptation of tax rules that benefit all countries. Public finances will eventually need to be restored. All options should be explored, including revamping old tools, introducing new ones, and bolstering ongoing efforts to address the international tax challenges posed by the digitalisation of the economy.

Table of contents

Executive summary	4
1. The Policy Context	8
1.1. A simultaneous health and economic crisis	8
1.2. Policy objectives in relation to the pandemic	8
1.3. Policy responses	9
1.4. Outline of the report	11
2. Taking stock of recent measures	12
2.1. Overview of short-term measures	12
2.2. Support measures for businesses	14
2.3. Support measures for households	17
2.4. Measures to support investment and consumption	18
2.5. Measures to support the healthcare sector's response to COVID-19	19
3. Policies through containment	20
3.1. Challenges and the role of tax policy during containment	20
3.2. Lessons learned from countries' tax policy responses so far	22
3.3. Further measures to support businesses and households	23
3.4. Tax administration and implementation considerations	28
4. Recovering from the crisis	31
4.1. Gradually and carefully relaxing short-term measures	31
4.2. Delivering effective stimulus	32
4.3. Ensuring an inclusive recovery	32
4.4. Targeting business support based on needs and social returns	34
4.5. Strengthening resilience	34
5. Revenue impacts and restoring public finances	36
5.1. Revenue impacts of containment and mitigation	36
5.2. Impact on budget balances and public debts	39
5.3. Towards fiscal policy in the aftermath of the crisis	42
5.4. Looking ahead, a new approach to domestic resource mobilisation for developing countries may be required	43
References	45

FIGURES

Figure 1.1. Schematic policy phases during and after the pandemic	10
Figure 2.1. Estimated scale of fiscal packages in response to COVID-19 in selected countries	14
Figure 2.2. Main tax measures to support business cash flow in OECD and G20 countries	16
Figure 3.1. Global corporate debt levels have risen in recent years	24
Figure 3.2. There is substantial household and short-term corporate debt in some countries	25
Figure 3.3. Support for non-standard workers is often more limited	28
Figure 5.1. Tax Responses to GDP	38
Figure 5.2. The impacts of the financial crisis on tax mixes	39
Figure 5.3. General government gross debts and budget balances	40
Figure 5.4. General government gross debts in 2007 and 2019	41
Figure 5.5. Net general government interest payments	41

TABLES

Table 4.1. Percent of workers able to work from home by income percentile	33
Table 5.1. Average Tax-to-GDP ratios, 2007-2017	37

Executive summary

Decisive action has been taken to address the health and economic crises in the face of major uncertainty

The outbreak of COVID-19 is resulting in a health crisis and a drop in economic activity that are without precedent in recent history. Containing and mitigating the spread of the virus has rightly been the first priority of public authorities, to reduce the incidence of the disease, limit the pressure on healthcare systems and prepare for a stronger rebound as mitigation measures are relaxed.

The containment and mitigation measures have had sudden and profound economic impacts. OECD estimates suggest that the containment measures could lead to an initial decline in output between one fifth and one quarter in many economies, with consumer spending falling initially by about one third - these are rough indications that only capture the direct effects of containment in a context of very large uncertainty (OECD, 2020^[1]).

Uncertainty about the development of the pandemic and the duration of the efforts needed to contain and mitigate the virus is large. The evolution of the pandemic will also depend on ongoing efforts to expand the capacity to test, track and trace, to improve treatments for those with severe symptoms, and to develop a vaccine.

Many countries have already acted forcefully to limit the economic hardship caused by the direct effects of containment measures. The focus of economic policy measures has been on providing liquidity support to businesses to help them stay afloat and providing income support to vulnerable households.

Further and coordinated action to preserve economic capacity and protect the most vulnerable is needed. An escalating policy response, with broader and stronger measures, has been required to keep pace with evolving impacts and risks. Multilateral collaboration and coordination are vital to increase the effectiveness of countries' responses at all stages of the path to recovery and strengthen the global economy's resilience to future shocks. In this respect, the internationally coordinated G20 Action Plan to deal with COVID-19 can have large benefits, through spill-overs from joint action for the global economy.

Policy adaptation will be key. The focus can shift from support to limit hardship and maintain economic capacity to stimulus for economic recovery as containment and mitigation measures are relaxed. This progression towards recovery will likely not be linear and smooth, however, with containment and mitigation measures removed only gradually or partially. This might increase the risks of uneven recovery.

Specific support will be necessary for developing countries, which are facing the pandemic with weaker healthcare systems, less favourable conditions to sustain containment, larger informal economies and smaller scope for fiscal and monetary policy. These factors restrict their ability to respond to the health and economic challenges. As such, international coordination, including significant financial support and a willingness to look at how to adapt international standards and instruments to ensure benefits for low income and low capacity countries, will be needed to complement the measures they take domestically.

Immediate measures have supported business cash-flow, household income and employment

Many governments' economic policy responses have been rapid and extensive. The fiscal packages so far have aimed at cushioning the immediate impact of the sudden drop in economic activity on firms and households, and to preserve countries' productive capacity. While there are large variations in the size of fiscal packages, most are significant, and some countries have taken unprecedented action. Getting the support to where it is most urgently needed, including to small and medium-sized enterprises, nevertheless poses significant administrative challenges.

Maintaining business cash-flow has been a core goal of the fiscal policy measures that have been introduced, supported by monetary and financial policies. Measures have included extending deadlines for tax filing, the deferral of tax payments, the provision of faster tax refunds, more generous loss offset provisions, and some tax exemptions, including from social security contributions, payroll taxes or property taxes.

Countries have also implemented wide-ranging measures to help businesses retain their workers through short-time work schemes or wage subsidies. There is evidence, from policies implemented in the wake of the global financial crisis, that keeping people in work through such schemes is an effective way of providing income support and limiting job losses, while avoiding costly search and matching processes as recovery progresses.

Income support to households has been extended in many countries, generally through targeted cash benefits rather than through tax cuts, given the need to deliver support quickly. There are also instances where access to sick-leave benefits has been eased and eligibility expanded, with several countries broadening the coverage of unemployment benefits to self-employed workers in particular.

Policy during containment and mitigation should protect household income and employment, and keep businesses afloat

As containment and mitigation measures continue, further adaptation to fast changing circumstances will be key. Tax policy should continue to focus on limiting hardship while maintaining the ability for a quick rebound. This phase calls for fine-tuning and potentially expanding the set of policies already implemented. The costs of policy action may be high, but the costs of inaction are likely to be greater.

Protecting household income and employment remains essential during containment and mitigation. This phase may extend over time, which would increase the need for policy support as the impacts on households and businesses become longer and more widespread. There may be a case for extended wage and income support from governments. Particular consideration should also be given to the self-employed and workers in the informal sector.

Businesses are increasingly exposed to solvency risks in addition to liquidity risks as the crisis continues. Policies should adapt to the changing nature of risks, and could include extending deferrals, expanded loss carry-backs which help loss-making firms, and accelerated VAT refunds. The design of these measures should avoid increasing non-compliance risks.

Tax support should be targeted to those that need help the most. While administratively costly, targeting may help improve outcomes over time by allowing stronger support where the need is most pressing. Support can focus on the hardest hit sectors. Small and medium-sized enterprises could be prioritised as they may be less able to withstand liquidity and solvency risks. Businesses where employment risks are pronounced could be targeted too, to limit adverse impacts on households and aggregate demand.

Fiscal stimulus may be required to shore up recovery after containment and mitigation

Strong and sustained support will need to continue and evolve with the gradual recovery. Debt payments may lead to reduced consumption and investment. Supply shocks may also persist and productivity be reduced where containment and mitigation measures are prolonged or only relaxed gradually and partially. Where the recovery is anaemic, there may be a case for maintaining expansionary fiscal policy for a sustained period to stimulate broader household consumption and business investment. The support measures can be reoriented towards this goal, rather than replaced by large public works.

Stimulus during the recovery phase needs to be carefully timed and well targeted given potential differences in the timing of exit from containment and mitigation across sectors and countries. Efforts should be made to avoid locking parts of the economy in support mode where support is no longer needed, while continuing to provide sustained liquidity and income support where still required. Stimulus should provide immediate incentives to spend, be credible and well-communicated to avoid further eroding confidence and resulting mostly in increased savings instead of consumption. Stimulus could also connect to longer term policy objectives, including resilience to health risks, decarbonisation and other areas where positive spillovers exist.

Policy coordination will make stimulus even more effective. Countries least affected, and those with most room to act, could act strongly and create positive feedback loops through trade and investment links, providing a boost to the global economy, particularly since strengthening the ability of countries to respond to the health crisis will reduce the likelihood of flare-ups of the virus.

Exploring options for tax policy in the aftermath of the crisis

Tax revenues are likely to be significantly reduced for a number of years, due to the direct effects of the crisis as well as due to policy action during the crisis. The best way to boost tax revenue will be to support solid growth, including through sufficiently strong and sustained stimulus.

Tax policy can contribute to covering the costs of the crisis and policy responses to it. Efforts to restore public finances should not come too early, but when they come tax will have a key role to play. Revenue levels and tax structure may need to be adapted after the pandemic. This can occur in tandem with other policies to smooth the costs of the crisis over time.

The unprecedented nature of the crisis is prompting a reflection on whether some new tax measures could be contemplated and more traditional ones reconsidered. This could include reflections on how to support progressivity of the overall tax system. In consultation with member countries of the OECD/G20 Inclusive Framework on BEPS and other organisations, the OECD stands ready to explore and assess new ideas as well as revisit existing ones, e.g. solidarity levies, carbon taxes, etc.

In a post-crisis environment, it is likely that addressing the tax challenges of the digitalisation of the economy and ensuring that MNEs pay a minimum level of tax (Pillar 2) will become more prominent. The work of the Inclusive Framework to address the tax challenges of the digitalisation of the economy is ongoing and progressing, keeping track of the changing global economic circumstances.

The increased use of digital services and the need to collect more revenues could provide new impetus to efforts to reach agreement on Pillar 1 issues internationally. Governments could focus on incentivising investment while strengthening the taxation of economic rents and boosting resilience. Tax cooperation will be more important to avoid that tax disputes trigger trade wars which would harm recovery. Increasing tax certainty, by improving dispute resolution and prevention mechanisms, is part of this effort.

International support could help developing countries respond strongly

The COVID-19 crisis illustrates our collective vulnerability, and highlights the collective benefits for strengthening all countries' resilience to pandemics. As such, all countries have a direct interest in eradicating the virus and rebuilding economic life throughout the world. This will require a new scale of support for developing countries, where the human cost of the economic crisis will be felt deeper due to weaker healthcare systems, more limited capacity – including limited fiscal space – to cushion impacts, and larger exposure to reduced trade, tourism and lower oil prices. This will require significant new external financing, as well as more systematic support to restructure and cancel debts, and rebuild economies and tax systems that can provide universal healthcare will be needed.

International support can help countries improve their domestic resource mobilisation and provide the sustainable financing necessary for long-term resilience. Across a range of areas, including expanding the tax base through property, carbon and progressive income taxes, as well as through the digitalisation of the tax administration there is significant potential for developing countries to increase their revenues. In all of these areas international cooperation can make a significant contribution, through a combination of financing and the provision of expertise and information.

Low income and low capacity countries may further benefit from new efforts at the international level to address the challenges they face in taxing cross-border activity and offshore assets. Whilst significant progress has been made in recent years in increasing international tax cooperation, many developing countries, especially low income and low capacity countries, feel they have yet to benefit substantially, and perceive the need for further reforms. The Inclusive Framework should take stock of progress and identify new measures that could be taken to specifically address the challenges low income and low capacity countries are facing in international tax.

1. The Policy Context

1.1. A simultaneous health and economic crisis

The outbreak of the coronavirus is resulting in a health crisis and a drop in economic activity that are without precedent in recent history. Containing and mitigating the spread of the coronavirus has rightly been the first priority of public authorities, so as to reduce the incidence of the disease it causes (COVID-19) and thereby also limiting the pressure on health systems. Many countries have introduced extensive containment and mitigation measures to slow down and reduce infection rates, and these often continue to apply today. Some countries, where the immediate impact of the crisis has receded, are moving to a second phase, seeking to ensure that further outbreaks do not occur while restarting economic activity, and strengthening resilience to outbreak-risk. Many other countries are currently experiencing the initial phases of the health crisis and the need for containment and mitigation measures is expected to continue.

The containment and mitigation measures have had sudden and profound economic impacts. The health-triggered crisis has led to both supply and demand side shocks (Guerrieri et al., 2020^[2]). These measures have reduced production, creating shocks to supply, and coupled with the overall health crisis they have reduced business and household demand. OECD estimates suggest that the containment and mitigation measures could lead to an initial decline in economic activity of around 25% in some countries, and consumer spending falling initially by about one third - these are rough indications of the direct effects of the measures in a context of very large uncertainty about the economic impact (OECD, 2020^[1]). For each month of containment, an equally rough calculation suggests that there could be a loss of 2% of annual GDP.

Uncertainty about the development of the pandemic is large. There are uncertainties with respect to the actual number of persons who are currently infected with the virus and those who have been previously infected and recovered from it. Evidence on the effectiveness of containment and mitigation measures is based on data for previous epidemics such as influenza, but the actual impact of containment and mitigation measures also depends on the timing and strength of implementation which may vary across countries (OECD, 2020^[3]). Intense efforts are ongoing to expand the capacity to test, track and trace, to improve treatments for those with severe symptoms, and to develop a vaccine.

The human and economic costs of the virus are already enormous, and could increase further. Where medical solutions through improved treatments, expanded testing, reduced caseload, or expanded hospital places become available, it may be possible to relax containment and mitigation measures gradually. However, there is substantial uncertainty about the outcomes of these efforts. In the absence of progress on improving health outcomes, decisions on de-confinement will involve increasingly difficult trade-offs, and may require the reinstatement of containment and mitigation measures, or partial de-confinement policies. It also remains to be seen how consumer and business behaviour will evolve when containment and mitigation becomes less tight. Policymakers need to clearly identify and communicate their objectives and act to maintain confidence in the face of these uncertainties.

1.2. Policy objectives in relation to the pandemic

The immediate policy challenge is to support efforts to reduce the health crisis. This requires improving the funding and functioning of health care systems as quickly as possible by increasing intensive care capacity and the supply of protective materials, as well as supporting the efforts to develop tests,

treatments and a vaccine. The stronger the efforts to tackle the virus, the more limited the impact of the virus and the associated economic impacts are likely to be (Eichenbaum, Rebelo and Trabandt, 2020^[4]).

The second challenge is to limit the adverse effects from containment and mitigation measures on households and businesses. This means ensuring that the economy is put on idle but does not break down while societies protect the most vulnerable and adapt to the presence of the risk posed by this virus.

A third challenge will be to support economic recovery and ensure that the recovery from the crisis is as swift as possible. Carefully timed, sufficiently broad and appropriately sustained stimulus programmes could be considered.

A final challenge is to strengthen the resilience of economic and health systems. This includes the need to strengthen the ability of health systems to respond to epidemics early, considering increased use of rapid response mechanisms, e.g. automatic stabilisers, to cushion economic shocks, and supporting the resilience of supply chains.

1.3. Policy responses

This note offers suggestions to governments on how tax policy can help support economies through the crisis. These suggestions are structured along a schematic framework – see Figure 1.1 – of how the pandemic and policy responses may evolve, with a focus on tax policy. Countries confronted with a virus outbreak take containment and mitigation measures, where the aim is to halt the outbreak. This is followed by mitigation policies, where the goal is to slow down the spreading of COVID-19. Containment and mitigation often involve imposing strong constraints on social and economic activity, including confinement, social distancing and lockdowns. This phase is temporary, with the length adapted as needed to keep intensive medical care needs in line with capacity as much as possible.

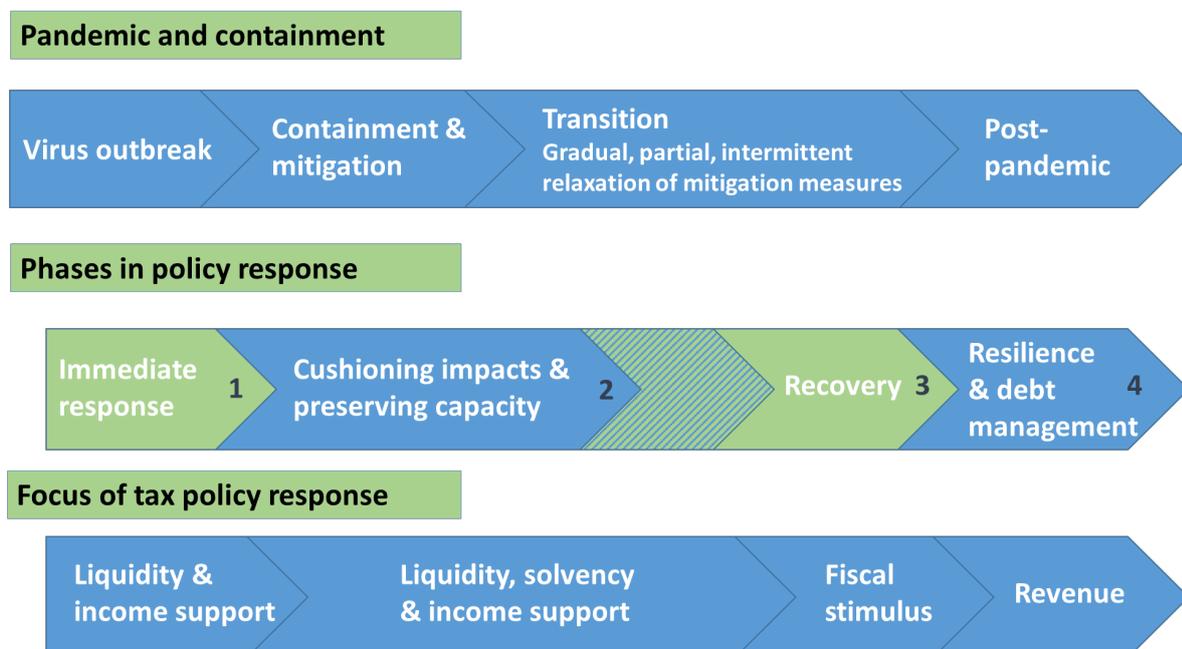
Containment and mitigation could be followed by a potentially long transition phase. In this phase, the relaxation of the measures could be gradual, e.g. differentiated by type of activity, or partial, e.g. depending on location or demographic. While economic activity would gradually be allowed to resume, continued restrictions could continue to apply for specific sectors, e.g. tourism and hospitality. It could also be intermittent, i.e. relaxed and then tightened again as renewed outbreak risks rise. Containment and mitigation ultimately will give way to a post-COVID-19-pandemic phase, in which awareness of pandemic risks will be heightened.

Against this background, four broad policy phases can be observed or anticipated. The initial response to the outbreak (Phase 1), focussing on liquidity and income support, is anticipated to evolve gradually into a more sustained effort to reduce the adverse impacts of containment and mitigation (Phase 2, which starts during containment and mitigation, and continues into the transitioning out of containment and mitigation). This is expected to shift gradually towards recovery, which could to a degree be simultaneous with Phase 2 as different parts of the economy transition out of mitigation at different speeds (Phase 3), while noting that in some instances containment and mitigation measures may need to be reinstated. Ultimately, once economies have recovered, a shift towards restoring public finances can be anticipated, during which there may be renewed attention for strengthening resilience (Phase 4). These phases partly overlap, and may vary across countries. The framework may facilitate sequencing policy responses as circumstances evolve. The tax policy priorities and instruments in each phase are discussed in the following paragraphs.

In Phase 1, the initial response, tax systems play a key role in quickly delivering financial support to businesses and households. However, tax policy needs to be part of the overall policy package that combines tax, spending, health, financial and monetary policies. As Section 2 of this paper shows, countries have acted forcefully to limit the hardship caused by the direct effects of containment and mitigation measures and to allow economic activity to resume quickly. Short-term fiscal, monetary and

financial policies have focused on maintaining business liquidity and supporting household income. The policy mix has varied depending upon the country-specific policy architecture, including the strength of automatic stabilisers.

Figure 1.1. Schematic policy phases during and after the pandemic



Source: OECD

In Phase 2, as containment and mitigation persist, broader and more sustained tax policy responses will be required. Tax policy should continue to focus on limiting hardship and maintaining the ability for a rebound. This phase calls for fine-tuning and potentially expanding the set of policies already implemented. On the business side, this includes adapting to the changing nature of risk, notably from liquidity- to solvency-risks: the longer lockdowns remain in place, the greater the strains on firm balance sheets may become even if liquidity support is provided. Instruments can include deferring tax payments, which can be similar to interest-free loans, and some countries are going further by waiving social security contributions and selected taxes, or taking over wage payments. Section 3 provides further suggestions. Strengthened support to households will also be critical to help them cope with greater risks of job and income loss, as the crisis continues.

Phase 3 is about recovery, where fiscal stimulus may be needed to support investment and consumption. The build-up of corporate and household debt, increasing business closures and unemployment, and increasing economic uncertainty may reduce future investment and consumption. Where the recovery is anaemic, there may be a case for maintaining expansionary fiscal policy for a sustained period to stimulate broader consumption and investment, and build confidence. As mentioned above, the transition from Phase 2 to Phase 3 will most likely not be linear and smooth, with containment and mitigation measures being removed only gradually. This increases the risks of heterogeneous effects across firms and households. Supply shocks may also persist if the pace and the extent of relaxation differ across countries or regions, which would in turn reduce productivity. Section 4 discusses tax policy approaches and tools to provide stimulus and support recovery as needed.

Stimulus needs to be carefully timed and well targeted. In transitioning towards stimulus, the removal of the short-term measures introduced in the containment phases should be done carefully and gradually,

taking into account how different firms and households may have been impacted differently. . Fiscal action should also learn the lessons from the global financial crisis (GFC), where fiscal stimulus was too limited in many countries that had room to increase it, and turned contractionary too early, unnecessarily lengthening the crisis and worsening debt positions. Stimulus may need to be adapted if supply bottlenecks remain or if certain sectors face a particularly strong rise in demand.

Policies must match countries' specific circumstances and there will be no one-size-fits-all responses. In particular, developing countries may face specific challenges given their weaker healthcare systems and their more limited fiscal space. Whilst at the international level low income and low capacity countries especially have struggled to benefit from the international standards and instruments developed in recent years. In the short term, resource-rich countries may find their economic and fiscal situation worsened by recent oil price shocks. Thus, policy priorities as well as the room for policy response will differ across countries. Whilst most policy differentiation will take place at the domestic level, there may also be scope for some differentiation at the international level, where low income and low capacity countries may benefit from additional measures.

Policy coordination is key to an effective response. One lesson from the GFC is that policy action can have positive or negative externalities across countries. Economic support by some countries can create positive feedback loops through trade and investment links, providing a boost to the global economy. By analogy, there could be negative feedback loops through debt markets where countries in tight fiscal circumstances take expansionary fiscal action by themselves. There is thus a case for those countries with most room to act strongly to limit negative international spill-overs.

In Phase 4, attention could shift to tax policy to help restore public finances. The financial strain on governments resulting from the support measures provided to businesses and households in earlier phases may be considerable. Once economies have recovered, countries may need to consider ways of raising revenues to restore long-term fiscal sustainability and fund public investments to strengthen the resilience of health systems, address distributional concerns and other longer-term risks, e.g. to counter climate threats. However, raising revenues will have to be timed and carried out carefully to be consistent with growth, inclusiveness and sustainability objectives. Some options are discussed in Section 5.

1.4. Outline of the report

Section 2 takes stock of the short-term tax and fiscal measures that countries have introduced in response to the COVID-19 crisis. It covers OECD and G20 countries, as well as non-OECD non-G20 developing and emerging economies. **Section 3** looks into how the short-term measures perform and could be adapted, providing guidance on further measures that governments could consider as the crisis and containment persist. **Section 4** examines policy measures that might be needed to ensure economic recovery after the health crisis abates and the containment and mitigation measures are removed, focusing on fiscal stimulus and strengthening resilience. Finally, **Section 5** addresses financing considerations and outlines options that could be explored on how governments can raise revenues once the economic and health crisis has passed.

2. Taking stock of recent measures

This section takes stock of the short-term tax and fiscal measures that have been introduced to date in response to the COVID-19 crisis. It covers OECD and G20 countries, as well as non-OECD non-G20 emerging market and developing economies, based on a [database](#) compiled by the OECD on tax and broader fiscal policy responses to the crisis.¹ Section 2.1 provides an overview of the short-term measures introduced so far. Section 2.2 describes the types of measures that have been put in place to provide immediate support to businesses. Section 2.3 gives an overview of the measures introduced to support households. Section 2.4 discusses the measures that have been aimed at supporting investment and consumption. Section 2.5 concludes with measures to support the healthcare sector's response to COVID-19.

2.1. Overview of short-term measures

Countries up to now have focused on emergency responses to the crisis

The measures introduced by countries up to now have focused on cushioning the immediate impact of the crisis on businesses and households and maintain economic capacity. The fiscal packages have very similar objectives across countries: they aim to cushion households and businesses from the worst impacts of the containment and mitigation measures and to ensure that households and businesses are able to resume economic activity as quickly as possible when the worst of the healthcare crisis has passed. For businesses, this often means providing liquidity to help them stay afloat. For individuals, the priority has been to provide income support to the most directly affected households. A number of countries have also introduced measures to enhance the functioning and funding of the healthcare sector. These rapid responses may sometimes have been introduced based on the assumption that containment phases would be shorter than what is presently unfolding. Most of the measures introduced have taken effect immediately and are time-bound.

While these measures are often referred to as “fiscal stimulus” measures, they are better thought of as emergency, or initial, responses. A traditional fiscal stimulus package to boost the economy by encouraging investment and consumption would be an ineffective emergency response in current circumstances given the policy restrictions imposed upon economic activity, and might encourage the spread of the virus in some countries where social distancing measures or lockdowns are harder to implement.

There have been similarities as well as differences between fiscal packages across countries. The measures introduced to support businesses have been fairly similar across countries, with a strong focus on tax payment deferrals. The introduction or expansion of short-time work schemes has also been common. There have been more significant differences across measures to support households. For instance, the United States is providing direct cash transfers to low and middle-income households, while many European countries have expanded income support by simplifying access to paid-sick leave and unemployment benefits notably for non-standard workers, and extended support for families with children. Developing and emerging countries, which have so far been less directly affected by the pandemic, and where fiscal space is lower, have been less active in fiscal policy measures. Social assistance measures

¹ The information has been collected through delegates from the Inclusive Framework on BEPS and delegates to Working Party No.2 on Tax Policy and Statistics and WP2 No.9 on Consumption Taxes of the Committee of Fiscal Affairs. The OECD Centre for Tax Policy and Administration will continue to update the database regularly.

(including cash transfers) are much more common than social insurance or short-time work schemes. A number of developing countries have also introduced tax payment deferrals.

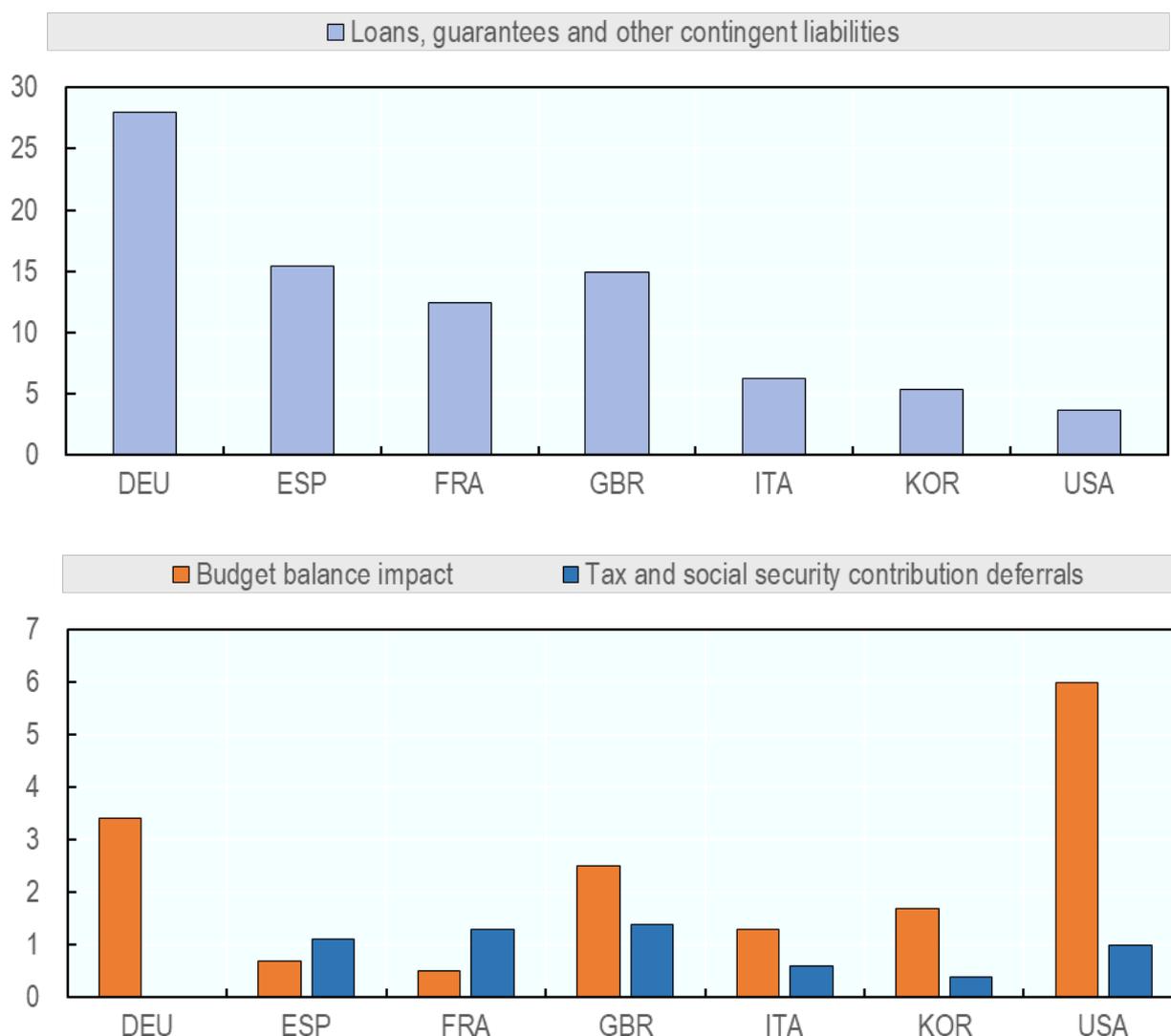
Fiscal packages differ in size across countries, but most are significant

There are large variations in the size of fiscal packages, but some countries have taken unprecedented action. The size of fiscal packages varies across countries. Figure 2.1 shows that particularly significant packages have been introduced in Germany, the United Kingdom and the United States. The budget effects of different types of measures also varies widely. For instance, some measures involve permanent losses, even if only for one year (e.g. short-time work schemes). Other measures will likely have a temporary impact on budget balances (deferrals, filing extensions, loss offsets) as deferred taxes should be expected to be paid later on. Finally, state loans and loan guarantees, which appear to be the most significant measures in overall fiscal packages, do not represent a direct fiscal cost. However, they create contingent liabilities which, in some cases, could turn into actual expenses either in 2020 or later.

These cost estimations do not account for the longer-term tax revenue impacts of the economic shock. The estimates focus on the revenue costs of the short-term relief measures, and do not take into account the lower revenues that will be collected from taxes as a result of the crisis, nor the costs of the fiscal stimulus measures that may be introduced once the pandemic is under control. In addition, the revenue impacts of the measures will depend on their take-up rate, which may be more significant than initially anticipated as the crisis persists. Some measures may also be extended if the economic situation does not improve or if the healthcare crisis continues. The current cost estimates therefore do not capture the full tax policy challenge ahead, which will also depend on the evolution of GDP and key aggregates. Overall, the fiscal packages will very likely have significant implications for public budgets and debt levels, although their impact will vary across countries (see Section 5).

Figure 2.1. Estimated scale of fiscal packages in response to COVID-19 in selected countries

As a percentage of GDP



Note: Shows official estimates, when available, of financial help included in emergency packages announced by governments in response to the COVID-19 crisis, as of 31st March. In many cases, they are highly uncertain due to an unknown duration of the crisis and take-up of various programmes by the private sector, and may not be comparable across countries. Tax and security contribution value for Germany is zero.

Source: OECD compilation based on official estimates

2.2. Support measures for businesses

The main priority for countries has been to support business cash flow

The majority of short-term measures in OECD and G20 countries seek to ensure that businesses have sufficient cash flow. Many businesses are experiencing a sharp decline in liquidity, hindering their ability to pay for wages, rents, intermediate goods, interest on debt, and taxes. Thus, many measures have focused on alleviating cash flow difficulties to help avoid escalating problems such as the laying-off of workers, temporary inability to pay suppliers or creditors, and, in the worst cases, closure or bankruptcy.

Cash flow issues can also cause the failure of connected businesses through a domino effect. Overall, around half of the measures reported by countries have been aimed at enhancing business cash flow.

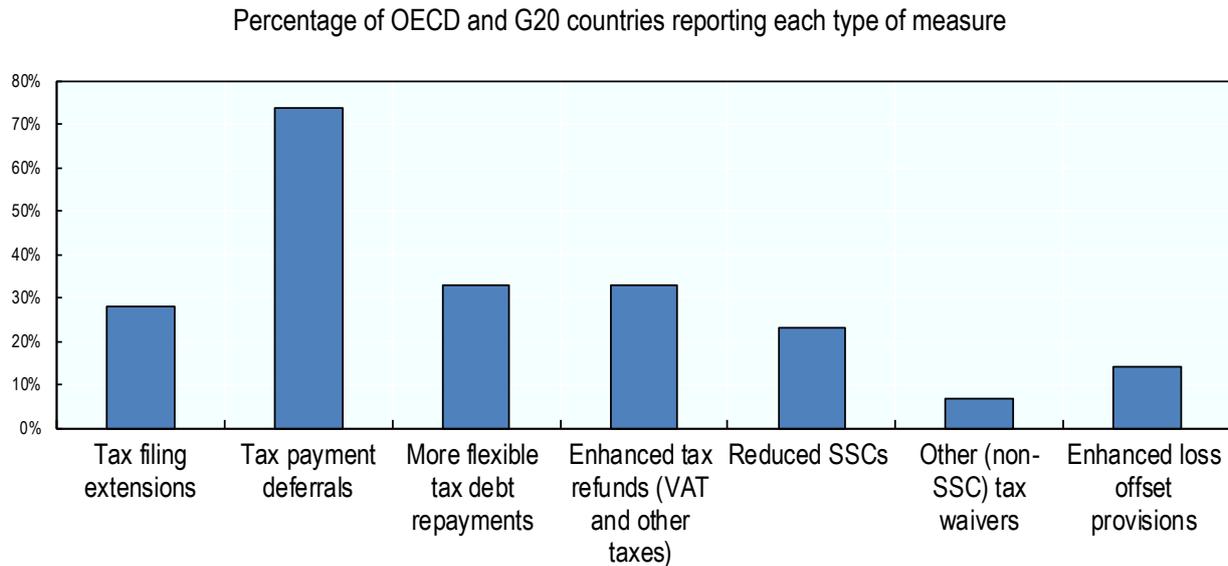
Cash flow support has been provided through a mix of tax and non-tax measures. Regarding non-tax measures, the most common instrument among OECD and G20 countries has been loan guarantee schemes, where the government guarantees all or part of the value of bank loans granted to eligible businesses (see Figure 2.2). Other measures have included small interest-free loans and cash grants. These schemes typically target small businesses or businesses in the most affected sectors. Other non-tax measures include the deferral of payments of non-wage business costs such as rent or interests (e.g. the Slovak Republic, Sweden, and the United States).

The most common type of tax measure to enhance business cash flow among OECD and G20 countries has been the deferral of tax payments. Three quarters of OECD and G20 countries have introduced deferrals of tax payments. These measures generally apply to taxes that require frequent (monthly or quarterly) payments. Tax deferral measures have generally been introduced for advance corporate income tax (CIT) or personal income tax (PIT) payments, value added tax (VAT) and social security contributions (SSCs). There are also a number of cases where property tax payments have been deferred. More than a quarter (28%) of OECD and G20 countries have also introduced measures to provide business taxpayers with additional time to file tax returns. This may be particularly helpful where taxpayers require the assistance of intermediaries or specialised staff and systems to file returns.

Changes to loss-offset provisions have been another important tax policy tool. Some countries have introduced or have announced measures allowing loss carry-back for the 2020 tax year, which will allow taxpayers to carry back their 2020 tax losses against profits earned in previous fiscal years (the Czech Republic, Norway, Poland, and the United States). Other countries are increasing the loss-carry forward period for losses incurred in 2020 (China, the Slovak Republic).

A few countries have introduced measures that will reduce the tax burden on businesses during the health crisis. These measures have focused on tax categories where the tax base does not vary with the immediate economic cycle, which therefore could be unduly punitive for some businesses facing sharp losses in revenue. The most common type of waiver has been related to social security contributions, with about a quarter of countries introducing such measures. Other common examples have been waivers of property taxes and presumptive taxes for small businesses and, in some cases, reduction of water usage taxes or vehicle taxes. Italy granted a tax credit for workshops and shops amounting to 60% of rental fees related to the month of March 2020. A few countries have also waived specific levies on tourism and airline companies, and some have reduced or exempted inputs used in certain sectors (including air transport, tourism, and manufacturing) from import taxes.

Figure 2.2. Main tax measures to support business cash flow in OECD and G20 countries



Source: OECD Database on Tax Policy Responses to COVID-19.

Other measures have focused on tax administration. A common measure, introduced in a third of countries, has been the acceleration of tax refunds (VAT and other taxes) where taxpayers are owed money. More flexible tax debt repayment plans were also introduced in a third of countries. Less common measures have included lifting the threshold for access to VAT simplification (e.g. Korea) and increasing the threshold for income tax prepayments (e.g. New Zealand).

The degree of policy targeting varies across countries, sectors and businesses. In some countries, the measures are available to all firms. In other countries, the measures are granted to specific sectors (e.g. tourism, commercial air travel) or to companies that have experienced a significant drop in revenues. This latter condition typically needs to be proven by the taxpayers to the tax authority. In a few countries, the relief is granted on a case-by-case basis (i.e. the business has to explicitly ask for the support). Finally, there are countries that, instead of targeting the sectors or businesses that have been most affected by COVID-19, target small and medium sized enterprises (SMEs) or self-employed businesses as it is expected that these businesses will face higher liquidity constraints than others.

In non-OECD, non-G20 emerging market and developing economies, the most common type of measure has been tax payment deferrals. They accounted for 45% of the total number of measures reported by non-OECD non-G20 developing and emerging countries. Tax filing extensions and more flexible tax debt repayment plans have also been common. Tax waivers, particularly targeted at the tourism sector, have been introduced in a few countries (e.g. Cambodia, Kazakhstan, and Uzbekistan).

Many countries have introduced measures to help businesses keep their workers

Among OECD and G20 countries, many countries have introduced, extended or expanded eligibility for short-time work schemes. A major concern of the current crisis is the threat of considerable job losses. Many countries are helping businesses retain their workers by introducing or enhancing the generosity and availability of short-time work schemes (OECD, 2020^[5]). These measures typically provide public income support to workers whose working hours have been reduced or who have been temporarily laid off, but where firms maintain their contract with an employee during the period of the short-time work scheme or the suspension of work. This is intended to allow employers to hold on to workers' talent and experience and enable them to quickly ramp up production once economic conditions recover. The

generosity of short-time work schemes varies widely across countries, with particularly generous schemes in many European countries. They typically cover a certain percentage of the wages and are often capped.

A few countries encourage labour retention by expanding unemployment benefits to those who are temporarily unemployed or working reduced hours. These benefits are conditional upon employees remaining employed by their employers. For those employees, the employer can request unemployment benefits (e.g. Iceland, Netherlands).

As is the case for liquidity support measures, in some countries, these measures are broadly applied, while in others they are more targeted. In a number of countries, the measures are targeted at small employers. In other countries, these measures are targeted at businesses in the most severely affected sectors.

Short-time work schemes and other forms of wage subsidies for employers have been far less common in countries outside of the OECD and the G20. This may be related to their high cost and to limited experience with such policies. There are, however, exceptions, including Peru and Thailand. For instance, Peru announced a wage subsidy paid to qualifying employers equal to 35% of the payroll for workers with gross monthly salaries of less than approximately USD 430.

2.3. Support measures for households

Measures to enhance households' cash flow

A number of countries have introduced measures to enhance households' cash flow. Several countries have extended tax filing deadlines, tax payment deferrals or extended payment plans for households unable to make their tax payments. These measures are provided mostly for personal income taxes, but in some countries pertain to property taxes. In some cases, tax payment deferral measures are targeted at low-income households or property below a certain value (e.g. Chile). Other tax measures have included accelerated refunding of excess payments from personal income tax, and flexible arrangements for tax debt repayments (sometimes targeted towards lower incomes). Non-tax measures have included the early release of superannuation in Australia, the deferral of interest payments on mortgage debt for primary residences (e.g. Spain), and the deferral of payments of utility bills.

Most household support has taken the form of increased cash benefits for vulnerable households

Most countries have introduced measures to provide income support to households, generally through enhanced cash benefits targeted at the most vulnerable households. Many OECD and G20 countries have social protection systems in place that provide income replacement for households affected by sickness, job loss or a drop in earnings. These systems cushion income losses for many workers and act as automatic stabilisers. Given the severe nature of the crisis, many countries have taken steps to expand these systems over the last weeks, to cover groups or cases that were not covered previously (independent workers, families with unexpected caring needs), to simplify access and make increase levels of protection.

Support has largely been provided through direct transfers rather than through the tax system. While the choice between providing income support through direct cash transfers or through the tax system will typically depend upon the architecture of each country's tax and transfer systems, most countries rely primarily on transfers to redistribute income. Given the immediate need to provide financial support to the most vulnerable households in the crisis, transfers are likely to be preferred as payments can be made more quickly and may be easier to target.

The households targeted and the design of these measures vary across countries. In some countries, cash transfers are specifically targeted to those households that are directly affected by the virus (e.g. sick workers) or its immediate economic consequences (e.g. temporarily unemployed workers). Some measures specifically provide support to the self-employed (e.g. Italy, Lithuania, and the United Kingdom). Other countries are providing cash payments to low-income households more broadly, as these may be the most severely affected by the crisis and will likely have less savings to draw from to support themselves. Chile introduced a cash bonus for people without formal work, which is expected to benefit two million people. Some benefits have also been aimed at families (e.g. through increases in child benefits). In some cases, benefits are provided as one-off payments, while in other cases they are provided as temporary increases in regular benefits. New Zealand made a temporary change to its in-work tax credit by removing the hours' threshold, so that workers who see their hours in work reduced below the hours' threshold will still be able to claim the payment.

In non-OECD non-G20 emerging market and developing countries, some countries have reported cash transfers for households. Some have been targeted at vulnerable households (e.g. Kenya), while others are being distributed more widely to low-income households (e.g. Peru). Additional measures have included a 30% reduction in PIT rates for individual entrepreneurs directly or indirectly engaged in the tourism sector in Uzbekistan.

Many countries have expanded access to paid sick leave and unemployment benefits

Around 30% of OECD and G20 countries have expanded sick leave benefits. Some countries have introduced less restrictive access conditions (e.g. elimination or reduction of the waiting period before receiving benefits, or removing the need for medical certificates) and expanded eligibility (in particular to self-employed workers, but also to employees who self-isolate) (OECD, 2020^[5]). In some countries, governments are covering a larger portion of benefits (reducing the burden on employers, who usually cover the initial period of sick leave) (OECD, 2020^[5]). Where there are no generally applicable obligations for employers to provide sick leave, new requirements are in some cases being imposed on employers (e.g. all New York State employers must now provide sick leave to employees who have been subjected to mandatory or precautionary orders of quarantine or isolation due to COVID-19).

More than a third of OECD and G20 countries have expanded the coverage of unemployment benefits. A common measure in response to the crisis has been to expand the coverage of unemployment benefits to self-employed workers. Workers in non-standard forms of employment (e.g. temporary, part-time or self-employment) are often significantly less well protected against the risk of job or income loss than workers in standard forms of employment (see Section 3.3). Many countries were already exploring how to shore up access to out-of-work benefits for non-standard workers before the crisis, and many have done so on a temporary basis in response to the crisis. Some countries have also expanded unemployment benefits to workers in quarantine.

On the other hand, emerging market and developing countries outside of the OECD and the G20 have not reported any expansions in sick leave or unemployment benefits. This may be explained by the fact that these countries tend to have less well-developed social protection systems and primarily rely on cash transfers to provide income support to households.

2.4. Measures to support investment and consumption

A limited number of OECD and G20 countries have introduced measures to support investment and consumption. Investment support measures have included temporary increases in thresholds for low-value asset write-offs (Australia, New Zealand) as well as accelerated depreciation (e.g. Australia).

Indonesia reduced corporate tax for manufacturing companies in 19 sectors. Italy introduced a corporate tax credit for sanitation costs in workplaces. A few countries have also attempted to support consumption through temporary reductions in standard and reduced VAT rates (e.g. China, Cyprus², and Norway).

Measures to support investment and consumption have been more common in countries outside of the OECD and G20. For instance, Kenya reduced its corporate income tax rate as well as its top PIT rate from 30% to 25%. In order to support consumption, Jamaica and Kenya lowered their standard VAT rates. A few countries also lowered their reduced VAT rates (e.g. Moldova and Kazakhstan).

More generally, investment and consumption support measures were often introduced in countries which were less severely affected or at a time when the crisis was still at an early stage (e.g. prior to the imposition of strict containment and mitigation measures). In countries where lockdowns have been implemented since the introduction of the measures, their immediate effect may be largely blunted (see Section 3.1).

2.5. Measures to support the healthcare sector's response to COVID-19

Beyond containment and mitigation measures, countries have adopted responses to strengthen patient care and reduce the pressure on health systems (OECD, 2020^[6]). Several OECD and G20 countries have introduced measures to facilitate imports of medical inputs to combat COVID-19. A common measure has been the temporary removal of import duties on medicines and health devices and equipment. These exemptions are often accompanied by measures to simplify and expedite customs clearance procedures.

Some OECD and G20 countries have also provided preferential tax treatment to stimulate health-related spending and investment, including measures to safeguard the deduction of input VAT on items donated by businesses (e.g. Belgium, China) and the full or increased deductibility for CIT and PIT purposes of donations made by enterprises or households to healthcare institutions (e.g. Belgium, China, Italy). China has also introduced specific CIT incentives for enterprises engaged in producing key supplies related to COVID-19 protection and containment. This includes 100% expensing for investment in equipment to expand production capacity. In contrast to standard tax rules, there is no limit to the scale of the investment such that larger scale investments also benefit from immediate expensing. China also introduced personal income tax (PIT) exemptions for bonuses and subsidies paid to medical staff working in combatting COVID-19.

Measures to support the healthcare sector have been common in non-OECD non-G20 emerging market and developing countries. Most of the measures have consisted in removing or lowering import duties and other taxes on medical equipment. Additional measures have included special allowances to medical personnel and immigration staff (Malaysia) and lump-sum payments to healthcare workers that test positive for COVID-19 (Moldova).

² Note by Turkey

The information in the documents with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union

The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in the documents relates to the area under the effective control of the Government of the Republic of Cyprus.

3. Policies through containment

This section discusses how tax policy responses could evolve as containment phases continue. Governments will need to continue monitoring and adjusting policies to evolving circumstances. This Section offers suggestions on how to approach this challenge. Section 3.1 recalls policy challenges and the role of tax policy, in conjunction with other policy areas. Section 3.2 identifies some of the lessons learned from the measures that countries have adopted to date. Section 3.3 considers further measures to support businesses and households as the crisis and containment and mitigation measures persist. Section 3.4 touches upon administration and implementation challenges.

3.1. Challenges and the role of tax policy during containment

Economic and social impacts of prolonged containment phases

Prolonged containment and mitigation measures cause deeper negative impacts on businesses and households. They may also make it harder for economic activity to return to previous levels once these measures are removed. Job losses could significantly increase if containment phases are prolonged. Firm bankruptcies could result in losses of firm- and worker-specific capital (i.e., informal knowledge, practices and capacities that reside in a network of entrepreneurs, employers, employees and customers), which would take time to replace (Fujita and Moscarini, 2017^[7]). Defaults on mortgages and consumer loans by households in financial distress and defaults on business loans due to folding businesses, also create a risk that a crisis with origins in the real economy spreads to the financial sector (Guerrieri et al., 2020^[2]). This contagion risk can be mitigated through early and significant policy action. As with the virus itself, action before the worst effects are apparent is better than action once effects have already materialised.

Developing countries may be particularly impacted by the crisis. Investment in developing countries has been withdrawn at a faster rate than during the GFC (UNCTAD, 2020^[8]). High population density and large informal sectors may reduce the efficacy of containment and mitigation measures. Developing countries also often have weaker health and social protection systems, exacerbating both the health aspects (where the population is unable to take time off work or to access adequate medical care) and the economic impacts, particularly on households. Higher levels of public debt, especially in foreign currencies, undermine the use of fiscal and monetary policy to support the domestic economy. Many emerging markets have seen sharp currency depreciations in recent weeks, which exacerbates these pressures. Developing countries that have a high share of revenues from commodities and natural resources will be particularly affected if the recent decline in global demand and prices persists, while those reliant on tourism will be affected by the collapse of international travel. Remittances may also be impacted by prolonged containment and mitigation measures in developed countries.

There is significant uncertainty about the length of time it will take to bring the health crisis under control. In best case scenarios, a combination of improved treatments and testing, expanded healthcare capacity, and suppression of the existing outbreak could reduce the duration of containment and mitigation measures and the associated suppression of economic activity. However, if the severity of the virus outbreak is worse than anticipated, or improvements in treatments or testing do not materialise, the reduction in economic activity may be more severe. Such a prolonged period of severe economic disruption would be unseen in recent history.

Policy priorities

Strong action now can save costs over time. Support measures to businesses and households are important to cushion the immediate impacts of the crisis, but also to help safeguard the capacity of economies to rebound as soon as the crisis abates (Guerrieri et al., 2020^[2]). Where fiscal space is available to governments, the costs of inaction may be greater than the costs of action. Fiscal action should also learn the lessons from the GFC, where fiscal stimulus was too limited in many countries that had room to increase it, and turned contractionary too early, unnecessarily lengthening the crisis and worsening debt positions (Blanchard and Leigh, 2013^[9]; Romer, 2011^[10]). Substantial action now can strengthen confidence and reduce the likelihood of needing further tools.

Efforts to reduce the scale of the health crisis are of first-order importance. To support these efforts, governments may wish to consider providing expanded expensing or depreciation allowances or other tax incentives to businesses in support of health policy objectives. This could include efforts to expand research or manufacturing capacity in the development of tests, treatments or vaccines. Governments should carefully design these policies to ensure that companies already in these sectors do not receive windfall gains.

Tax policy needs to be coordinated with other policy levers, including healthcare policy, trade policy, social and labour market policy, financial and monetary policies. For example, in some countries, social spending may be more effective in providing financial support to households. Similarly, while tax policies can support business cash flow through targeted measures, managing corporate debt burden and access to credit for businesses are also important.

Fiscal policy also needs to be coordinated with monetary policy. Reactions by monetary authorities in the face of the crisis have been substantial and there may be a case for monetary authorities to support fiscal expansion. Many central banks have cut policy interest rates aggressively and have committed to buy large amounts of government bonds and private assets, along with implementing numerous measures to support liquidity in the financial sector and to boost bank lending to businesses and households via special programmes and the easing of prudential regulation. Interest rate cuts and large-scale asset purchase measures will help lower the cost of borrowing for governments, and for the private sector at large. Lower public debt servicing costs will stem not only from lower market interest rates but also from remitting central bank profits to fiscal authorities. As long as the remuneration of central bank reserves is close to zero, there will be minimal servicing costs on government debt held by central banks. Thus, to the extent that central banks keep government bonds on their balance sheets indefinitely, this part of government debt will be explicitly monetised (McCulley and Pozar, 2013^[11]).

If the crisis should risk undermining public debt sustainability, more explicit debt monetisation options could be considered. One possible arrangement could involve the central bank deciding on the timing, the duration and the amount of money created and credited to a government account, and the government deciding whether and on what to spend this money (Bernanke, 2016^[12]; Bartsch et al., 2019^[13]). Such a division of responsibilities would ensure that independent central banks remain responsible for maintaining stable inflation and that democratically elected authorities remain responsible for deciding on fiscal policy and the associated distributional consequences.

Monetary policy options are more constrained for developing countries, and will require international coordination (G20 Framework Working Group, 2020^[14]). While some have cut interest rates, the scope to raise public debt is limited for many countries; 34 Low Income countries were already at high risk of, or already in, debt distress in November 2019 (IMF, 2019^[15]). As many developing countries borrow in foreign currencies, domestic currency depreciates, often at a faster rate than during the GFC, will further exacerbate the challenges for debt financing, increasing the cost of servicing even existing debt (UNCTAD, 2020^[8]). Thus for many developing countries international action will be required to both provide additional financing, and to help reduce the debt burden.

3.2. Lessons learned from countries' tax policy responses so far

Countries have quickly introduced fiscal, monetary and financial policies, with many adopting a sequenced approach. The timing of countries' tax policy responses has generally been rapid. Some countries have proceeded step-by-step, progressively extending and expanding the initial relief packages as the situation has evolved, which seems appropriate given the high degree of uncertainty involved in the crisis.

Most of the short-term measures are temporary. This is in line with a sequenced approach, where policy responses are re-assessed regularly. Clearly signalling that measures are temporary also limit the risks of lobbying by pressure groups to introduce more permanent changes in the tax system that may not be desirable in the longer run. It may also be appropriate to have time-bound deferrals of filing and reporting obligations, not least to ensure that governments have the necessary data to monitor the ongoing impact of the crisis. Tax returns and tax reporting, including through e-invoicing systems, play an important role in assessing and managing compliance and revenue risks, but also in understanding which sectors are most severely affected and where support should therefore be prioritised. Where tax administrations choose to discontinue these deferrals for informational purposes, accompanying measures could be put in place to ensure that this does not generate heightened cash flow difficulties for businesses.

Most countries have adopted a broad approach, using a combination of fiscal and financial support tools (e.g. taxes, benefits, loan guarantees). Indeed, countries should consider the broad range of policy tools available to them in order to provide the most effective responses. Countries could benchmark their support measures against those of other countries on an ongoing basis and consider whether they are making use of the full set of policy levers available to them.

The objectives and design of the short-term measures supporting businesses generally appear appropriate. Providing liquidity support to businesses, in particular through tax deferrals, has been a priority in a majority of countries. Tax deferrals are particularly helpful in providing timely cash flow support when they are applied to taxes that are payable throughout the accounting year and within relatively tight deadlines such as VAT, payroll taxes, customs duties and excises.

Many countries have also introduced measures to help companies retain their workers, which proved to be effective policy responses during the 2008-09 recession. Indeed, OECD analysis (OECD, 2010^[16]) (Hijzen and Venn, 2011^[17]) shows that, in response to the 2008-09 recession, such schemes significantly reduced job losses while providing income support to workers on reduced working hours. The analysis also shows that it is important to attach clear and credible time limits to these measures to avoid locking workers into unviable jobs or companies, especially as the recovery gathers strength (OECD, 2010^[18]).

The need for income support to affected households has been rapidly addressed by many countries. Income support to households has been another critical component of countries' policy packages, often targeted at the most vulnerable and severely affected households (sick workers, unemployed and self-employed), although the level and type of targeting has varied across countries (see below). Many countries have also expanded sick leave and unemployment benefits to workers who are otherwise not protected. Such measures are particularly justified as non-standard workers have been significantly affected by the crisis and financial support may be necessary to encourage them to comply with containment and mitigation measures. Countries could continue to endeavour to target all impacted sectors of the population, including those that might not be usually well protected by social welfare systems.

Most of the short-term measures so far have been targeted to those households and sectors most affected, although the level and type of targeting has varied. Targeting support to taxpayers who need it most reduces the fiscal costs as well as avoids providing support to taxpayers who may not need it. It also implies that the amount of support that can be provided to those in need can be larger. However, tighter targeting implies that accessing support will be more complicated and more time-consuming. In the

short-term, when support is critically needed and when it may not be clear who is impacted the most, targeting can result in under-provision of support. The extent of targeting in different countries has also been in part linked to the design of their welfare systems. In countries with well-developed welfare systems, support in response to the crisis has been more closely targeted at those who have been most severely impacted and who are less well covered by provisions of the social protection systems in place (e.g. self-employed workers). In other countries, broader support has often been provided.

Policy makers should be careful to ensure that announced measures are effective and, where possible, well targeted. Unless investment tax incentives provide a strong steer towards production that is critically needed to address the health crisis (e.g. protective equipment, etc.), their main impact may be only after the crisis for most businesses. CIT rate reductions will provide the largest benefit to those businesses that are still making profits. VAT rate reductions are less effective given the heavily constrained consumption options, and may be difficult to roll back once they have been introduced, even on a temporary basis. There is also evidence that the impact of lower VAT rates on consumption and consumer prices may be short-lived. In cases where countries have made assistance available to businesses only upon request, the volume of applications has sometimes overwhelmed public administrations. Countries could endeavour to make support measures automatic and quick, especially for SMEs where awareness about availability of programs may be low. Using existing mechanisms and systems, rather than creating new ones will generally be preferred.

Some cash flow oriented measures could be further considered. Countries that have not yet introduced measures to support business cash flow could do so. Accelerated VAT refunds, more flexible VAT bad debt relief and a temporary extension of optional cash-accounting regimes can provide strong cash flow support to businesses and yet have only been introduced in a limited number of countries. These tools could be considered, although these measures should be implemented carefully to safeguard against increased risks of abuse.

3.3. Further measures to support businesses and households

While the health crisis persists, several existing measures could be extended or fine-tuned and new measures could be considered. For instance, as the crisis and containment phases continue, liquidity risks can turn into solvency risks for many businesses (see Figures 3.1 and 3.2 for background on the evolution of corporate and household debt in recent years), requiring the strengthening of existing policy responses or the introduction of new ones. The coverage of household support may also need to be revised as the repercussions of the health and economic shocks evolve. Policymakers should continue to respond with speed.

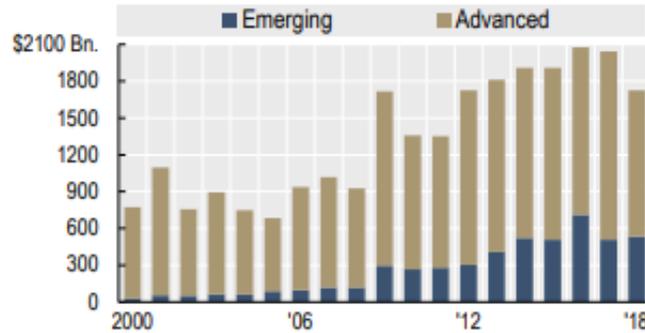
Further support measures for businesses

Consider revising support measures to businesses in response to greater solvency risks

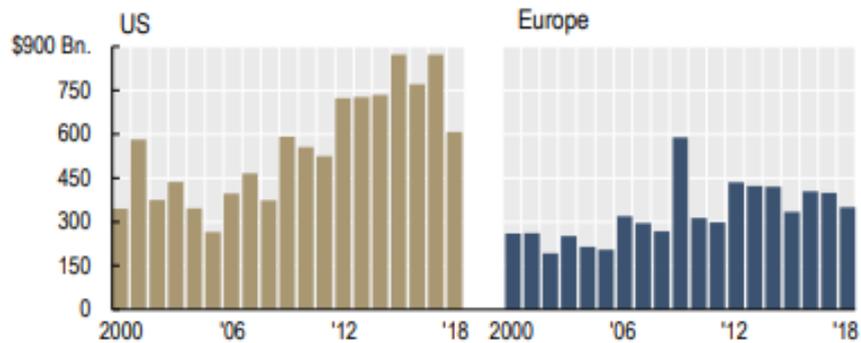
As the containment phase continues, solvency risks may become more prominent in addition to liquidity issues. Section 2 has outlined how many governments have supported businesses through the deferral of tax liabilities and other measures to increase cash flow. However, with extended strong reductions of consumer and business demand, many businesses are at risk of going bankrupt even in the presence of substantial liquidity support. The corporate tax system can be used to support business liquidity and solvency, through the deferral of tax liability, but also through reductions in corporate tax liability.

Figure 3.1. Global corporate debt levels have risen in recent years

A. Total Amount Issued Globally, (2018 USD, billion)



B. Corporate bond issuance by US and European companies



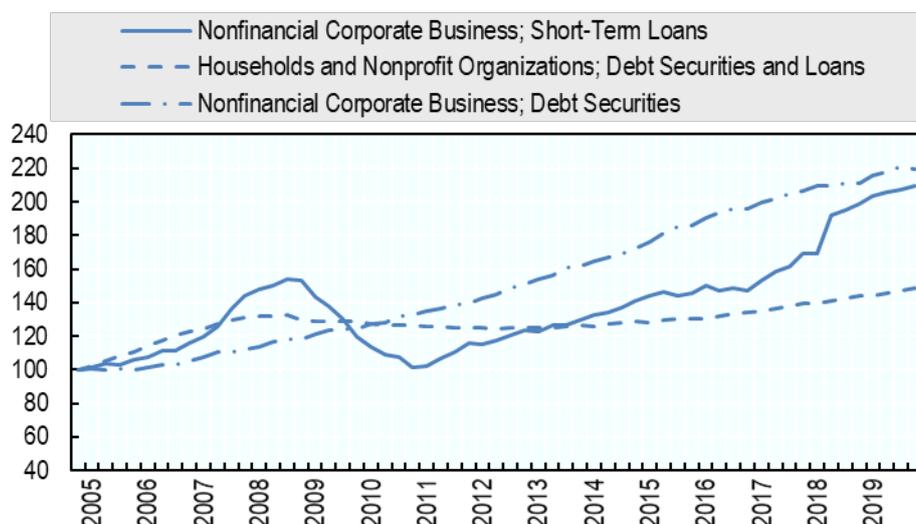
Note: The figures are based on the analysis of 83 842 unique corporate bond issues by non-financial companies from 114 countries.

Source: (Çelik, G. Demirtaş and M. Isaksson, 2019^[19]) OECD Capital Market Series dataset. <http://www.oecd.org/corporate/Corporate-Bond-Markets-in-a-Time-of-Unconventional-Monetary-Policy.htm>

Liquidity and solvency risks may differ across firms, being stronger for firms in sectors most affected by containment and mitigation measures as well as for those supplying intermediate inputs to these firms. SMEs may be less able to access bridging financing than large enterprises and may receive less benefit from the emergency actions taken by monetary authorities. SMEs are strongly present in the tourism and hospitality sectors, which have been hard-hit by containment and mitigation measures. They may thus be more at risk of their liquidity crises turning into solvency issues. Multinational enterprises (MNEs) may also face liquidity and solvency challenges, but they often have more cash reserves. The targeting of measures could focus on sectors most affected by shutdowns, with greater support for SMEs, and where the employment risks are largest.

Extended tax deferrals may be used to support business balance sheets. Unlimited tax deferrals – implying a shift in the timing of the tax liability without incurring any additional interest – are economically equivalent to interest-free loans to support businesses. Providing such support through the tax system rather than providing interest free loans through the banking system may be successful in targeting more firms at a faster pace. Tax administrations should also possess more relevant information (e.g. tax return files including financial and tax information from previous years) to help to ensure that more and the right firms are supported.

Figure 3.2. There is substantial household and short-term corporate debt in some countries



Note: Series are adjusted so that 100 = Q4 2004 to show percentage changes.

Source: St. Louis Federal Reserve. This figure refers to the United States only.

Cash flow support could be augmented by expanding loss-carry-back measures to target firms that are currently in a loss position. Expanding loss-carry-back measures, e.g., by extending time limits or increasing refund ceilings, could be particularly impactful due to the countercyclical effects of these measures. In addition, these measures have the advantage of targeting lossmaking firms that will typically not benefit from other tax measures such as rate reductions, deferrals or exemptions. For SMES it could be considered to allow losses to be offset against personal income of shareholders/directors to allow them to be used immediately. Loss-carry-forward measures will have a less immediate effect as the related tax benefits can only be realised if and when firms become profitable again. However, they could still have positive effects on investment decisions through their impact on expectations after the health crisis has passed. Extending cash flow support measures should nevertheless avoid storing up problems for the future, making it more difficult for taxpayers to return to normal if, for example, debts build up to unsustainable levels or deferred payments lead to severe cash flow problems at a later date.

Inventory valuation could be temporally adjusted to encourage MNEs to build up stocks of crucial intermediate inputs. Global value chains (GVCs) strongly rely on just-in-time supply of inputs, as inventories are a cost that needs to be minimised. They often also have little built-in redundancy, which may have increased vulnerability to interruptions or shortfalls of production in specific locations, as these can create significant disruptions across the entire production process. Building up inventories of crucial inputs and components can reduce the vulnerability of GVCs, thus making MNEs more resilient to future disruptions. This process can be incentivised by the corporate tax system by allowing firms to use more generous inventory valuation methods. For example, a move from valuation based on the first-in-first-out (FIFO) to the last-in-first-out (LIFO) method can create significant reductions in the tax costs associated with inventories; in a more uncertain macroeconomic environment, with potentially increasing inflation in the future, it would also decrease firms exposure to inflationary risks.

Temporary tax rate reductions or exemptions of some businesses from specific taxes could be considered. Such measures could be particularly relevant for tax bases that may not shift downwards with the crisis quickly, e.g., property taxes, turnover taxes, or presumptive taxes. This approach has been implemented in China as it has exited from the crisis (Huang et al., 2020^[20]). To contain revenue impacts, it may be beneficial to target these interventions to certain businesses. CIT waivers and rate reductions

would only benefit companies that are in a profitable position and thus have a corresponding tax liability to be paid; loss-making companies will not benefit. In view of their budgetary cost, targeting such measures will be crucial.

VAT measures to support business cash flow

Indirect tax measures could further relieve pressure on liquidity and reduce subsequent solvency risk. This is particularly important in respect of VAT, which may often be due before businesses have effectively received payment from their customers (e.g. at the time of invoicing). When the volume of payment delays or defaults escalates, businesses face growing pressure to pre-finance VAT on their sales that they have not, and may never receive, from their customers – thus further increasing cash flow pressures. Deferral of VAT payments, possibly complemented with temporary flexibility in VAT bad debt relief and greater access to cash-accounting regimes, could mitigate these adverse impacts. Even where businesses receive VAT payments from their customers, tax payment deferral is an efficient and relatively easy to monitor way of alleviating cash flow pressures.

Governments may also wish to consider targeted measures to defer payment of excise duties for the most vulnerable sectors, e.g. the hospitality sector. Targeting is important, notably to avoid unnecessary revenue losses for instance from granting excise payment deferrals to high-street chains, which may have captured a significant share of the consumption – including alcohol consumption – lost by pubs and restaurants and are less likely to have cash flow issues.

Accelerating VAT refunds could help to improve business cash flow, subject to careful limitation of fraud risks. While output VAT is falling for many businesses as a result of declining sales, the input-VAT on fixed costs keeps accruing. The latter may be significant as many businesses may have outsourced key functions or face payment obligations under longer term contracts. This is leading to growing amounts of excess input VAT credits, i.e. VAT incurred on costs and investment that cannot be credited against VAT collected on sales. This may generate spill-overs, with businesses potentially defaulting on their invoices to avoid the growing cost of non-refundable VAT, and defaults rippling through supply chains. Thus, governments could consider increasing their administrative capacity to accelerate processing of VAT refund claims, while limiting risks of refund fraud through risk-based compliance management. This could include capping the amounts of accelerated refunds or restricting them to taxpayers with a good compliance record.

Overall, tax measures to support businesses should consider a country's level of economic development. In many instances, reducing, exempting and deferring income taxes, social security contributions, or VAT is a key channel through which support can be provided to firms and households. However, where these taxes do not form a large part of the tax mix or where policy changes are constrained for legal or practical reasons, changes in other taxes may need to be considered, including payroll or excise taxes. Where countries face financing challenges, these policies should be carefully targeted to provide the best balance of economic support and fiscal sustainability. Developing countries that raise substantial portions of their revenue from CIT or VAT levied on foreign MNEs may wish to target support to the domestic sector and domestic SMEs or micro-enterprises in particular. This has the benefit of reducing funding pressures which may be more acute, while providing as much support as possible for the domestic sector.

Further support measures for households

The continuation of the crisis involves significant risks for households. Historic increases in unemployment are being experienced in many countries. Even where this is due to containment and temporary, labour market connections, once lost, take time to repair. Labour market matching is costly and slow, so that the decline of unemployment can be expected to be slower than its increase, as was the case after the GFC. Households where family members have been directly affected by the virus may face

deteriorating finances, in particular where social insurance is less expansive. This may, in turn, negatively impact the rest of the economy.

Different countries will need different policies depending on how containment and mitigation measures and restrictions to economic activity evolve and which risks they judge to be most acute.

This is especially the case if these measures need to be maintained for a longer period, or if they need to be reinstated after a period of time, and thus become more costly.

There is a case for expanded wage and income support from governments. Many governments have already put in place policies to this effect (see Section 2). Maintaining workers in their current jobs at reduced hours or reduced pay through short-time work schemes supports household spending, can potentially improve adherence to containment and mitigation measures, helps to maintain labour market attachment, and can limit hardship and economic contagion.

Social protection systems are softening households' income losses and helping to stabilise the economy. In most countries, unemployment benefits replace a large proportion of previous earnings for people who lose their jobs, and some countries have facilitated more timely access to those benefits or have increased their generosity (Section 2). If the crisis persists, in most countries, the unemployed will be gradually moved onto minimum-income benefits (social assistance), which are less generous but secure a basic standard of living. Countries should provide jobless benefit recipients with “active” employment support, supporting and requiring active job search. If the recovery is slow and labour demand remains depressed, public employment services should help workers productively use longer spells of unemployment to update and develop their skills by enrolling them in quality training.

OECD economies should anticipate that public expenditures on social benefits may have to remain high for a long period. This could be the case if the containment and mitigation phase lasts longer than anticipated, or if unemployment rates only decline slowly during the following recovery. High public social-expenditure levels may contribute to fiscal consolidation pressures, in particular after public-debt levels will have risen during the initial reaction to the crisis. During the GFC, some of the countries where unemployment rates rose most strongly saw themselves forced to pro-cyclically reduce access to benefits or cut benefit levels to curb expenditures. This deprived vulnerable households from much-needed income support, and prevented social safety nets from effectively fulfilling their role as automatic stabilisers (OECD, 2014^[21])

Short-term work schemes and other wage support policies can be effective for employees, but particular consideration could be given to non-standard workers and workers in the informal sector. These workers are particularly challenging to deliver support to as they may not always file tax returns, particularly where income levels are low or where informality is high (OECD, 2020^[5]). These workers are also at risk of violating containment and mitigation measures where financial situations are tight. In some countries, self-employed workers and informal workers have been brought within the scope of unemployment insurance and sick leave has been provided for self-employed workers, as these workers tend to receive less income support than other workers (see Figure 3.3).

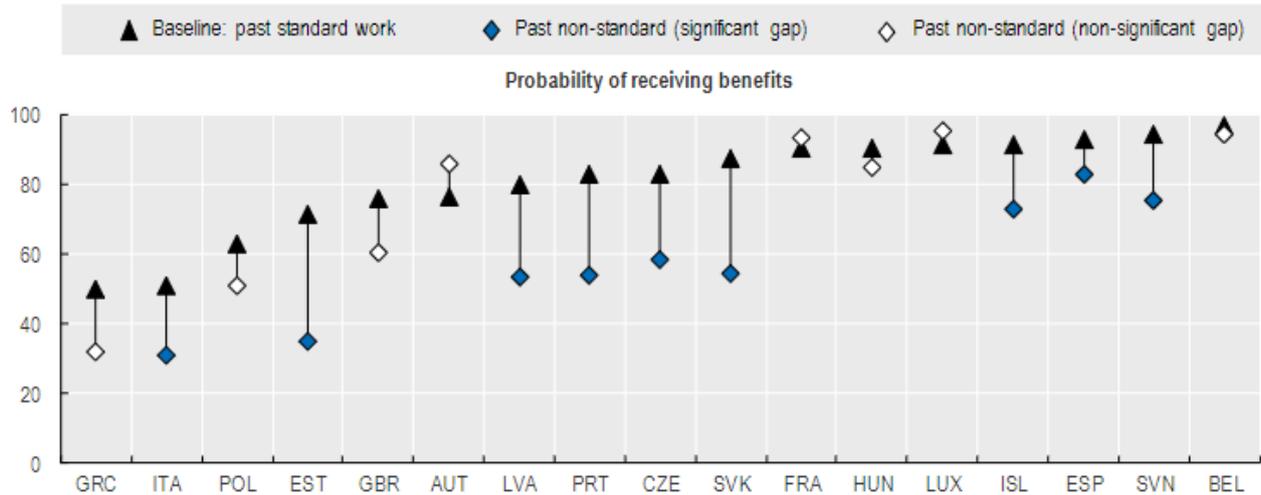
Countries that have taxes on mobile money and money transfers could consider waiving them temporarily (Steel and Phillips, 2020^[22]). The use of mobile phones for financial transactions is especially widespread in Africa, and has played a big role in reduce financial exclusion. In recent years a number of countries have also introduced taxes on such mobile money transactions. Waiving such taxes temporarily may help encourage the use of mobile money instead of cash, reducing the risk of infection from cash transactions. Some telecom companies have already agreed to waive their fees to reduce the physical exchange of money.

Reducing the costs of remittances could have an impact for many developing countries. Remittances are a vital source of financing in many countries, providing 3.5% of GDP in Africa in 2017 (more than both Official Development Assistance and FDI), yet the costs of remittances remain high,

especially in Africa where they are on average 8% of the transaction value (European Investment Bank, 2020^[23]). Reducing these transaction costs to the SDG target of 3% would save USD 4.3 billion on transfers to Africa. While there are only a few places that provide for specific taxes on remittances high fees are common, and coordinated action could help reduce these.

Figure 3.3. Support for non-standard workers is often more limited

Overall support for working-age individuals, 2014-15



Note: Predicted benefit receipt during an entire year comparing: i) an able-bodied working-age adult who is out of work, had uninterrupted full-time dependent employment with median earnings in the preceding two years, and lives in a two-adult low-income household without children (“baseline: past-standard work”, triangle-shaped markers); and ii) an otherwise similar individual whose past work history is “non-standard”: mostly in part-time work, mostly self-employed, or interrupted work patterns during the two years preceding the reference year (“past non-standard”, light and dark diamond-shaped markers). Additional results for different categories of non-standard work are available for some countries. Statistical significance refers to the gaps between baseline and comparator cases (90% confidence interval). Full-time students and retirees are excluded from the sample. Details on data and model specification are summarized in Box 7.3 and presented in further detail in (Fernández, Immervoll and Pacifico, forthcoming^[24]). The data source, the European Union Statistics on Income and Living Conditions (EU-SILC) covers additional countries but they are excluded here because effective sample sizes were small (e.g. Ireland, Lithuania), because the required micro-data were entirely unavailable (Germany), because key employment-status variables are recorded only for one individual per household (Denmark, Finland, the Netherlands and Sweden), or because of partial or partly conflicting information on income or benefit receipt (Norway).

Source: OECD Employment Outlook 2019: The Future of Work (OECD, 2019^[25]),

3.4. Tax administration and implementation considerations

Effective channels to deliver support

Given the speed and magnitude of the shock and its repercussions on businesses and households, rapid delivery of support is critical. This creates a case for providing support through existing and tested channels where these exist. Where there is a choice between different existing channels, speed of delivery should be a key consideration. For instance, countries may find it timelier to provide income support to households through cash benefits rather than through the tax system. Another approach proposed by some is to avoid targeting and provide income support broadly, but to subject these payments to tax as regular income, which would imply that low-income households would keep the full amount of income support, while wealthier households and those whose economic circumstances have been affected the least would return some of the support via the tax system (Marron, 2020^[26]; Mankiw, 2020^[27]).

Developing countries face additional challenges in delivering rapid and effective support. It is more difficult for them to provide support through the tax system. Large informal sectors mean that many businesses are not paying or underpaying taxes, and therefore cannot benefit from the waving or deferral of tax payments or quicker tax refunds. Welfare payments and social benefits are less widespread, reducing the scope for governments to use existing mechanisms and schemes to provide additional benefits. Support could instead be provided to individuals and households through cash transfers, through a recurrent minimum income, or through energy and housing subsidies to the poorest. Developing countries may also want to involve local authorities more to identify and target the most vulnerable and use simple online platforms to increase visibility and accessibility.

Unintended adverse effects from support measures should be mitigated. For example, decisions to defer tax reporting may have impacts on refunds in some countries. As a result, taxpayers may see their cash flow problems increase rather than being alleviated in cases where there has been over-withholding or excess advance payments were made. In addition, in some countries there may be a link between income as reported in tax returns and eligibility for benefits or for loan applications. Making the deferral of reporting obligations optional could alleviate these risks. This could be complemented with a prioritisation of returns that involve refund claims.

Limiting non-compliance risks

Experience suggests that tax compliance may decline during times of crisis. Taxpayers facing severe economic stress may feel forced to evade tax filing and payment obligations to alleviate financial pressure. Businesses may choose not to remit the taxes collected on their sales (such as VAT) or withhold from their employees. Taxpayers that are facing sudden, severe financial stress might see no other option than to move their activities from the formal to the informal sector, in the absence of appropriate and targeted government responses. This may have a severe negative effect on a country's tax compliance culture, potentially resulting in a longer-term and more persistent decline in tax revenues.

Some support measures may encourage non-compliance. The deferral of tax payments and tax collections, for instance, may be subject to abuse and fraud if these are not carefully administered. This may include schemes to dispose of assets before debts can be collected, or where deferred payments are siphoned off in fraudulent schemes. Measures to accelerate refunds of VAT credits and other taxes, and payment of direct financial support more generally, are also particularly vulnerable to abuse during a crisis as cash-strapped businesses may be tempted to file fraudulent claims.

Tax authorities are advised to continue managing such risks of abuse in accordance with well-established risk-based compliance management principles, adjusted to the specific needs and circumstances of the pandemic as it evolves. Providing targeted assistance to those that may be particularly affected by the crisis and that may therefore present greater compliance risks is the first crucial step, but this may need to be complemented with enforcement measures. This could include the operation of adjusted risk-based systems. Differentiating between businesses with a good compliance history and those with poor or unknown compliance histories is one option. Tax administrations may also wish to consider how their communication and engagement with taxpayers during the pandemic might help to improve longer-term compliance.

Crisis response measures should be tailored to countries' administrative capacity and specific compliance risks. This is particularly relevant for developing economies, which may have limited revenue administration capacity and be confronted with relatively high levels of non-compliance and informality. In such circumstances, tax administrations may consider limiting certain tax measures, such as accelerated payment of VAT refunds, to businesses with a good compliance history or limiting the amounts involved. This could be complemented with temporary measures to focus tax administration capacity on issues specific to the crisis, such as assessing and monitoring taxpayers and tax issues that present particular compliance risks as a result of the crisis, and provide targeted assistance. This could include reaching out

proactively to selected taxpayers to provide targeted assistance as appropriate and/or monitor compliance through a number of basic compliance indicators, such as late filings and the evolution of tax arrears.

4. Recovering from the crisis

This section examines tax policy options in the recovery phase. The global economy may require support to exit the crisis once containment and mitigation measures are gradually removed. This would require carefully removing some short-term measures (Section 4.1) and targeting stimulus where policies would be most effective (Section 4.2). Stimulus policies could contribute to inclusive economic recovery (Section 4.3), aim for support to businesses that is targeted based on needs and social returns (Section 4.4) and favour policies that ultimately make countries' health and economic systems more resilient (Section 4.5).

Where recovery is anaemic, there may be a case for a longer period of expansionary fiscal policy to stimulate broader demand. The health crisis may result in a broader economic downturn beyond the sectors most affected by the containment and mitigation measures. Debt overhangs built up by businesses, households or the financial sector during the containment phase may lead to reduced consumption while these debts are paid down. Expansionary fiscal policy could focus on reducing those tax categories that are most harmful to clean and inclusive growth, while seeking to avoid windfall gains to businesses and households.

The transition from containment and mitigation to recovery is likely to be gradual and to differ across countries. The relaxation of containment measures could be differentiated by type of activity, or partial, depending on location or age group. While economic activity could gradually be allowed to resume, severe restrictions could continue to apply for specific sectors, e.g. tourism and hospitality. It could also be intermittent, i.e. relaxed and then tightened again as renewed outbreak risks rise. This could increase the risks of heterogeneous effects across businesses and households, which should be taken into consideration in countries' policy responses.

4.1. Gradually and carefully relaxing short-term measures

As economies recover, there is scope to re-evaluate many short-term measures and boost economic dynamism. There may be cases where prolonged support for households, especially through unemployment benefits, may reduce labour market activation. Prolonged wage support may also disincentivise staff turnover where it is needed, particularly in countries where net replacement rates of unemployment benefits are traditionally high (OECD, 2020^[5]). Similarly, extended support for businesses may maintain 'zombie' firms that would not have survived in the absence of containment and mitigation measures. Tax reductions and deferrals may also damage medium-term revenue raising capacity.

The removal of short-term measures should avoid spikes in tax liabilities. The removal of measures such as tax deferrals should ensure that where tax payments were deferred, large tax liabilities do not generate cliff-edges that could result in solvency problems for recovering businesses and jeopardise recovery. This could be achieved by spreading tax payments over several tax years, averaging tax bases across several years (for turnover taxes or SSCs), and ensuring that carry-forward provisions are in place for corporate taxes.

Containment and recovery policies can co-exist. As mentioned above, exit from the crisis may not be smooth or straightforward. Containment and mitigation measures may continue over time, be reinstated having been discontinued, or de-confinement may be partial. The pace and extent of the relaxation of containment and mitigation measures may also differ across countries and regions, which may result in lasting supply shocks and reduced business productivity. The mix of containment and recovery-oriented support measures should therefore remain closely aligned with the nature of the containment and

mitigation measures in place. For instance, in the event of partial relaxation, businesses that are still subject to containment and mitigation measures (e.g. international travel, sports or music industries) may need continued liquidity and solvency support even while such measures are relaxed for other sectors.

In the event that containment measures are relaxed unexpectedly quickly, there may be significant pent-up demand across the economy. Policymakers need to actively monitor and adjust stimulus measures to ensure that the combination of pent-up demand and stimulus measures do not generate excessive inflation, and that stimulus measures do not generate mal-investment or asset bubbles (Wong, 2011^[28]). This is particularly the case for countries where governance may be weaker, inflation historically higher, and currency values more volatile.

4.2. Delivering effective stimulus

Ensuring robust demand for consumption and investment goods is key to recovery. Policymakers should create conditions that strengthen consumption and investment. Stimulus packages will need to be calibrated for different countries, depending on the size of the output gap that results from the crisis. Fiscal stimulus packages should be temporary, well-communicated, and not create permanent deficits. Communication is important to ensure that stimulus results in demand and not just the paying down of existing debt or increased savings.

Household support could target less affluent households. This may be more inclusive (Section 4.3), and would ensure a higher multiplier effect as research suggests that lower income households are more likely to spend as opposed to save additional disposable income received through fiscal stimulus packages relative to other households (Sahm, Shapiro and Slemrod, 2010^[29]; Parker et al., 2013^[30]; Broda and Parker, 2014^[31]). Particular consideration should be given to ensure that groups not well covered by standard fiscal tools, e.g. because they are mostly active in the informal economy, are reached.

Policymakers should aim for stimulus that supports swift recovery and limits windfall gains. Accelerated depreciation allowances could be considered, whereas tax cuts for capital income and gains, and broad CIT reductions may be less effective. Policymakers could also avoid provisions that principally cause differences in the timing of consumption or investment but have limited impact on aggregate behaviour, such as reductions in capital gains taxes.

Coordination across countries can make stimulus considerably more effective. While the costs of the health and economic crisis will not be symmetric or necessarily synchronised across countries, no country can contain the economic crisis on its own and collective inaction or mostly uncoordinated or unilateral action would exacerbate the overall social and economic costs. An international effort would therefore be more effective to contain the economic crisis, and governments could contribute in line with their relative economic strength by jointly raising fiscal spending (OECD, 2020^[32]). Governments who engage in stimulus that is too early, too large, or on their own, may find themselves facing funding difficulties or currency mismatches. International institutions may have an important role to play in facilitating the coordination of stimulus policies.

4.3. Ensuring an inclusive recovery

The exposure to health and financial risks is highly unequal, with more vulnerable households and workers likely to be significantly more exposed. Health sector workers (of whom 70% are women) have been the most strongly exposed to health risks, followed by workers in the care sector (in particular old-age care) and in other essential sectors (e.g. food distribution and delivery, pharmaceuticals, garbage collection). Exposure to income and employment risks as a result of lockdowns is also unequal. In particular, the jobs that allow remote work tend to be more highly-skilled and high-paying ones. In the

United States, for instance, while 62% of workers in the top 25% are able to work from home, less than 10% are able to do so in the bottom 25% (Bergamini, 2020^[33]). The housing conditions of the less well-off may also limit their ability to telework. Workers on temporary contracts, among whom women tend to be overrepresented, also face greater income and job loss risks in the current crisis. Finally, lower income households have lower levels of savings to draw from and use as buffers in difficult times. Experience from the GFC shows that, while both the top and the bottom of the income distribution were severely affected early in the crisis, the top income households recovered, while those at the bottom did not (World Wealth and Income Database).

Table 4.1. Percent of workers able to work from home by income percentile

Income percentile	Home-workers or potential home-workers (%)
Bottom 25	9.20%
25-50	20.10%
50-75	37.30%
Top 25	61.50%

Note: Data are for the United States only

Source: US Labour Statistics, as cited by Bruegel: <https://www.bruegel.org/2020/03/how-covid-19-is-laying-bare-inequality/>

Policy can help in avoiding that the unequal impacts of the crisis worsen inequalities. This may be achieved through continued and targeted support to low-income households, in particular through proven mechanisms, such as earned income tax credits and tax credits for low-income families with children. As mentioned, this could also support economic recovery as these households will be more likely to spend additional income than higher income households. Efforts should also be made to provide support to those remaining largely outside of the system, including informal workers and the homeless.

Policies could seek to reduce the vulnerability of self-employed and gig workers. These workers usually do not benefit from the same level of social protection as regular employees and generally have weaker collective bargaining power. They are also highly represented in some of the sectors that have suffered the most from the health and economic crisis (e.g. taxi drivers, small shop and restaurant owners, artistic performers). The crisis has exposed their high degree of vulnerability. A number of countries have temporarily expanded sick leave or unemployment benefits to non-standard workers, and consideration may be given to strengthening their social protection in the longer run.

Policies should seek to repair damage to labour markets. Reducing unemployment is not only a consequence but also an enabling factor in economic recovery. There may be a case for expanded active labour market policies in those sectors where unemployment has risen most.

International cooperation will be needed to support developing countries. The pandemic has shown that globally all countries are only as safe as the most vulnerable country. To reduce the risk of future pandemics significant improvements in resilience will be needed in many developing countries, and they will need support to achieve this. More broadly, continued international support will be needed to help rebuild their economies following the shock. While there has been progress in international tax cooperation in recent years, the benefits of this have yet to be realised in many developing countries, especially low income and low capacity countries; as such further work will be needed at the international level to ensure that low income and low capacity countries are able to effectively tax cross-border activity and offshore assets. This will include a need for both financial support, including assistance to build digitalised tax systems, but more significantly a review may be needed of international standards and instruments.

4.4. Targeting business support based on needs and social returns

As economic support measures put into place during containment and mitigation is phased out, investment could be stimulated. Accelerated depreciation allowances or similar investment incentives could be considered to support domestic investment. These incentives could be targeted towards investments that reduce future risks and strengthen resilience. They could prioritise sectors that have been most severely hit by the health and economic crisis.

Differentiated recovery may call for differentiated support. For example, there may be catch-up growth in manufacturing sectors as consumers make up for lost purchases and businesses re-stock inventories (though this may depend on the debt overhang for businesses from the containment phase). This can create inflationary pressure in those sectors. However, in the services sector, lost consumption by households may not be recovered or only have recovered only very partially, suggesting that the path to recovery may be slower.³ Parts of the services sector may also recover more slowly than others (e.g. tourism). Similarly, in some countries that recover early from the health crisis, sectors linked to global supply chains may see limited recovery until the health crisis abates in trade partner countries. There may be a case to continue to target policies (e.g. subsidised loans or grants, or targeted tax deferrals or tax exemptions) towards those sectors most affected.

Specific support measures could be provided for individual entrepreneurs and owners of small, closely held companies. On the one hand, this could include support to facilitate a fair division of the economic losses in the case of a bankruptcy; on the other, support could also be provided to help setting up new businesses or diversify existing businesses in the post-crisis economy. These measures should be closely coordinated with credit and financial policies.

A further consideration could be to award favourable tax treatment for investments characterised by positive social spill-over effects. Such spill-overs can exist with research and development (R&D) in general, but may be particularly pronounced for investments that strengthen the ability of economies to cope with epidemics, both in the short and in the long run. Similar arguments apply to support for environment-friendly investments. Resilience is now thought to have been underprovided, and its public good characteristics suggest that a role for public policy, including tax policy, is justifiable.

Governance is key when designing incentives to invest in resilience, and countries should take into account their level of governance and level of development. Developing countries have often struggled to design effective tax incentives, improving or avoiding future incentives should be a priority. Repeated studies have shown that many tax incentives provided by developing countries were not necessary for the investment to take place. As countries developing countries seek to attract investment after the epidemic many will face difficult choices between seeking to ensure employment for citizens and vital tax revenues for public services. Increased transparency and greater regional/international coordination to avoid a race to the bottom could help reduce the risks of wasteful incentives.

4.5. Strengthening resilience

Policy efforts in the recovery phase could strengthen resilience to future health crises. First, there is a need to strengthen disease surveillance mechanisms and health information infrastructure. Second, the crisis has exposed the importance of having adaptable health systems, which have some excess or adaptable capacity to face unexpected demand surge while maintaining efficiency. Third, the development

³ If consumers planned to buy a new phone prior to the crisis, they are likely to do so when the crisis is over. However, lost consumption in the services sector (a haircut, a meal in a restaurant, or an Easter vacation) may not prompt the same level of catch up spending).

of diagnostics, treatments and vaccines needs to be improved through a co-ordinated international response, and incentives to rapidly scale up production even before final approval is secured. Finally, the current crisis demonstrates the importance of universal health coverage as a key element for the resilience of health systems. These efforts will require additional public investment in the healthcare sector. For developing countries, these objectives would require an increased focus on domestic resource mobilisation for health financing (see Section 5).

Resilience to economic shocks could be improved through a combination of tools. Automatic stabilisers can quickly cushion the impacts of crises. They can also encourage demand when it lags, and ensure a faster recovery. As mentioned before, investment incentives can also be used to steer businesses towards investments that strengthen our preparedness for future shocks and reduce future risks (e.g. health-related and R&D investments, teleworking, low carbon technologies). Measures that permanently provide greater social protection to non-standard workers will also make them less exposed to future risks.

Recovery policies provide opportunities to help attain environment-related objectives. The use of tax incentives could support stronger environmental commitments and performance in pollution-intensive sectors that may be particularly affected by the crisis. Where these exist, phasing out fossil-fuel subsidies may also become more appealing when funding needs soar, but this needs to be combined with more targeted relief for vulnerable households.

5. Revenue impacts and restoring public finances

5.1. Revenue impacts of containment and mitigation

The direct impact of COVID-19 on tax revenues, even before the revenue impact of any fiscal policy responses is considered, has the potential to be significant in the short-run across the globe. These revenue impacts will take a variety of channels:

- A slow-down in economic activity and employment will reduce or defer income tax collections and social security payments, resulting in lower corporate income tax and reduced personal income tax, social security contributions, and payroll tax receipts. Corporate tax revenues may also remain depressed for some time into the future as any losses generated in 2020 will generally be available to be carried forward and applied against future income.
- A reduction in consumption is likely to result both due to reduced consumer confidence and as a result of the containment and mitigation measures undertaken. As indicated in Section 1, consumption is estimated to fall by about one third in many countries during containment. This, combined with a shift towards the consumption of necessity goods, which are often zero-rated or exempt under VAT systems, and a higher share of government consumption in GDP, will reduce consumption tax revenues and particularly revenues from VAT, although excise and environmentally-related taxes will also be affected. Property taxes are likely to be less affected as they are not tied as directly to the economic cycle, although the various measures introduced during containment can be expected to have some impacts on property values and, therefore, taxes directly linked to property valuations may also be affected.
- A fall in tax revenue from tourism and on travel will also result, including both direct losses in the form of reduced tourism, aviation and accommodation taxes, but also indirectly, particularly through falls in VAT revenues.
- Resource prices, notably oil, have fallen significantly in recent weeks, which for resource-rich countries will reduce revenues from excises and royalty payments and lead to lower revenues from corporate income taxes.

On average, trends in tax revenues and in GDP tend to move together, but tax revenues tend to fall faster than GDP when GDP growth is limited or negative (Belinga et al., 2014^[34]). A greater decrease in tax revenues than in GDP was also seen during the GFC in most countries. Estimating the impact of COVID-19 on global GDP remains a highly speculative exercise, but early estimates of the impact suggest that the impact on tax revenues is likely to be significant, due to the large activity decline and the potentially even larger effect on tax revenues.

Although the impetus and effects of the GFC in 2007-2009 are substantially different from the current crisis, changes in tax revenues during the GFC provide an example of the scale of the revenue impact of a major global shock, as shown in the Table 5.1 below. Between 2007 and 2009, the average tax-to-GDP ratio in the OECD fell by 1.4 percent of GDP. Decreases outside OECD countries were smaller but still significant: between 2008 and 2009, the Latin America and Caribbean (LAC average) fell by 0.6 percentage points; and between 2007 and 2009 the Africa average fell by 0.6 percentage points before falling again in 2010 by another 0.2 percentage points. On average, 90 of the 98 countries currently

included in the OECD's Global Revenue Statistics Database experienced a fall in their tax-to-GDP ratio between 2007 and 2010 (inclusive), with the average fall from the maximum to the minimum in each of these countries during this period being 1.9 percent of GDP. These measures incorporate both the direct impact of the crisis itself, as well as changes in policy that were put in place during the crisis. Table 5.1 also shows that it can take a number of years for revenues to return to pre-crisis levels.

Table 5.1. Average Tax-to-GDP ratios, 2007-2017

	Asia-Pacific	Africa	Latin America and the Caribbean	OECD
2007	21	16.1	21.3	33.6
2008	21	15.7	21.5	32.9
2009	20	15.5	20.9	32.2
2010	20.3	15.3	21.1	32.3
2011	20.8	16	21.5	32.6
2012	21.3	16.3	21.9	33.1
2013	21.3	16.7	21.9	33.4
2014	21.2	16.8	22.1	33.6
2015	21.1	17.2	22.7	33.7
2016	20.7	17.2	22.6	34.4
2017	20.1	17.2	22.8	34.2

Note: Averages are shown for 25 LAC countries, 26 African countries, 17 Asia-Pacific countries, and the 36 OECD countries, based on the OECD's Global Revenue Statistics Database. 2007 is used as the starting point as it represents the high-point for all of these averages. The most recent year for which data is available for all regions is 2017.

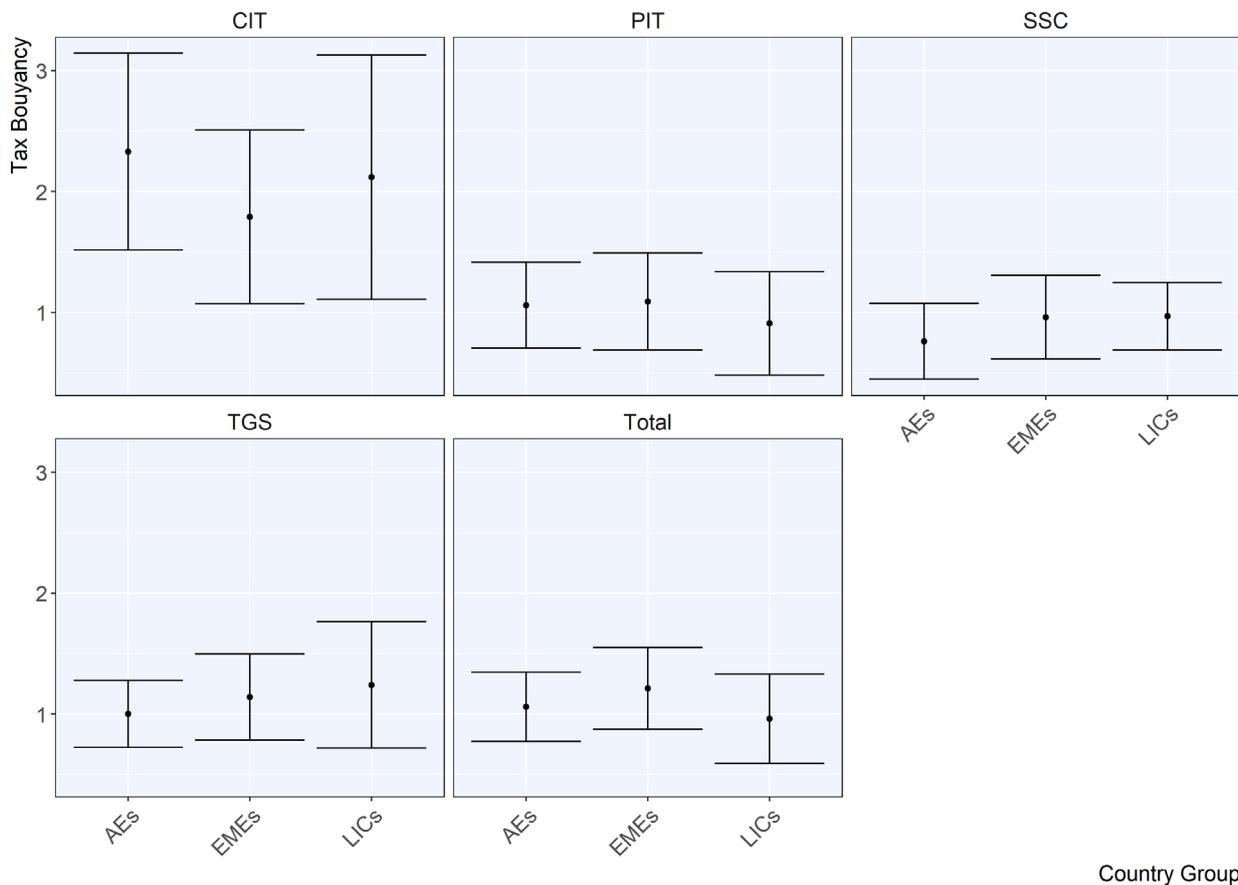
Source: OECD Global Revenue Statistics Database.

Impacts on revenues will vary across countries and across time. In the short-term, the extent of reductions in tax revenues will be seen in countries that are heavily affected by COVID-19 themselves and that impose confinement measures for longer periods, as well as those that have a greater exposure to the global economy via trade, tourism, or participation in global value chains. In the longer term, the impact on tax revenues will depend in large part on the effectiveness of policy responses taken to limit the economic impact of the crisis and on international transmission channels.

Countries may experience losses in tax revenues to different extents depending on their tax mix (Lagravinese, Liberati and Sacchi, 2020^[35]; Sancak, Xing and Velloso, 2010^[36]). Figure 5.1, based on estimates from Dudine and Jalles (2017^[37]) suggests that corporate income taxes may be most sensitive to sudden changes in GDP. During the GFC, the largest reduction in revenues were seen in corporate income taxes. However, the previous crisis was a financial crisis and comparisons to the current situation are not straightforward. Even where countries see a more significant drop in CIT revenues, CIT generally accounts for a small share of overall tax revenues, which means that the overall effect on revenues could be limited. Drops in consumption taxes and in PIT and SSCs could well be larger in this crisis relative to the GFC. The decline in consumption tax revenues could have a particularly significant impact on developing and emerging countries as they rely heavily on consumption tax revenues, while a decline in PIT and SSCs would be more strongly felt by advanced countries.

Figure 5.1. Tax Responses to GDP

Estimates of impact of a 1% change in GDP on tax revenue, by country group and tax category



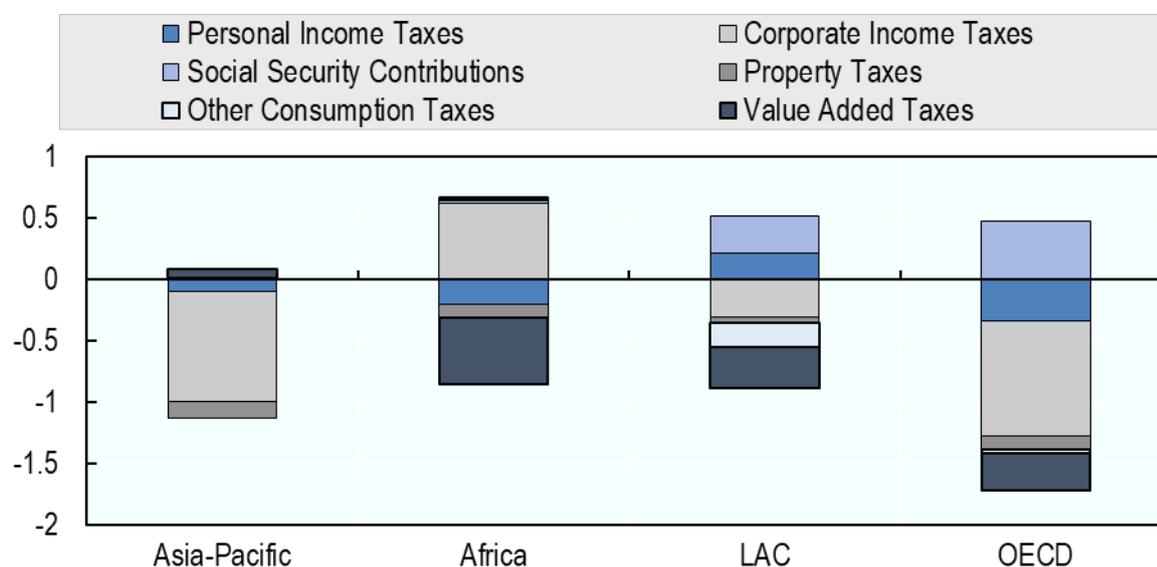
Note: Figures are provided for corporate income taxes (CIT), personal income taxes (PIT), social security contributions (SSC) and taxes on goods and services (TGS) and total taxes. Separate estimates are provided for advanced economies (AEs) emerging market economies, (EMEs) and low-income countries (LICs). Each country group covers a different time span. More specifically, while for AEs data exists since the 1980s, for EMEs and LICs it exists only from the 1990s. Estimates are the short-run tax buoyancies, with standard errors at the 5% level.

Source: Estimates taken from Dudine and Jalles (2017).

In developing countries, the revenue impacts during the crisis may be more pronounced, for a number of reasons. Firstly, the sharp decline in global and domestic trade will affect revenues more in developing countries as many rely more heavily on revenues from taxes on trade and international transactions. VAT revenues in developing countries may be significantly affected where these taxes are collected largely at the border (McNabb and LeMay-Boucher, 2014^[38]; Keen, 20017^[39]). Secondly, several developing countries have a high share of revenues from commodities and natural resources, and are more exposed to fluctuations in global demand and prices. Oil prices presently are very low, although this is also due to factors other than the pandemic and that may evolve – but persistently low prices would continue to have considerable revenue impacts. Developing countries with a large tourism sector (such as small island developing states) will also experience a significant drop in revenues, and this loss in revenue could be prolonged especially if the health crisis lasts longer in developing countries than in advanced economies. Finally, developing countries are typically more reliant than developed countries on corporate taxes and on consumption taxes, which are both likely to face substantial falls and a slower recovery than many other tax types.

Figure 5.2. The impacts of the financial crisis on tax mixes

Change in components of tax revenue, 2007-2009 (percentage points of GDP)



Note: Averages are shown for 25 LAC countries, 26 African countries, 17 Asia-Pacific countries, and the 36 OECD countries, based on the OECD's Global Revenue Statistics Database. 2007 is used as the starting point as the acute impacts of the crisis only materialised as of 2008. The most recent year for which data is available for all regions is 2017.

PIT refers to personal income taxes, CIT refers to corporate income taxes, SSC refers to social security contributions, Prop refers to property taxes, VAT refers to value added taxes, and OCT refer to other consumption taxes.

Source: OECD Global Revenue Statistics Database.

5.2. Impact on budget balances and public debts

The crisis will likely have a substantial impact on countries' budget balances and public debt levels.

The combined effect of the costs of fiscal packages, the increase in public spending to mitigate health and economic damages, and the loss in tax revenues resulting from the crisis will lead to a significant increase in government borrowing, translating into quickly deteriorating budget balances and public debt levels. As a point of reference, during the GFC, budget deficits soared, reaching 8.7% of GDP in 2009 on average in OECD countries. Public debt levels grew from 73% of GDP on average in 2007 to 101% in 2011 (Figure 5.3). For 2020, the economic impact of the COVID-19 pandemic is expected to be worse than the GFC.

The consequences of rising budget deficits could be severe given high debt levels. At the same time, however, net government interest payments as a share of GDP are generally below levels seen following the crisis in OECD countries, despite higher debt levels, which suggests that there is more fiscal space in a number of countries (Figure 5.5).

The fiscal positions of countries varied widely heading into the crisis. Across the OECD, for instance, gross general government debts ranged from 13% of GDP in Estonia to an estimated 225% of GDP in Japan in 2019 (Figure 5.4). General government budget balances also show significant cross-country variation, ranging from a deficit of 7% of GDP in the United States to a surplus of 8.8% in Norway in 2019 (OECD, 2019^[40]). Fiscal space is also generally smaller in developing countries, especially in low income countries where many are already in, or at high risk, of debt distress. The impact of the crisis on public finances, as well as the room for policy response, will therefore be far from uniform across countries.

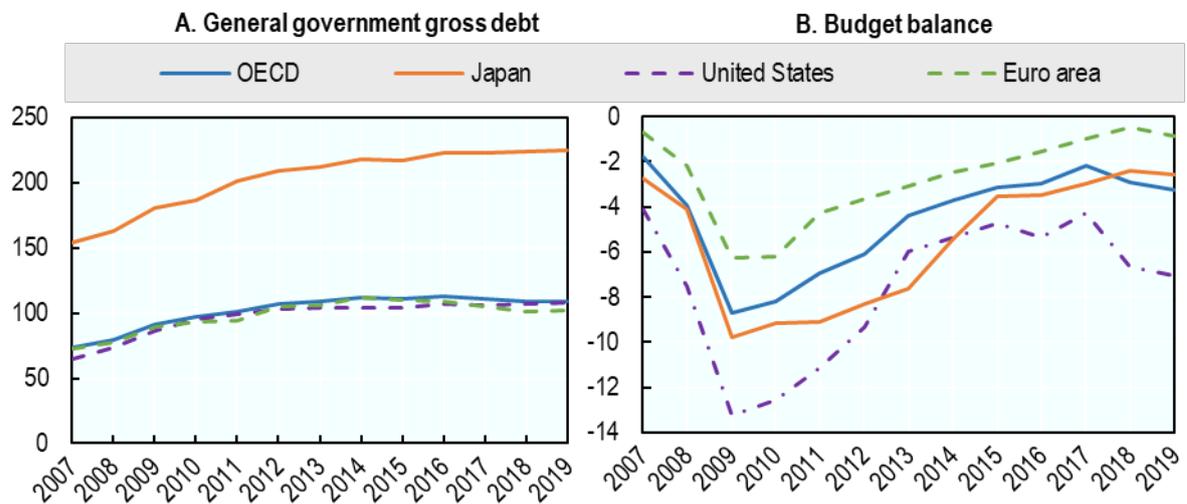
The combination of sharply rising spending needs and reduced revenues suggests a need for innovative approaches to financing and funding. For low-income countries, challenging fiscal

positions may mean that there is limited access to domestic resources to fight the health crisis. These countries may also face difficulties in international debt markets, especially when there may be difficulties in the financial sector. Potential increases in borrowing costs may expose financial vulnerabilities that have accumulated over years of low interest rates. High debt levels will also constrain their ability to invest in policies to achieve the 2030 United Nations Sustainable Development Goals.

There is an important role for international institutions, as well as development aid, to play in ensuring access to finance at sustainable rates. Sustained development aid and cooperation from advanced countries should also play a critical role in bolstering developing countries' capacity to fight the pandemic.

Figure 5.3. General government gross debts and budget balances

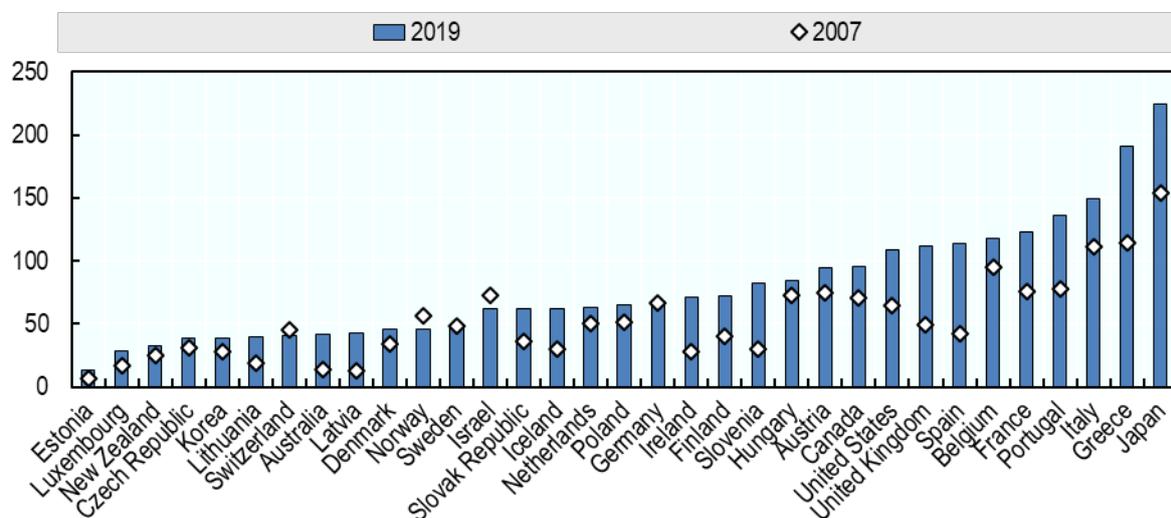
As a percentage of GDP



Source: OECD Economic Outlook database

Figure 5.4. General government gross debts in 2007 and 2019

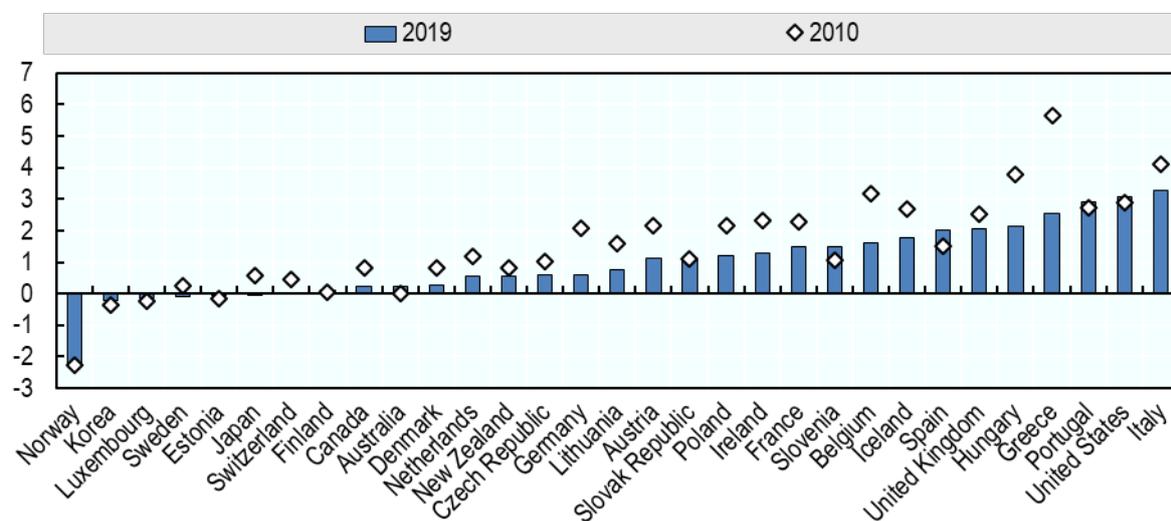
As a percentage of GDP



Note: These figures are from the OECD Economic Outlook Database and differ from the Maastricht definition of general government gross public debt. 2008 data (instead of 2007) for Korea, 2018 data (instead of 2019) for Norway.
Source: OECD Economic Outlook Database

Figure 5.5. Net general government interest payments

As a percentage of GDP



Source: OECD Economic Outlook Database

5.3. Towards fiscal policy in the aftermath of the crisis

Exploring options for tax policy reform

Tax policy will contribute to covering the costs of the crisis and policy responses to it. Efforts to restore public finances should not come too early as some countries' path to exiting the crisis may be long. As countries look to restore their public finances, tax will have a key role to play, both in terms of revenue levels and of the tax structure, which may need to be adapted to a post-COVID era. However, policy makers should consider that the best way to boost tax revenue is to support solid growth, including through sufficiently strong and sustained stimulus, as this will expand tax revenues. This can occur in tandem with other policies to smooth costs over time, e.g. central banks keeping government bonds on their balance sheets indefinitely.

It is clearly too early to develop advice on tax policies for the longer term, but the debate is starting. The unprecedented nature of the crisis is, for example, prompting reflection on whether some exceptional measures could be contemplated, as has been the case after major wars or major fiscal crises (Aidt and Jensen, 2009^[41]; Seelkopf, Lierse and Schmitt, 2016^[42]; Scheve and Stasavage, 2012^[43]). This involves suggestions for new sources of revenue or modifying the tax mix in existing systems.

Some academics and other stakeholders have recommended extraordinary revenue raising measures, e.g. (Guvenen et al., 2019^[44]; Landais, Saez and Zucman, 2020^[45]). Suggestions to use the tax system to tax back additional income earned during the crisis (Marron, 2020^[26]; Mankiw, 2020^[27]) are being floated. Some are also mentioning carbon pricing tax measures as a way to combine revenue raising objectives with a more fundamental, long term structural reform. While recognising the significant political economy challenges of such measures, there is evidence that introducing new taxes is less difficult at a time of major policy reforms, as it allows for the impacts of a wide range of policy measures to be balanced. Even though not all countries may be willing to move in these directions, a growing number are, for example, introducing or strengthening carbon pricing, and this could be further facilitated by international cooperation and coordination.

Reforms of the prevailing tax landscape could be considered anew, such as base broadening measures and tackling inefficient tax expenditures which could be easier to address in the context of a broad reconsideration of the tax system. Governments may also consider new and under-used tax bases. Where governments need to expand tax revenues, efforts can focus on raising revenues from tax bases that will be the least detrimental to growth, including recurrent taxes on immovable property and general consumption taxes. Further analytical work will be needed, recognising that efforts to restore public finances have not begun and may be a while. This time window should be used to explore possible avenues for tax reform.

Consulting with member countries of the Inclusive Framework and other organisations, the OECD stands ready to explore and assess new ideas as well as more traditional ones.

Corporate income taxation and the international tax agenda

Since the last global crisis in 2008, international tax cooperation has advanced significantly with regard to tax transparency as well as fighting tax avoidance by MNEs. For example, in 2018 information relating to 47 million financial accounts was exchanged with a combined value of around EUR 4.9 trillion under the Standard on Automatic Exchange of Information. The international tax community, through the Inclusive Framework on BEPS, which includes 137 jurisdictions on an equal footing, has been mandated to address the tax challenges of the digitalisation of the economy. Work has progressed well, focussing on two pillars: Pillar 1 concerning a reallocation of taxing rights and increased tax certainty while Pillar 2 focuses on ensuring that the profits of MNEs are subject to a minimum level of tax. In spite of the disruption due to the health crisis, work has progressed. In a post-crisis environment, it is likely that

addressing the tax challenges of the digitalisation of the economy and ensuring that MNEs pay a minimum level of tax will be of even higher importance.

While many businesses are facing unprecedented difficulties during the crisis, some may see profits rise. The expansion of teleworking and the shift towards digital commerce observed during the crisis may prove sticky and more economic activity may move online. Companies that are able to continue, and possibly even expand, their operations during the crisis as well as those that are able to return to normal production quicker or adapt faster may earn economic rents. Governments could focus on incentivising investment while strengthening the taxation of economic rents and boosting resilience.

Increased use of digital services and the need to expand revenue raising could provide new impetus to efforts to reach agreement on Pillar 1 issues internationally. The focus of the work on companies with high levels of profitability should facilitate revenue raising without negatively impacting the recovery of companies that have suffered heavily from the crisis. A swift recovery will require smooth functioning of global supply chains. In this light, policy makers could work to avoid the risks of unilateral action in the digital taxation area and the disruption of the international tax and trade agenda that could result from failing to reach a consensus-based outcome on digital taxation. The focus of Amount A of Pillar 1 on high-profitability companies would mean that companies running losses would be less likely to be impacted, which would limit negative effects on growth or the recovery of these companies from the crisis.

Rising pressure on public finances may strengthen the push for effective minimum taxation of MNEs. Where some countries may need to engage in difficult fiscal choices after the crisis, the demand for effective global implementation of the GloBE proposal under Pillar 2 will be higher, not least to ensure that there is a level playing field in the levels of effective taxation between major MNEs and SMEs who may suffer disproportionately from the crisis.

Overall, tax cooperation will be even more essential so tax disputes do not turn into trade wars which would harm recovery chances further. This also means that progress will have to be made on increasing tax certainty, notably by improving dispute resolution and prevention mechanisms.

Finally, increased revenue needs should prompt investments in strengthened tax administrations, through increased use of new technologies and digitalisation. Models of highly digitalised tax administrations can increase compliance and reduce burdens on taxpayers from more seamless and frictionless taxation. The benefits of investment in better tax administration may be particularly high for developing countries. Simplifying taxation via both administrative and policy measures, including simplified taxes for microbusinesses, could also help to bring some informal workers into the formal sector in the longer term.

5.4. Looking ahead, a new approach to domestic resource mobilisation for developing countries may be required

The COVID-19 crisis is illustrating our collective vulnerability, where one weak link threatens the physical and economic health of all. As such, all countries have a direct interest in eradicating the virus and rebuilding economic life throughout the world as a necessity for all. It is for this reason that some are already suggesting the need for a new kind of ‘Marshal Plan’ to support the poorest countries, with a call for unprecedented levels of cash to flow from North to South as a matter of urgency. Although external financing) will correctly form the main pillar of such an approach in the short term, domestic resource mobilisation, and taxation in particular, will remain as the only long-term viable source of financing—not just for health systems strengthening—but for all public services, investment and the reconstruction of economic life. With fiscal headroom highly constrained, not least with debt servicing limiting the ability of

governments to collect and spend precious tax revenues, the work to build effective tax systems in developing countries has never been more important and must remain in sharp focus.

Domestically, this means that many countries will need to strive to increase their tax to GDP ratios

For example, average tax-to-GDP ratios in Africa are around 17% which is low compared to the average of 34% in OECD countries (OECD/ATAF/AUC, 2019^[46]). This will include efforts at formalising the economy – bringing more people into the tax, and social protection systems – increasing the use of property and carbon taxes, and improving the performance of personal income tax, especially on the richest. These are underutilised tools in many countries, and will broaden the tax base, requiring governments to rebuild the social-fiscal contract with their citizens. This can help not only with raising revenues, but also building trust and accountability between citizens and state, dynamics that will be strained during the crisis.

The current crisis also affords the opportunity to assess changes in tax administration. For example, the step changes that digital technology in tax collection can make to the overall efficiency of tax systems and increased revenues stands out as an issue where learning between countries could be accelerated. Evidence from even the lowest capacity countries (e.g. Liberia) suggests investments in digital capability in tax administration can be a game changer, and the G20 (e.g. Russia) have extensive experience to share. International support for capacity development in all areas of tax administration and tax policy development therefore remains essential and must be stepped up, with the Platform for Collaboration on Tax playing a leading role with many other partners.

Internationally, as fiscal headroom tightens, the tolerance in developing countries for international tax avoidance and evasion will decrease and untaxed income globally will be prioritised. Significant progress has been made on fighting both of these problems through the work of the Inclusive Framework on BEPS and the Global Forum over the last decade, but a number of challenges remain, not least the impact of digitalisation of the economy. While many challenges are universal, low income countries are increasingly voicing their concerns that they are not benefitting fully from the tax avoidance tools that have been developed. Most recently, the discussions on the taxation of the digital economy are beginning to address some of the fundamental concerns to developing countries, particularly the reallocation of taxing rights and proposals to capture untaxed income and reduce profit shifting through the introduction of a global minimum corporate income tax. Yet, at this stage, it appears that many low income and low capacity countries remain uncertain about the extent to which the direct benefits of these reforms will flow to them.

Five years after the BEPS Project, and ten years after the establishment of the Global Forum, the time is right to assess the benefits for low income countries. This stock taking exercise may be an opportunity to re-examine how international tax rules currently meet the needs of developing countries. The imbalance between residence and source taxation, ongoing challenges with transfer pricing, the need for greater simplification and administrability of the new rules are persistent challenges identified by low income and low capacity countries, and require special focus. To address these challenges, work could begin in the Inclusive Framework on a stock take of how the BEPS work has benefited these countries, starting with measures such as country by country reporting and tax treaty abuse provisions. The efficacy of the international network of exchange of information for low income countries could also be reviewed. The work could entail the development of proposals that would address their particular needs, in the form of a new deal on international taxation as part of the international effort to rebuild economic life in the post COVID-19 era. Putting in place effective and durable solutions to deliver positive outcomes for countries as they develop their capacities can provide the certainty of treatment and revenues that both businesses and governments require. At the same time, the Inclusive Framework could also give attention to other tax policy and tax administration measures that would deliver a step change for developing countries, including digital technology and tax administration, noted above.

References

- Abramovsky, L., D. Phillips and R. Warwick (2017), “Redistribution, efficiency and the design of VAT: a review of the theory and literature IFS Briefing Note BN212”, *IFS Briefing Note BN212*, <https://www.ifs.org.uk/uploads/publications/bns/BN212.pdf> (accessed on 7 April 2020). [51]
- Aidt, T. and P. Jensen (2009), “The Taxman Tools Up: An Event History Study of the Introduction of the Personal Income Tax in Western Europe, 1815-1941.”, *Journal of Public Economics*, Vol. 93, pp. 160-175. [41]
- Bartsch, E. et al. (2019), “Dealing with the next downturn: From unconventional monetary policy to unprecedented policy coordination”, *SUERF Policy Notes* ...: 105, <https://www.suerf.org/policynotes/8209/dealing-with-the-next-downturn-from-unconventional-monetary-policy-to-unprecedented-policy-coordination/html> (accessed on 4 April 2020). [13]
- Belinga, V. et al. (2014), “Tax Buoyancy in OECD Countries”, No. Working Paper No. 14/110, <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Tax-Buoyancy-in-OECD-Countries-41661> (accessed on 3 April 2020). [34]
- Bergamini, E. (2020), *How COVID-19 is laying bare inequality*, <https://www.bruegel.org/2020/03/how-covid-19-is-laying-bare-inequality/> (accessed on 8 April 2020). [33]
- Bernanke, B. (2016), *What tools does the Fed have left? Part 3: Helicopter money*, <https://www.brookings.edu/blog/ben-bernanke/2016/04/11/what-tools-does-the-fed-have-left-part-3-helicopter-money/> (accessed on 4 April 2020). [12]
- Blanchard, O. and D. Leigh (2013), *Growth forecast errors and fiscal multipliers*, <http://dx.doi.org/10.1257/aer.103.3.117>. [9]
- Broda, C. and J. Parker (2014), “The economic stimulus payments of 2008 and the aggregate demand for consumption”, *Journal of Monetary Economics*, Vol. 68/S, pp. S20-S36, <http://dx.doi.org/10.1016/j.jmoneco.2014.09.002>. [31]
- Çelik, S., G. Demirtaş and M. Isaksson (2019), “Corporate Bond Markets in a Time of Unconventional Monetary Policy”, *OECD Capital Market Series*, <http://www.oecd.org/corporate/Corporate-Bond-Markets-in-a-Time-of-Unconventional-Monetary-Policy.htm>. [19]

- Dudine, P. and J. Tovar Jalles (2017), “How Buoyant is the Tax System? New Evidence from a Large Heterogeneous Panel”, *IMF Working Papers*, Vol. 17/04, <https://www.imf.org/en/Publications/WP/Issues/2017/01/20/How-Buoyant-is-the-Tax-System-New-Evidence-from-a-Large-Heterogeneous-Panel-44551> (accessed on 4 April 2020). [37]
- Egan, M. and T. Philipson (2013), “International Health Economics”, *National Bureau of Economic Research*, <http://dx.doi.org/10.3386/w19280>. [49]
- Eichenbaum, M., S. Rebelo and M. Trabandt (2020), “The Macroeconomics of Epidemics”, *NBER Working Paper* 26882, <http://dx.doi.org/10.3386/w26882>. [4]
- European Investment Bank (2020), *Banking in Africa: financing transformation amid uncertainty*, EIB Economics Department, <http://dx.doi.org/10.2867/956074>. [23]
- Fernández, R., H. Immervoll and D. Pacifico (forthcoming), “Beyond repair? Anatomy of income support for standard and non-standard workers in OECD countries”, *OECD Employment, Social and Migration Working Papers*. [24]
- Fujita, S. and G. Moscarini (2017), “Recall and unemployment”, *American Economic Review*, Vol. 107/12, pp. 3875-3916, <http://dx.doi.org/10.1257/aer.20131496>. [7]
- G20 Framework Working Group (2020), *G20 Action Plan on COVID-19*. [14]
- Guerrieri, V. et al. (2020), *Macroeconomic Implications of COVID-19: Can Negative Supply Shocks Cause Demand Shortages?*. [2]
- Güvenen, F. et al. (2019), *Use It or Lose It: Efficiency Gains from Wealth Taxation*, National Bureau of Economic Research, Cambridge, MA, <http://dx.doi.org/10.3386/w26284>. [44]
- Hijzen, A. and D. Venn (2011), “The Role of Short-Time Work Schemes during the 2008-09 Recession”, *OECD Social, Employment and Migration Working Papers*, No. 115, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5kgkd0bbwvxp-en>. [17]
- Huang, Y. et al. (2020), “Saving China from the coronavirus and economic meltdown: Experiences and lessons”, in Baldwin, R. and B. Weder di Mauro (eds.), *Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes*, CEPR Press, London. [20]
- IMF (2019), *List of Low Income Countries Debt Sustainability Analyses for Eligible under the Poverty Reduction and Growth Trust As of November 30, 2019*, <https://www.imf.org/external/Pubs/ft/dsa/DSAlist.pdf> (accessed on 8 April 2020). [15]
- Inchauste, G. et al. (2018), “Redistribution via VAT and cash transfers: an assessment in four low and middle income countries”, *IFS Working Paper* W18/11, <http://dx.doi.org/10.1920/wp.ifs.2018.W1811>. [50]
- Keen, M. (2017), “VAT, Tariffs, and Withholding : Border Taxes and Informality in Developing Countries”, *IMF Working Paper* 07/174, <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/VAT-Tariffs-and-Withholding-Border-Taxes-and-Informality-in-Developing-Countries-21122> (accessed on 7 April 2020). [39]
- Lagravinese, R., P. Liberati and A. Sacchi (2020), “Tax buoyancy in OECD countries: New empirical evidence”, *Journal of Macroeconomics*, Vol. 63, p. 103189, <http://dx.doi.org/10.1016/j.jmacro.2020.103189>. [35]

- Landais, C., E. Saez and G. Zucman (2020), *A progressive European wealth tax to fund the European COVID response* | VOX, CEPR Policy Portal, <https://voxeu.org/article/progressive-european-wealth-tax-fund-european-covid-response> (accessed on 4 April 2020). [45]
- Mankiw, G. (2020), *A Proposal for Social Insurance During the Pandemic*, <http://gregmankiw.blogspot.com/2020/03/a-proposal-for-social-insurance-during.html> (accessed on 7 April 2020). [27]
- Marron, D. (2020), *If We Give Everybody Cash To Boost The Coronavirus Economy, Let's Tax It* | Tax Policy Center, <https://www.taxpolicycenter.org/taxvox/if-we-give-everybody-cash-boost-coronavirus-economy-lets-tax-it> (accessed on 7 April 2020). [26]
- McCulley, P. and Z. Pozar (2013), "Helicopter Money: Or How I Stopped Worrying and Love Fiscal-Monetary Cooperation", *Global Society of Fellows Paper*. [11]
- McNabb, K. and P. LeMay-Boucher (2014), "Tax Structures, Economic Growth And Development", *ICTD Working Paper 22*, <http://dx.doi.org/10.2139/ssrn.2496470>. [38]
- OECD (2020), *Beyond Containment: Health systems responses to COVID-19 in the OECD*, OECD, Paris, https://read.oecd-ilibrary.org/view/?ref=119_119689-ud5comtf84&Title=Beyond%20Containment:Health%20systems%20responses%20to%20COVID-19%20in%20the%20OECD. [6]
- OECD (2020), *Coronavirus (COVID-19): Joint actions to win the war, Statement by OECD Secretary General*, <https://www.oecd.org/about/secretary-general/Coronavirus-COVID-19-Joint-actions-to-win-the-war.pdf> (accessed on 2 April 2020). [47]
- OECD (2020), "Evaluating the initial impact of COVID containment measures on economic activity", [https://read.oecd-ilibrary.org/view/?ref=126_126448-kcrc0cs6ia&title=EVALUATING THE INITIAL IMPACT OF COVID CONTAINMENT MEASURES ON ECONOMIC ACTIVITY](https://read.oecd-ilibrary.org/view/?ref=126_126448-kcrc0cs6ia&title=EVALUATING%20THE%20INITIAL%20IMPACT%20OF%20COVID%20CONTAINMENT%20MEASURES%20ON%20ECONOMIC%20ACTIVITY). [1]
- OECD (2020), *Flattening the COVID-19 peak: Containment and mitigation policies*, OECD, Paris, [https://read.oecd-ilibrary.org/view/?ref=124_124999-yt5ggxirhc&title=Flattening the COVID-19 peak-Containment and mitigation policies](https://read.oecd-ilibrary.org/view/?ref=124_124999-yt5ggxirhc&title=Flattening%20the%20COVID-19%20peak-Containment%20and%20mitigation%20policies) (accessed on 6 April 2020). [3]
- OECD (2020), *OECD Economic Outlook, Interim Report March 2020*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/7969896b-en>. [32]
- OECD (2020), *Supporting people and companies to deal with the COVID-19 virus: Options for an immediate employment and social-policy response*, [https://read.oecd-ilibrary.org/view/?ref=119_119686-962r78x4do&title=Supporting people and companies to deal with the Covid-19 virus](https://read.oecd-ilibrary.org/view/?ref=119_119686-962r78x4do&title=Supporting%20people%20and%20companies%20to%20deal%20with%20the%20Covid-19%20virus). [5]
- OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9ee00155-en>. [25]
- OECD (2019), *OECD Økonomisk perspektiv nr. 2 2019: Foreløpig versjon - 21st November 2019*. Laurence Boone. *OECD Chief Economist* (Summary in Norwegian), OECD Publishing, Paris, <https://dx.doi.org/10.1787/3655d313-no>. [40]
- OECD (2018), "The Taxation of Household Savings", *OECD Tax Policy Studies* 25. [52]

- OECD (2014), “The crisis and its aftermath: A stress test for societies and for social policies”, in *Society at a Glance 2014: OECD Social Indicators*, OECD Publishing, Paris, https://dx.doi.org/10.1787/soc_glance-2014-5-en. [21]
- OECD (2010), *OECD Employment Outlook 2010: Moving beyond the Jobs Crisis*, https://dx.doi.org/10.1787/empl_outlook-2010-en. [16]
- OECD (2010), *Position Paper: Support Labour Demand*, <http://www.oecd.org/employment/emp/45794539.pdf>. [18]
- OECD/ATAF/AUC (2019), *Revenue Statistics in Africa 2019: 1990-2017*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5daa24c1-en-fr>. [46]
- Parker, J. et al. (2013), “Consumer spending and the economic stimulus payments of 2008”, *American Economic Review*, Vol. 103/6, pp. 2530-2553, <http://dx.doi.org/10.1257/aer.103.6.2530>. [30]
- Romer, D. (2011), “What Have We Learned about Fiscal Policy from the Crisis? *”, in Blanchard, O., A. Spence and J. Stiglitz (eds.), *In the Wake of the Crisis: Leading Economists Reassess Economic Policy*, The MIT Press, Cambridge. [10]
- Sahm, C., M. Shapiro and J. Slemrod (2010), *Check in the Mail or More in the Paycheck: Does the Effectiveness of Fiscal Stimulus Depend on How It Is Delivered?*, National Bureau of Economic Research, Cambridge, MA, <http://dx.doi.org/10.3386/w16246>. [29]
- Sancak, C., J. Xing and R. Velloso (2010), “Tax Revenue Response to the Business Cycle”, *IMF Working Papers*, Vol. 10/71, p. i, <http://dx.doi.org/10.5089/9781451982145.001>. [36]
- Scheve, K. and D. Stasavage (2012), “Democracy, War, and Wealth: Lessons from Two Centuries of Inheritance Taxation”, *American Political Science Review* February, <http://dx.doi.org/10.1017/S0003055411000517>. [43]
- Scheve, K. and D. Stasavage (2010), “The Conscription of Wealth: Mass Warfare and the Demand for Progressive Taxation”, *International Organization*, Vol. 64, pp. 529–61. [48]
- Seelkopf, L., H. Lierse and C. Schmitt (2016), “Trade liberalization and the global expansion of modern taxes”, *Review of International Political Economy*, Vol. 23/2, pp. 208-231, <http://dx.doi.org/10.1080/09692290.2015.1125937>. [42]
- Steel, I. and D. Phillips (2020), “How tax officials in lower-income countries can respond to the coronavirus pandemic”, *ODI Briefing Note*, <https://www.odi.org/publications/16816-how-tax-officials-lower-income-countries-can-respond-coronavirus-pandemic> (accessed on 8 April 2020). [22]
- UNCTAD (2020), *The Covid-19 Shock to Developing Countries: Towards a “whatever it takes” programme for the two-thirds of the world’s population being left behind*, https://unctad.org/en/PublicationsLibrary/gds_tdr2019_update_coronavirus.pdf (accessed on 8 April 2020). [8]
- Wong, C. (2011), “The Fiscal Stimulus Programme and Public Governance Issues in China”, *OECD Journal on Budgeting*, Vol. 11/3, <http://dx.doi.org/10.1787/16812336>. [28]

Contact

OECD Centre for Tax Policy and Administration (✉ ctp.contact@oecd.org)

This paper is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Note by Turkey

The information in this document with reference to « Cyprus » relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union

The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.