

OECD SECRETARY-GENERAL TAX REPORT TO G20 FINANCE MINISTERS AND CENTRAL BANK GOVERNORS

Italy, October 2021



G20 

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Table of contents

Introduction	4
The Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy	4
Tax Policy and Climate Change	6
Developing Countries and the OECD/G20 Inclusive Framework on BEPS	6
Tax and Fiscal Policy after the COVID-19 Crisis	7
Implementation of Tax Transparency and BEPS Minimum Standards	8
Attachment A. Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy	10
Introduction	10
Pillar One	10
Pillar Two	12
Annex. Detailed Implementation Plan	15
Attachment B. Tax Policy and Climate Change	17
Attachment C. Developing Countries and the OECD/G20 Inclusive Framework on BEPS	49
Attachment D. Tax and Fiscal Policy after the COVID-19 Crisis	113

Introduction

In July, I reported to you that more than 130 member jurisdictions of the OECD/G20 Inclusive Framework on BEPS (Inclusive Framework), representing more than 90% of global GDP, had joined the *Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy* (Statement). A number of points in the Statement needed to be finalised along with a plan for implementation of the new rules. **Following intensive work over the past months, I can report to you today that 136 out of 140 members of the Inclusive Framework have reached a political agreement on the Two-Pillar Solution as well as a Detailed Implementation Plan¹ (Attachment A).**

This major achievement will fundamentally transform the international tax landscape within which multinational enterprises operate by reallocating certain profits to markets and by putting a floor on tax competition so as to ensure that at least a minimum amount of tax is paid.

I am also pleased to deliver to you three reports on tax issues that you have requested: *Tax Policy and Climate Change* (prepared with the IMF); *Developing Countries and the OECD/G20 Inclusive Framework on BEPS*; and *Tax and Fiscal Policies after the COVID-19 Crisis*. These reports are included as attachments to this report.

The scope of the work on international tax and the interest that it has attracted both at the highest political levels and with the public demonstrates that the G20's efforts to shape the international tax architecture over the past decade have had real impact. Taxation has become a global issue, and is interwoven with the most pressing concerns facing the world – climate change, the COVID-19 pandemic and meeting the Sustainable Development Goals. These are all issues that demand multilateral solutions, and the success of Inclusive Framework members in agreeing the Two-Pillar Solution shows what can be achieved through a spirit of co-operation and compromise. **The leadership of the G20 has been instrumental to this success, and your unity and resolve will be counted on as we move forward.**

The Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy

The Two-Pillar Solution aims to ensure a fairer distribution of profits and taxing rights among countries with respect to the largest MNEs – with this agreement more than USD 125 billion of residual profit will be reallocated to market jurisdictions under Pillar One and around USD 150 billion of additional revenue are expected from Pillar 2. Tax certainty is a key aspect of the new rules, which include a mandatory and binding dispute resolution process for Pillar One; developing countries will be able to benefit from an elective process, ensuring that the rules are not too onerous for low-capacity countries. Countries will be able to use the global minimum tax of Pillar Two to protect their tax bases (the GloBE rules) – this does not eliminate tax competition, but it does set multilaterally agreed limitations on it. Pillar Two also protects the right of developing countries to tax certain base-eroding payments (like interest and royalties) when they are not taxed up to the minimum rate.

¹ OECD (2021), *Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy – 8 October 2021*, OECD, Paris, www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.htm.

Key Elements of the Two-Pillar Solution	
Pillar One	Pillar Two
Taxing rights over 25% of the residual profit of the largest and most profitable MNEs would be re-allocated to the jurisdictions where the customers and users of those MNEs are located; a lower threshold is set for re-allocating profit to smaller, developing economies	GloBE rules provide a global minimum tax of 15% on all MNEs with annual revenue over 750 million euros
Tax certainty through mandatory and binding dispute resolution, with an elective regime to accommodate certain low-capacity countries	Requirement for all jurisdictions that apply a nominal corporate income tax rate below 9% to interest, royalties and a defined set of other payments to implement the "Subject to Tax Rule" into their bilateral treaties with developing Inclusive Framework members when requested to, so that their tax treaties cannot be abused.
Provision for a simplified and streamlined approach to the application of the arm's length principle to in-country baseline marketing and distribution activities, with a particular focus on the needs of low capacity countries (Amount B).	Carve-out to accommodate tax incentives for substantial business activities
Removal and standstill of Digital Services Taxes and other relevant similar measures	

All Inclusive Framework members should be congratulated for the dedication and spirit of compromise they have demonstrated in the past months and years, resulting in this landmark achievement. While a small number of Inclusive Framework members have not yet joined the Two-Pillar Solution, the OECD continues to work with them to bridge any remaining differences, understanding that the terms of the Two-Pillar Solution are the basis for moving forward.

With the Two-Pillar Solution and the Detailed Implementation Plan, Inclusive Framework members are positioned to move quickly to implementation in domestic law and through the negotiation, signature and ratification of the multilateral instruments necessary to adjust their treaty relationships. Swift implementation is key to stabilising the international tax architecture and avoiding damaging trade disputes that could result from unilateral action. The Detailed Implementation Plan provides an ambitious timeline for the completion of the remaining work by 2023. Capacity building support will be provided to developing countries to facilitate their implementation.

Target deadlines	
Pillar One	Pillar Two
Early 2022 – text of a multilateral Convention (MLC) and Explanatory Statement to implement Amount A of Pillar One	November 2021 – Model rules to define scope and mechanics for the GloBE rules
Early 2022 – Model rules for domestic legislation necessary for the implementation of Pillar One	November 2021 – Model treaty provision to give effect to the subject to tax rule
Mid-2022 – high-level signing ceremony for the multilateral Convention	Mid-2022 – multilateral instrument (MLI) for implementation of the STTR in relevant bilateral treaties
End 2022 – finalisation of work on Amount B for Pillar One	End 2022 – Implementation framework to facilitate co-ordinated implementation of the GloBE rules
2023 Implementation of the Two-Pillar Solution	

Tax Policy and Climate Change

A progressive transition to net zero greenhouse gas emissions by around the middle of the century is essential for containing the risks of dangerous climate change. Limiting global warming to 1.5°- 2°C, the central goal of the 2015 Paris Agreement, will require climate policy packages that drive transformative changes in production and consumption patterns. While some policies apply an explicit price to carbon emissions, other policies have the effect of creating an implicit price, with policy mixes depending on countries' specific economic circumstances. With G20 countries accounting for around 80% of greenhouse gas emissions, you are well placed to take forward a structured and systematic dialogue on the role of implicit and explicit carbon pricing that can facilitate greater co-operation among G20 members.

At the G20 High Level Tax Symposium held in Venice on 9 July 2021, Ministers observed a relative dearth of comparable data on the stringency of greenhouse gas mitigation policies across countries where these take the form of implicit carbon prices. Explicit carbon prices are relatively well mapped and understood, but in order to achieve a more complete picture of the state of mitigation policies for the purposes of cross-country comparisons, a stocktake of mitigation policies other than through explicit pricing instruments is needed, and where possible their implicit carbon-price equivalent estimated. Following the Symposium, I wrote to Ministers of Finance of all OECD and G20 countries, to propose an OECD/G20 initiative, building on the governance structures developed in the context of the Inclusive Framework, seizing on the increasing momentum around the OECD's climate work, including the International Programme for Action on Climate (IPAC). The aim would be to create a multilateral platform for the improved measurement and assessment of emission reduction policies. I will revert to you with a detailed plan to move this forward rapidly.

The report on *Tax Policy and Climate Change* (Attachment B), produced by the IMF and the OECD, provides: (i) a stocktake of the carbon prices from carbon taxes, emissions trading systems and fuel taxes today; (ii) an assessment of the extent to which explicit carbon pricing or equivalent mitigation policies are needed, and their environmental and broader economic impacts; (iii) a discussion of comprehensive mitigation strategies; and (iv) a discussion of border carbon adjustments (BCAs), international carbon pricing co-ordination, climate clubs, and a possible Inclusive Framework.

Developing Countries and the OECD/G20 Inclusive Framework on BEPS

In April 2021, you reaffirmed your engagement to support developing jurisdictions in strengthening the capacity to build sustainable tax revenue bases. The COVID-19 pandemic has had a huge impact on the health of both people and economies, with developing countries hit the hardest. For developing countries with limited fiscal space and heavy debt burdens, balancing the need to provide income support and collect revenue to finance spending has been extremely challenging.

The pace and scale of progress in international tax reform and intergovernmental co-operation has meant that many developing countries are on a steep learning curve. The report *Developing Countries and the OECD/G20 Inclusive Framework on BEPS* (Attachment C) is intended to help the G20 consolidate progress by checking that the Inclusive Framework's strong coalition of countries continues to advance together and converge on the design and implementation of the global tax rules by paying particular attention to the needs of lower income/lower capacity countries in the Inclusive Framework.

The report:

- Takes stock of developing countries' progress in their participation in the Inclusive Framework
- Considers the existing international tax norms and guidance in relation to the capacities and priorities of developing countries, as well as their domestic resource mobilisation (DRM) needs.

Given the critical importance of the taxation of natural resources, there is a cross-cutting focus on this topic

- Examines the support to developing countries aimed at boosting capacity
- Analyses the inclusivity of the Inclusive Framework, including its existing governance arrangements, and
- Sets out developing countries' views on the future of the Inclusive Framework in the context of their DRM priorities, whilst acknowledging the Inclusive Framework mandate is dedicated to BEPS.

As part of the process of developing the report, extensive consultation was undertaken with developing countries, including both members and non-members of the Inclusive Framework, involving participation from some 675 government officials from 155 jurisdictions. In addition to the formal consultation events, the OECD has also gathered input from developing countries and development partners through its bilateral capacity building and technical assistance programmes which are delivered in partnership with the African Tax Administration Forum (ATAF) and World Bank Group (WBG).

Tax and Fiscal Policy after the COVID-19 Crisis

Today, most G20 economies are in their recovery phase during which they will need to create the conditions for robust, resilient and inclusive economic growth, which will be essential in supporting government finances in the future. Tax policy is a key component of governments' strategies to respond to the pandemic and build a sustainable and inclusive recovery. At your request the OECD produced two earlier reports for the G20 in [April 2020](#) and [April 2021](#) on tax policy and the COVID-19 crisis. I am pleased to present a new report *Tax and Fiscal Policy after the COVID-19 Crisis* (Attachment D), that highlights some of the implications for public finances, and of tax systems in particular, of the COVID-19 crisis and a range of broader structural trends and challenges that countries face, such as the impact of ageing populations, digitalisation, and the need for decarbonisation, among other challenges.

The report aims to frame an ongoing discussion on how countries can work towards ensuring that their tax and spending policies support inclusive and sustainable economic growth in the post-COVID environment. In particular, the report underscores how reforming countries' public finance strategies will involve a combination of measures to support sustainable tax revenues and improve the quality of public spending, including through improved governance of public finances. The report focuses in particular on taxation, and aims to initiate a discussion on the tax policy design options that countries may wish to consider that can foster inclusive growth that is both fiscally and environmentally sustainable over the medium to long term. The mix of tax reforms will have to be complemented with well-designed compensatory measures to ensure affordability of the measures taken. The optimal combination of fiscal instruments will vary significantly depending on a range of factors in different countries and the specific challenges they face, including GDP growth, level of development, inequalities and fiscal space, current levels and structures of taxation and spending, and the nature of specific long-term structural trends.

Implementation of Tax Transparency and BEPS Minimum Standards

While the major issues facing governments have been prioritised by the OECD in developing analysis, guidance and solutions this past year, the core work of promoting the implementation of the tax transparency and BEPS standards has continued. The highlights of this work are set out below.

Tax Transparency

Since 2009, the G20 has given its strong backing to the global progress in transparency and exchange of information for tax purposes with great achievements, beginning with the end of bank secrecy for tax purposes. With 163 members – more than half of which are developing jurisdictions – and under your mandate, the OECD-hosted Global Forum on Transparency and Exchange of Information for Tax Purposes (Global Forum) conducts peer reviews of the global implementation of the Automatic Exchange of Financial Account Information in Tax Matters (AEOI) and Exchange of Information on Request (EOIR) standards.

The implementation of both standards is on good track:

- Of the 100 jurisdictions that committed to commence exchanges in 2017 or 2018, virtually all (98) have in place an international legal framework that is fully in accordance with the AEOI Terms of Reference and a vast majority (88) have a domestic legal framework that has been determined to be either “In Place” or “In Place But Needs Improvement”. Since last year, several jurisdictions have made legislative amendments to address recommendations and an update report will be published this year.
- Regarding EOIR, 85% of the jurisdictions, which had been reviewed by the end of 2020, have received a satisfactory overall rating (“Compliant” or “Largely Compliant”), 12% have been assessed as Partially Compliant and 3% as Non-Compliant. In 2021, the reports on 10 additional members are being finalised with the issuance of determinations on the legal framework. The ratings will be assigned as soon as onsite visits, currently suspended because of the pandemic, can be held to complete the assessment of the effectiveness of the EOIR implementation.

The impact of these standards is significant:

- In 2020, information on at least of 75 million financial accounts worldwide, covering total assets of nearly EUR 9 trillion was exchanged automatically. Note that these figures do not include information for all jurisdictions engaged in AEOI because the COVID-19 pandemic resulted in the extension of the exchange deadline and the difficulties in reporting statistics by some jurisdictions; this is why they reflect slightly lower figures than in the past;
- **A total of EUR 112 billion of additional** revenues (tax, interest, penalties) have been identified so far, thanks to voluntary disclosure programmes and similar initiatives and offshore investigations. Of this amount, AEOI helped to deliver at least EUR 3 billion of additional tax revenue.

As the Global Forum celebrates the 10th anniversary of its capacity building programme in 2021, demand for capacity-building support remains strong with over 70 jurisdictions having received technical assistance in 2021 to date, 31 of which tailored to AEOI. The Global Forum’s regional initiatives also manifest growing progress. Globally, developing countries have identified nearly EUR 30 billion through voluntary disclosure programmes and offshore tax investigations since 2009.

List of jurisdictions that have not satisfactorily implemented the tax transparency standards

To ensure a level playing field, you have requested the OECD to regularly report on the jurisdictions that fail to comply with the tax transparency standards. Since December 2018, the number of identified

jurisdictions has decreased from 15 to 5 today.² The Global Forum is working closely with all of these jurisdictions to provide the necessary assistance and guidance to ensure their progress and a global level playing field. A new report on the progress made and to identify any jurisdictions that still do not comply will be delivered to you by the time of your next meeting.

BEPS Minimum Standards

While the Inclusive Framework's work on the tax challenges arising from digitalisation dominated its work programme over the last year, steady progress was also made on other aspects of the fight against base erosion and profit shifting, as reflected in the *OECD/G20 Inclusive Framework on BEPS: Progress Report July 2020-September 2021*³.

Five years have passed since implementation of the BEPS package began, and notable progress has been achieved under Actions 5, 6, 13 and 14, which comprise the four BEPS minimum standards.

Action 5 on Harmful Tax Practices	Action 6 on Tax Treaty Abuse	Action 13 on Country-by-Country (CbC) Reporting	Action 14 on Mutual Agreement Procedure
<ul style="list-style-type: none"> • Over 300 preferential regimes reviewed, virtually all amended or abolished • Over 36 000 information exchanges on tax rulings and peer reviews on 124 jurisdictions • Review of substance legislation of 12 no tax or only nominal tax jurisdictions and first exchanges in March 2021 	<ul style="list-style-type: none"> • 3rd peer review report on Action 6 published in April 2021 • Treaty networks modified to comply with Action 6 by large majority of Inclusive Framework members • Many are relying on the BEPS multilateral instrument (MLI), which now covers 96 jurisdictions 	<ul style="list-style-type: none"> • More than 3 000 bilateral relationships for CbC report exchanges are now in place • Over 100 jurisdictions have introduced CbCR legislation 	<ul style="list-style-type: none"> • Ensure tax disputes resolution in a timely, effective and efficient manner • 82 stage 1 peer review reports and 45 stage 1 + stage 2 peer monitoring reports have now been finalised • Significant increase in the number of resolved MAP cases in almost all jurisdictions under review

² Anguilla, Dominica, Niue, Sint Maarten and Trinidad and Tobago.

³ OECD (2021), *OECD/G20 Inclusive Framework on BEPS: Progress Report July 2020-September 2021*, OECD, Paris, www.oecd.org/tax/beps/oecd-g20-inclusive-framework-on-beps-progress-report-july-2020-september-2021.htm.

Attachment A. Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy

This document sets out the Statement which has been discussed in the OECD/G20 Inclusive Framework on BEPS. [136 member jurisdictions](#) have agreed to it as of 8 October 2021. It is noted that not all Inclusive Framework members have joined as of today.

Introduction

The OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (IF) has agreed a two-pillar solution to address the tax challenges arising from the digitalisation of the economy. The agreed components of each Pillar are described in the following paragraphs.

A detailed implementation plan is provided in the Annex.

Pillar One

Scope

In-scope companies are the multinational enterprises (MNEs) with global turnover above 20 billion euros and profitability above 10% (i.e. profit before tax/revenue) calculated using an averaging mechanism with the turnover threshold to be reduced to 10 billion euros, contingent on successful implementation including of tax certainty on Amount A, with the relevant review beginning 7 years after the agreement comes into force, and the review being completed in no more than one year.

Extractives and Regulated Financial Services are excluded.

Nexus

There will be a new special purpose nexus rule permitting allocation of Amount A to a market jurisdiction when the in-scope MNE derives at least 1 million euros in revenue from that jurisdiction. For smaller jurisdictions with GDP lower than 40 billion euros, the nexus will be set at 250 000 euros.

The special purpose nexus rule applies solely to determine whether a jurisdiction qualifies for the Amount A allocation.

Compliance costs (incl. on tracing small amounts of sales) will be limited to a minimum.

Quantum

For in-scope MNEs, 25% of residual profit defined as profit in excess of 10% of revenue will be allocated to market jurisdictions with nexus using a revenue-based allocation key.

Revenue sourcing

Revenue will be sourced to the end market jurisdictions where goods or services are used or consumed. To facilitate the application of this principle, detailed source rules for specific categories of transactions will be developed. In applying the sourcing rules, an in-scope MNE must use a reliable method based on the MNE's specific facts and circumstances.

Tax base determination

The relevant measure of profit or loss of the in-scope MNE will be determined by reference to financial accounting income, with a small number of adjustments.

Losses will be carried forward.

Segmentation

Segmentation will occur only in exceptional circumstances where, based on the segments disclosed in the financial accounts, a segment meets the scope rules.

Marketing and distribution profits safe harbour

Where the residual profits of an in-scope MNE are already taxed in a market jurisdiction, a marketing and distribution profits safe harbour will cap the residual profits allocated to the market jurisdiction through Amount A. Further work on the design of the safe harbour will be undertaken, including to take into account the comprehensive scope.

Elimination of double taxation

Double taxation of profit allocated to market jurisdictions will be relieved using either the exemption or credit method.

The entity (or entities) that will bear the tax liability will be drawn from those that earn residual profit.

Tax certainty

In-scope MNEs will benefit from dispute prevention and resolution mechanisms, which will avoid double taxation for Amount A, including all issues related to Amount A (e.g. transfer pricing and business profits disputes), in a mandatory and binding manner. Disputes on whether issues may relate to Amount A will be solved in a mandatory and binding manner, without delaying the substantive dispute prevention and resolution mechanism.

An elective binding dispute resolution mechanism will be available only for issues related to Amount A for developing economies that are eligible for deferral of their BEPS Action 14 peer review⁴ and have no or low levels of MAP disputes. The eligibility of a jurisdiction for this elective mechanism will be reviewed regularly; jurisdictions found ineligible by a review will remain ineligible in all subsequent years.

⁴ The conditions for being eligible for a deferral of the BEPS Action 14 peer review are provided in paragraph 7 of the current Action 14 Assessment Methodology published as part of [the Action 14 peer review documents](#).

Amount B

The application of the arm's length principle to in-country baseline marketing and distribution activities will be simplified and streamlined, with a particular focus on the needs of low capacity countries. This work will be completed by the end of 2022.

Administration

The tax compliance will be streamlined (including filing obligations) and allow in-scope MNEs to manage the process through a single entity.

Unilateral measures

The Multilateral Convention (MLC) will require all parties to remove all Digital Services Taxes and other relevant similar measures with respect to all companies, and to commit not to introduce such measures in the future. No newly enacted Digital Services Taxes or other relevant similar measures will be imposed on any company from 8 October 2021 and until the earlier of 31 December 2023 or the coming into force of the MLC. The modality for the removal of existing Digital Services Taxes and other relevant similar measures will be appropriately coordinated. The IF notes reports from some members that transitional arrangements are being discussed expeditiously.

Implementation

The MLC through which Amount A is implemented will be developed and opened for signature in 2022, with Amount A coming into effect in 2023. A detailed implementation plan is set out in the Annex.

Pillar Two

Overall design

Pillar Two consists of:

- two interlocking domestic rules (together the Global anti-Base Erosion Rules (GloBE) rules): (i) an Income Inclusion Rule (IIR), which imposes top-up tax on a parent entity in respect of the low taxed income of a constituent entity; and (ii) an Undertaxed Payment Rule (UTPR), which denies deductions or requires an equivalent adjustment to the extent the low tax income of a constituent entity is not subject to tax under an IIR; and
- a treaty-based rule (the Subject to Tax Rule (STTR)) that allows source jurisdictions to impose limited source taxation on certain related party payments subject to tax below a minimum rate. The STTR will be creditable as a covered tax under the GloBE rules.

Rule status

The GloBE rules will have the status of a common approach.

This means that IF members:

- are not required to adopt the GloBE rules, but, if they choose to do so, they will implement and administer the rules in a way that is consistent with the outcomes provided for under Pillar Two, including in light of model rules and guidance agreed to by the IF;
- accept the application of the GloBE rules applied by other IF members including agreement as to rule order and the application of any agreed safe harbours.

Scope

The GloBE rules will apply to MNEs that meet the 750 million euros threshold as determined under BEPS Action 13 (country by country reporting). Countries are free to apply the IIR to MNEs headquartered in their country even if they do not meet the threshold.

Government entities, international organisations, non-profit organisations, pension funds or investment funds that are Ultimate Parent Entities (UPE) of an MNE Group or any holding vehicles used by such entities, organisations or funds are not subject to the GloBE rules.

Rule design

The IIR allocates top-up tax based on a top-down approach subject to a split-ownership rule for shareholdings below 80%.

The UTPR allocates top-up tax from low-tax constituent entities including those located in the UPE jurisdiction. The GloBE rules will provide for an exclusion from the UTPR for MNEs in the initial phase of their international activity, defined as those MNEs that have a maximum of EUR 50 million tangible assets abroad and that operate in no more than 5 other jurisdictions.⁵ This exclusion is limited to a period of 5 years after the MNE comes into the scope of the GloBE rules for the first time. For MNEs that are in scope of the GloBE rules when they come into effect the period of 5 years will start at the time the UTPR rules come into effect.

ETR calculation

The GloBE rules will operate to impose a top-up tax using an effective tax rate test that is calculated on a jurisdictional basis and that uses a common definition of covered taxes and a tax base determined by reference to financial accounting income (with agreed adjustments consistent with the tax policy objectives of Pillar Two and mechanisms to address timing differences).

In respect of existing distribution tax systems, there will be no top-up tax liability if earnings are distributed within 4 years and taxed at or above the minimum level.

Minimum rate

The minimum tax rate used for purposes of the IIR and UTPR will be 15%.

Carve-outs

The GloBE rules will provide for a formulaic substance carve-out that will exclude an amount of income that is 5% of the carrying value of tangible assets and payroll. In a transition period of 10 years, the amount of income excluded will be 8% of the carrying value of tangible assets and 10% of payroll, declining annually by 0.2 percentage points for the first five years, and by 0.4 percentage points for tangible assets and by 0.8 percentage points for payroll for the last five years.

The GloBE rules will also provide for a *de minimis* exclusion for those jurisdictions where the MNE has revenues of less than EUR 10 million and profits of less than EUR 1 million.

⁵ An MNE is considered to operate in a jurisdiction if that MNE has a Constituent Entity in that jurisdiction as defined for purposes of the GloBE rules.

Other exclusions

The GloBE rules also provide for an exclusion for international shipping income using the definition of such income under the OECD Model Tax Convention.

Simplifications

To ensure that the administration of the GloBE rules are as targeted as possible and to avoid compliance and administrative costs that are disproportionate to the policy objectives, the implementation framework will include safe harbours and/or other mechanisms.

GILTI co-existence

It is agreed that Pillar Two will apply a minimum rate on a jurisdictional basis. In that context, consideration will be given to the conditions under which the US GILTI regime will co-exist with the GloBE rules, to ensure a level playing field.

Subject to tax rule (STTR)

IF members recognise that the STTR is an integral part of achieving a consensus on Pillar Two for developing countries.⁶ IF members that apply nominal corporate income tax rates below the STTR minimum rate to interest, royalties and a defined set of other payments would implement the STTR into their bilateral treaties with developing IF members when requested to do so.

The taxing right will be limited to the difference between the minimum rate and the tax rate on the payment.

The minimum rate for the STTR will be 9%.

Implementation

Pillar Two should be brought into law in 2022, to be effective in 2023, with the UTPR coming into effect in 2024. A detailed implementation plan is set out in the Annex.

⁶ For this purpose, developing countries are defined as those with a GNI per capita, calculated using the [World Bank Atlas method](#), of USD 12 535 or less in 2019 to be regularly updated.

Annex. Detailed Implementation Plan

This Annex describes the work needed to implement the two-pillar solution described in the body of the Statement. It also sets out a timeline for that process, including the key milestones for the Inclusive Framework (IF) going forward, noting that bespoke technical assistance will be available to developing countries to support all aspects of implementation. IF members recognise the ambitious nature of the timelines contained in this implementation plan and are fully committed to use all efforts within the context of their legislative process in achieving that goal.

Pillar One

Amount A, the removal of all Digital Service Taxes and other relevant similar measures on all companies, and Amount B will be implemented under the Pillar One solution, as described below.

Amount A

Amount A will be implemented through a Multilateral Convention (MLC), and where necessary by way of correlative changes to domestic law, with a view to allowing it to come into effect in 2023.

Multilateral Convention

In order to facilitate swift and consistent implementation, an MLC will be developed to introduce a multilateral framework for all jurisdictions that join, regardless of whether a tax treaty currently exists between those jurisdictions. The MLC will contain the rules necessary to determine and allocate Amount A and eliminate double taxation, as well as the simplified administration process, the exchange of information process and the processes for dispute prevention and resolution in a mandatory and binding manner between all jurisdictions, with the appropriate allowance for those jurisdictions for which an elective binding dispute resolution mechanism applies with respect to issues related to Amount A, thereby ensuring consistency and certainty in the application of Amount A and certainty with respect to issues related to Amount A. The MLC will be supplemented by an Explanatory Statement that describes the purpose and operation of the rules and processes. Where a tax treaty exists between parties to the MLC, that tax treaty will remain in force and continue to govern cross-border taxation outside Amount A, but the MLC will address inconsistencies with existing tax treaties to the extent necessary to give effect to the solution with respect to Amount A. The MLC will also address interactions between the MLC and future tax treaties. Where there is no tax treaty in force between parties, the MLC will create the relationship necessary to ensure the effective implementation of all aspects of Amount A.

The IF has mandated the Task Force on the Digital Economy (TFDE) to define and clarify the features of Amount A (e.g., elimination of double taxation, Marketing and Distribution Profits Safe Harbour) and develop the MLC and negotiate its content, so that all jurisdictions that have committed to the Statement will be able to participate. The TFDE will seek to conclude the text of the MLC and its Explanatory Statement by early 2022, so that the MLC is quickly open to signature and a high-level signing ceremony can be organised by mid-2022. Following its signature, jurisdictions will be expected to ratify the MLC as soon as possible, with the objective of enabling it to enter into force and effect in 2023 once a critical mass of jurisdictions as defined by the MLC have ratified it.

Removal and Standstill of All Digital Services Taxes and Other Relevant Similar Measures

The MLC will require all parties to remove all Digital Services Taxes and other relevant similar measures with respect to all companies, and to commit not to introduce such measures in the future. A detailed

definition of what constitutes relevant similar measures will be finalised as part of the adoption of the MLC and its Explanatory Statement.

Domestic Law Changes

IF members may need to make changes to domestic law to implement the new taxing rights over Amount A. To facilitate consistency in the approach taken by jurisdictions and to support domestic implementation consistent with the agreed timelines and their domestic legislative procedures, the IF has mandated the TFDE to develop model rules for domestic legislation by early 2022 to give effect to Amount A. The model rules will be supplemented by commentary that describes the purpose and operation of the rules.

Amount B

The IF has mandated Working Party 6 and the FTA MAP Forum to jointly finalise the work on Amount B by end of 2022. The technical work will start by defining the in-country baseline marketing and distribution activities in scope of Amount B. Working Party 6 and the FTA MAP Forum will then jointly develop the rest of Amount B components, with a view of releasing Amount B final deliverables by end of 2022.

Pillar Two

Model rules to give effect to the GloBE rules will be developed by the end of November 2021. These model rules will define the scope and set out the mechanics of the GloBE rules. They will include the rules for determining the ETR on a jurisdictional basis and the relevant exclusions, such as the formulaic substance-based carve-out. The model rules will also cover administrative provisions that address an MNE's filing obligations and the use of any administrative safe-harbours. The model rules will further include transition rules. The model rules are supplemented by commentary that explains the purpose and operation of the rules, and addresses the need for a switch-over rule in certain treaties and in circumstances that otherwise commit the contracting parties to the use of the exemption method.

A model treaty provision to give effect to the STTR will be developed by the end of November 2021. The model treaty provision will be supplemented by commentary that explains the purpose and the operation of the STTR. A process to assist in implementing the STTR will be agreed.

A multilateral instrument (MLI) will be developed by the IF by mid-2022 to facilitate the swift and consistent implementation of the STTR in relevant bilateral treaties.

At the latest by the end of 2022 an implementation framework will be developed that facilitates the coordinated implementation of the GloBE rules. This implementation framework will cover agreed administrative procedures (e.g. detailed filing obligations, multilateral review processes) and safe-harbours to facilitate both compliance by MNEs and administration by tax authorities. As part of the work on the implementation framework, IF members will consider the merits and possible content of a multilateral convention in order to further ensure co-ordination and consistent implementation of the GloBE rules.

Consultations

Within the constraints of the timeline set forth in this implementation plan, the work will continue to progress in consultation with stakeholders.

Attachment B. Tax Policy and Climate Change

**IMF/OECD Report for the G20 Finance Ministers and Central Bank Governors
September 2021, Italy**

Table of contents

Overview	20
Stocktake: Effective carbon rates in OECD and G20 countries	25
The potential impacts of carbon pricing	31
Comprehensive climate change mitigation strategies	36
BCAs and international coordination	39
Support for continued dialogue on greenhouse gas emissions pricing and related climate policy instruments	42
Annex A. Global and G20 emissions commitments	44
Annex B. BCAs – Design choices and alternatives	46

Overview

A progressive transition to net zero greenhouse gas emissions by around the middle of the century is essential for containing the risks of dangerous climate change. Limiting global warming to 1.5°-2°C, the central goal of the 2015 Paris Agreement, will require climate policy packages that drive transformative changes in production and consumption patterns.

Current emissions commitments and policies fall short of the ambitious policy action that is needed (see Annex A). Global carbon dioxide (CO₂) and other greenhouse gases must be cut by a quarter to a half below 2019 levels by 2030 to put the world on an emissions pathway consistent with climate stabilisation targets. Parties to the 2015 Paris Agreement are in the process of submitting revised mitigation commitments in their Nationally Determined Contributions (NDCs) ahead of COP26 in November 2021. Many are announcing emission neutrality targets by mid-century, though at present many intermediate emissions targets for 2030 are not aligned with these longer run neutrality goals. Much stronger policy action is needed—containing temperature rises to below 2°C will require a global explicit carbon price or measures resulting in an equivalent implicit carbon price, on top of existing policies, rising to around USD 75 per tonne of CO₂ or more by 2030 and increasing further beyond 2030.¹ In many cases, the policies announced or implemented by countries to date are only scratching the surface of what is needed to implement intermediate, and ultimately net zero, emissions targets.

While some policies apply an explicit price to carbon emissions, other policies have the effect of creating an implicit price, with policy mixes depending on countries' specific economic circumstances. Carbon taxes and emissions trading systems result in explicit carbon prices. Some taxes on energy use, regulations that discourage carbon emissions and subsidies for low or zero carbon technologies or behaviours result in implicit carbon prices. Most jurisdictions deploy a range of both implicit and explicit price instruments, with the policy mix depending on their specific circumstances such as the level of economic development or the availability of and access to clean technologies. A key challenge at the domestic level is to balance explicit carbon pricing and other reinforcing sectoral instruments, like feebates and regulations, which can be less efficient but likely have greater public acceptability due to their smaller or less direct impact on energy prices. Other supporting elements include public investment and technology policies; productive and equitable use of carbon pricing revenues; just transition assistance for vulnerable households, workers, and regions; measures to address industrial competitiveness; and pricing schemes or other mitigation policies for broader greenhouse gas emissions.

Explicit pricing of greenhouse gases, including carbon, is particularly conducive to cost-effective climate change mitigation, provided that it is inclusive and supports economic development. Pricing could be applied to all greenhouse gases in principle but in practice is being applied principally to carbon emissions. While countries have multiple mitigation instruments available to them, explicit carbon

¹See IMF (2019), *Fiscal Monitor: How to Mitigate Climate Change* and N. Stern and J. Stiglitz (2017), *Report of the High-Level Commission on Carbon Pricing*, Carbon Pricing Leadership Coalition, World Bank Group.

pricing is the only instrument that automatically promotes all mitigation opportunities, and strikes a cost-effective balance across these responses. At present, many of the cheapest energy sources generate high carbon emissions, but the harm to the climate is not reflected in their price. Implicit carbon prices are less visible than explicit prices, but they tend to be higher per unit of emissions reduction and they do not raise government revenue and, in some cases, require additional government expenditure.

To achieve maximum cost-effectiveness, explicit pricing should comprehensively cover fossil fuel and process emissions across the power, industry, transport, and building sectors, and other sources where practical. Synergies between phasing out fossil fuel subsidies and explicit carbon pricing should be exploited. Among other strengths (see Box 1), a robust and rising carbon price helps to mobilise private finance for mitigation investment and drive innovation in low-carbon alternative energy sources and processes, while at the same time being a valuable source of revenue. Where practical, pricing could be extended to other emissions sources, for example, fugitive emissions from extractives, net emissions from land use change, and agriculture, as emissions monitoring capacity is developed or on a proxy basis (i.e., based on outputs and default emission rates).

Judicious use of explicit carbon pricing revenues can make climate policy more inclusive and effective while containing the costs of clean energy transitions to the economy. Increasing explicit carbon prices within a broader policy package that cushions adverse impacts by delivering immediate benefits to vulnerable households, workers, firms and regions, can increase the chances of successful implementation. Appropriate revenue use will depend on countries' specific circumstances, but where revenues are used to lower burdensome taxes on labour income, or boost productive investment, this provides a benefit to the economy that counteracts the harmful effects of higher energy prices.

Carbon prices – implicit or explicit – today are well below the levels that will be needed to drive decarbonisation and meet the objectives of the Paris Agreement. Recent analysis on explicit prices from carbon taxes and emissions trading systems and implicit prices from taxes on energy use, shows that around 60% of CO₂-emissions from energy use across OECD and G20 countries are not subject to either a carbon tax, emissions trading system or fuel excise tax². Rates are lowest in the industry and electricity sectors, and are further weakened by fossil fuel support and where free permit allocation rules provide an advantage to carbon-intensive technologies. While the level of increased policy action needed varies from country to country, depending upon their level of ambition, energy mixes, and different starting points, reaching the emissions abatement objectives defined in nationally determined contributions (NDCs) requires measures equivalent to explicit carbon price increases of around USD 75/tCO₂ or more by 2030 in the majority of G20 countries (see below).

At the international level, action to scale up explicit carbon pricing is hampered by concerns about competitiveness, “carbon leakage” and free-riding, which underscores the importance of international cooperation.³ Existing measures to address competitiveness and leakage impacts of explicit carbon pricing (e.g., free allowance allocations) become less effective with deeper decarbonisation. Unilateral action to scale up carbon pricing and mitigation effort may also be deterred if countries are concerned that others may free ride and not enact sufficient mitigation measures. Pressure for border carbon adjustments (BCAs) to address competitiveness and leakage concerns is emerging with greater dispersion in explicit carbon prices across jurisdictions for carbon-intensive and trade-exposed sectors. BCAs are sometimes thought to create incentives to introduce explicit carbon prices in jurisdictions where they do not yet exist. However, their effectiveness at scaling up global mitigation is limited, as they price

² OECD (2021), *Effective Carbon Rates 2021: Pricing Carbon Emissions through Taxes and Emissions Trading*. OECD Publishing, Paris, <http://oe.cd/ECR2021>.

³ Carbon leakage, whereby foreign emissions increase because of the introduction of domestic climate policies, weakens the effectiveness of climate policies at reducing global emissions. It can also undermine political support for the implementation of climate policies.

only the small fraction of emissions embodied in traded products. International coordination, for example over minimum carbon prices, is potentially effective, though coordination needs to be equitable (accounting for countries differentiated responsibilities and respective capabilities) and pragmatic (recognizing national circumstances), meaning also that it may need to take a broader view of mitigation efforts, by considering both explicit and implicit carbon prices.

There is a need for improved measurement of different mitigation policy instruments and approaches. At the G20 High Level Tax Symposium held in Venice on 9 July 2020, Ministers observed a relative dearth of comparable data on the stringency of greenhouse gas mitigation policies across countries where these take the form of implicit carbon prices. Explicit carbon prices are relatively well mapped and understood, but in order to achieve a more complete picture of the state of mitigation policies for the purposes of cross-country comparisons, a stocktake of mitigation policies other than through explicit pricing instruments is needed, and where possible their implicit carbon-price equivalent estimated.

With G20 countries accounting for around 80% of greenhouse gas emissions, the G20 Finance Track is well placed to take forward a structured and systematic dialogue on the role of implicit and explicit carbon pricing that can facilitate greater cooperation among G20 members. With their ability to consider jointly the incentive, fiscal, and international coordination aspects of the policy challenge, G20 Finance Ministers and Central Bank Governors (FMCBG) have the potential to promote the use of pricing and supporting measures and ensure a better alignment between mitigation policies and decarbonisation goals. Such action would support ongoing efforts by G20 Energy and Environment Ministers, along with G20 Sherpas, to spur fossil fuel subsidy reform.

The G20 is also well placed to ensure the coherence of mitigation policies differentiated across countries, taking into account that the ultimate collective goal of net-zero emissions can only be reached with patterns and speed of adjustment that align with country-specific circumstances. Developing and sharing metrics and indicators on policy approaches is a pre-requisite to paving the way for common approaches at the international level. Assessing the relative merits of different responses to negative international spillovers – ranging from “carbon border adjustment mechanisms” to “carbon pricing floor agreements” and broader “climate clubs” – will help to strengthen cooperation with a view towards reaching our common climate goals.

Box 1. Strengths of explicit carbon pricing

Explicit carbon pricing:

- **Provides cross-the-board incentives for firms and households to reduce carbon-intensive energy use and shift to cleaner fuels:** This occurs as carbon pricing increases the price of carbon-intensive fuels, electricity, and consumer goods produced with such fuels and electricity.
- **Provides the essential price signal for mobilising private investment in clean technologies:** Pricing levels the playing field for emissions-saving technologies and helps to avoid lock-in of fossil fuel intensive investments (like coal generation plants), contributing to cost-effective abatement.
- **Is more flexible than regulatory approaches:** Unlike energy efficiency standards and other regulations, prices leave households and businesses a wide range of choices on how to cut emissions. This greater flexibility reduces costs because the government is generally less well

informed about the options available to emitters, particularly where different emitters would prefer different responses.

- **Provides ongoing mitigation incentives:** In the case of some policy tools, such as standards, the pressure to reduce emissions disappears once compliance with a standard is reached, whereas prices continue to induce mitigation effort as long as emissions are positive.
- **Reduces rebound effects:** Some instruments, such as energy efficiency standards, lead to increased energy usage. For example, improving the energy efficiency of an air-conditioning unit makes it cheaper to run and may therefore result in it being used more often, undoing some of the energy savings from the efficiency improvement, unless the price of energy use or of the emissions from energy use increase simultaneously.
- **Mobilises government revenue:** Unlike most other mitigation instruments, carbon pricing raises government revenues, and administrative costs of revenue collection can be lower than for many other fiscal instruments.
- **Generates domestic environmental co-benefits like reductions in local air pollution mortality:** Pricing carbon, like other mitigation instruments, results in cleaner air, which is a tangible and immediate benefit of reduced combustion of coal and motor fuels, especially in metropolitan areas.

The G20 Finance Ministers are well placed to advance a dialogue on various forms of pricing of greenhouse gases and broader climate mitigation policy mixes. To support an ongoing G20 dialogue on emissions pricing, Ministers may wish to request:

- improved measurement of countries' principal greenhouse gas mitigation policy responses through:
 - continued monitoring of explicit carbon pricing policies, including carbon taxes and emissions trading systems, and implicit carbon prices resulting from energy taxes and fossil fuel subsidies;
 - extending such monitoring by mapping and developing of new tools and indicators for the improved monitoring of economies' principal implicit carbon pricing policies (e.g., energy efficiency standards, emission regulations, feebates, clean energy subsidies, taxes on individual fuels, sectoral-based emissions pricing);
- sharing metrics and indicators for measuring countries carbon footprints;
- regular updates on implicit and explicit pricing measures consistent with countries' mitigation pledges and the impacts of pricing (e.g., on emissions, revenue, local air pollution mortality, economic welfare, energy prices);
- analysis of the incidence of energy price changes on households, industries, and employment in vulnerable sectors and regions, and of assistance measures designed to alleviate adverse consequences;
- dialogue on mechanisms to promote coordination, e.g. on minimum emissions pricing and on mitigation policy packages more broadly, among G20 members;
- exploring other areas of collaboration to elevate the role of emissions pricing in the transition to carbon neutrality, taking into account countries' different starting points and contexts, and avoiding negative spill-overs on trade relations, including proposals for climate clubs or an Inclusive Framework;

- discussion of the role of border carbon adjustments (BCAs) including their pros and cons versus other compensation measures; and
- further analysis of the potential impacts of rising disparities in carbon prices on carbon leakage and on countries' imports, exports, output and employment.

The rest of this note provides: (i) a stocktake of the carbon prices from carbon taxes, emissions trading systems and fuel taxes today; (ii) an assessment of the extent to which explicit carbon pricing or equivalent mitigation policies are needed, and their environmental and broader economic impacts; (iii) a discussion of comprehensive mitigation strategies; and (iv) a discussion of BCAs, international price coordination, climate clubs, and an Inclusive Framework.

Stocktake: Effective carbon rates in OECD and G20 countries

Policymakers seeking to price carbon explicitly can use carbon taxes or emissions trading systems. In addition, fuel excise taxes *de facto* result in an implicit carbon price, even if the rationale for these taxes may not be principally climate-related and the tax rate often is not aligned with each fuel's carbon content. Furthermore, fossil fuel subsidies can effectively lower carbon prices.

Current carbon price signals are often too low and poorly aligned with fuels' carbon content. A stocktake of the effective carbon rates resulting from fuel excise taxes (an implicit carbon price), and explicit prices from carbon taxes and emissions trading systems, and including subsidies delivered through preferential excise or carbon tax rates, shows that carbon pricing is gaining momentum. However, current prices generally remain low and vary across sectors and fuels in ways that align poorly with carbon emissions or with pollution profiles more broadly (Box 2). Fossil fuel subsidies continue to distort price signals and weigh on public budgets (Box 3). The stocktake points to reform options and priorities, as from a climate point of view – net of domestic environmental benefits – effective carbon prices should ideally be the same per unit of carbon content of all fuels in all sectors to minimise the costs of reducing carbon emissions.

Box 2. Stocktake of carbon taxes, emissions trading systems and fuel excise taxes

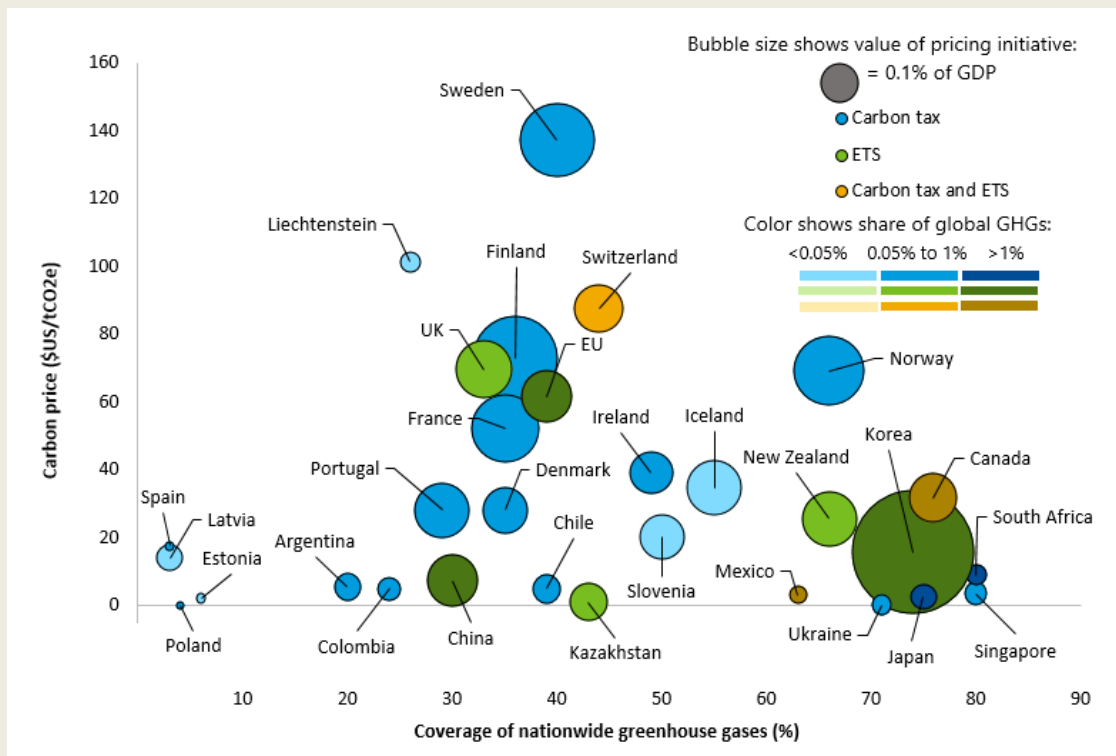
Carbon taxes: By imposing a charge on the carbon content of fossil fuel supply, carbon taxes are a straightforward carbon pricing instrument from an administrative perspective. They can be comprehensively applied, for example, at the point of processing or refining for coal, petroleum products, and natural gas. In addition, carbon taxes can provide certainty over the future trajectory of emissions prices, and revenues accrue directly to finance ministries.

Emissions trading systems: Under an emissions trading system (ETS), firms must acquire allowances to cover their emissions, the government fixes the supply of allowances, and allowance trading establishes the emissions price. Although trading systems to date have largely been applied to power generators and large industries, they could be extended midstream to include heating and transport fuels (the latter already being covered in a few systems). Mechanisms like price floors can reduce price uncertainty and allowance auctions can generate government revenues.

Fuel excise taxes: Fuel excise taxes create economic incentives similar to those of carbon taxes and emission permit prices, even if their primary objective may be to raise revenue. The strength of price-based incentives to reduce emissions depends on the rate and the base of the incentive, and on fuel price responsiveness, not on the stated policy intention. Fuel excise taxes can be seen as implicit carbon taxes.

Explicit carbon pricing is gaining momentum: For example, prices in the European Union's (EU) ETS have recently increased, Canada has announced it will increase its carbon prices to CAD 170 by 2030, Germany and China have introduced major pricing schemes this year, and Korea has a comprehensive pricing scheme. Figure 1 summarises explicit carbon pricing instruments (carbon taxes, emissions trading systems) at the national level as of 2021.

Figure 1. Selected explicit carbon pricing schemes, 2021



Note: Carbon prices are from 01 April 2021 from WBG. EU ETS price is from 19 July 2021 from EMBER. GHGs are from 2018. EU includes Norway, Iceland, Liechtenstein. Values less than 0.005% of GDP are of equal size for illustrative purposes. Canada's bubble reflects only the federal backstop, but the majority of their pricing uses provincial systems. The value of the UK's ETS is an estimation for 2021 based on a £50/tCO₂e price. Finland's transport fuels are priced at \$73/tCO₂e. Ireland's F-gases are priced at \$20/tCO₂e. Norway has a reduced rate on natural gas for EU ETS installations of \$4/tCO₂e. Norway and Mexico prices represent carbon price upper bounds. Lower bounds are \$3.9/tCO₂e and \$0.37/tCO₂e respectively. Switzerland's price is a weighted average between carbon price and ETS by emissions covered.

Source: World Bank, Climate Watch, Fund Staff Estimates, EMBER.

Carbon pricing discussions are often limited to carbon taxes and emissions trading systems, but it is useful for a stocktake of effective carbon prices to also consider fuel excise taxes, since these are effectively levied on the same base as carbon taxes. Effective carbon rates for a particular fuel or sector, the sum of any applicable explicit carbon prices from emission permit prices and carbon taxes, the implicit carbon prices resulting from fuel excise taxes, captures this broader view of abatement incentives resulting from price-based policies.⁴ The OECD measures these effective carbon rates, going beyond explicit carbon prices, capturing part of but not the full implicit carbon price. This provides

⁴ Effective carbon rates in this paper account for fossil fuel support in the form of energy excise rate reductions or exemptions. Other subsidies can also affect these rates and this will be considered in future work.

a starting point for mapping the full implicit prices from regulations and other non-price based mitigation policies.

Effective carbon rates measure the prevailing carbon price signal. They describe the policies to take into consideration, when seeking energy pricing reforms that strengthen carbon price signals or more broadly the environmental performance of taxes on energy use and emissions trading systems. The OECD's database on effective carbon rates covers 44 countries, including all OECD countries and G20 economies (except for Saudi Arabia), representing about 80% of global energy use and CO₂-emissions from energy use.

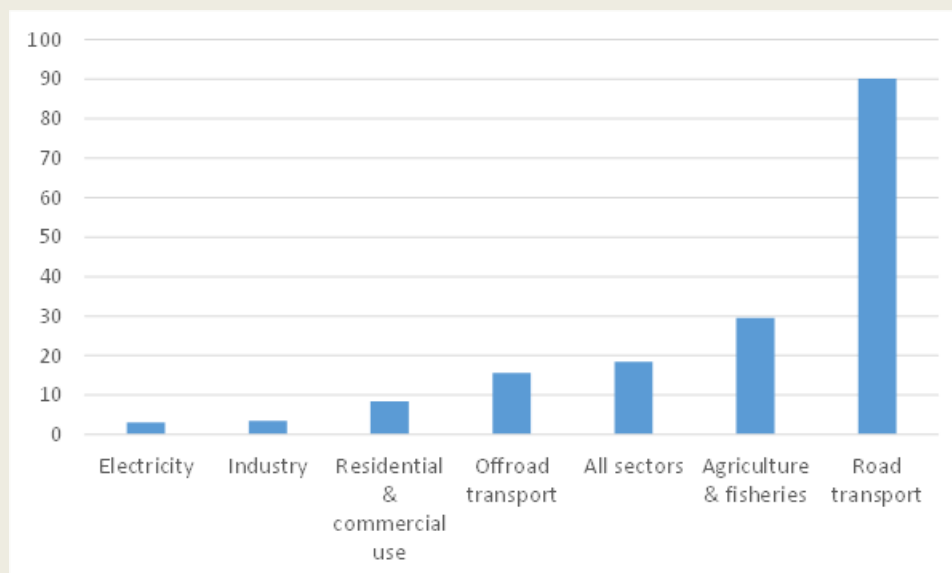
Effective carbon rates have been rising slowly overall and across sectors

More than half of all emissions from energy use remain unpriced as of 2018. The decline in the share of unpriced emissions over time has been slow and has mostly been attributable to rising coverage of carbon taxes and emissions trading systems.

Excise taxes cover a larger share of emissions than carbon taxes and emissions trading systems. In 2018, 6% of emissions were subject to a carbon tax, 12% of emissions were covered by an ETS, and 35% were subject to a fuel excise tax. With the exception of road transport, where coverage by excise is near complete at 95%, the three components of the carbon rate only cover a limited part of the base. Coverage by carbon taxes is highest in road transport (13%), followed by residential and commercial use (7%). Emissions trading systems cover more emissions in industry (14%) and electricity (18%) than in other sectors (less than 4%). These averages hide strong variation across countries.

Effective carbon rates are highest in road transport and lowest in the industry and electricity sectors

Figure 2. Average effective carbon rate by sector, 44 OECD and G20 countries, EUR/tCO₂, 2018



Note: The effective carbon rates pertain to fuel combustion in the sector, not all greenhouse gas emissions.

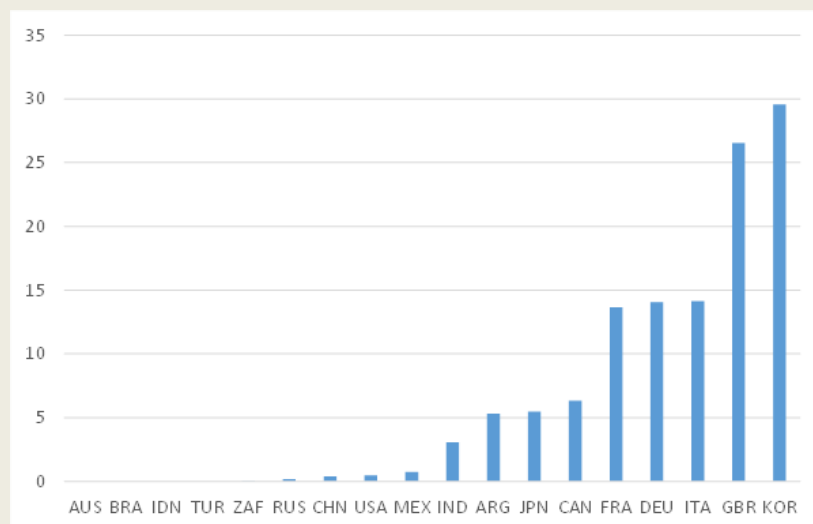
Source: OECD Effective Carbon Rates database.

Across all countries and fuels, the effective carbon rate in road transport is EUR 90/tCO₂. This is because of the broad coverage, and relatively high rates, of excise taxes in this sector. The share of road transport emissions priced at EUR 60/tCO₂ or more, is higher than 90% in the majority of G20 countries. Correspondingly (but not shown in the graph), effective carbon rates on road transport fuels are significantly higher than those on other fuels, with coal subject to the lowest rate on average. In other sectors rates are much lower on average, with the lowest averages in electricity and industry, where inter-country heterogeneity is large, as can be seen from Figure 3 and Figure 4.

In the electricity and industry sectors, emissions pricing often takes the form of emissions trading systems. Emission permits can be auctioned, but free allocation remains common in industry and to a lesser extent in electricity, and this reduces the average effective carbon rate (i.e., the marginal rate corrected for the share of free allocation). Across the countries shown in Figure 3 and Figure 4, the average rate measures 80% of the marginal rate in the electricity sector, and 70% in industry. Free permits may be contributing to their intended objective of limiting carbon leakage and competitiveness risks, but this potentially comes at a cost in terms of environmental effectiveness⁵.

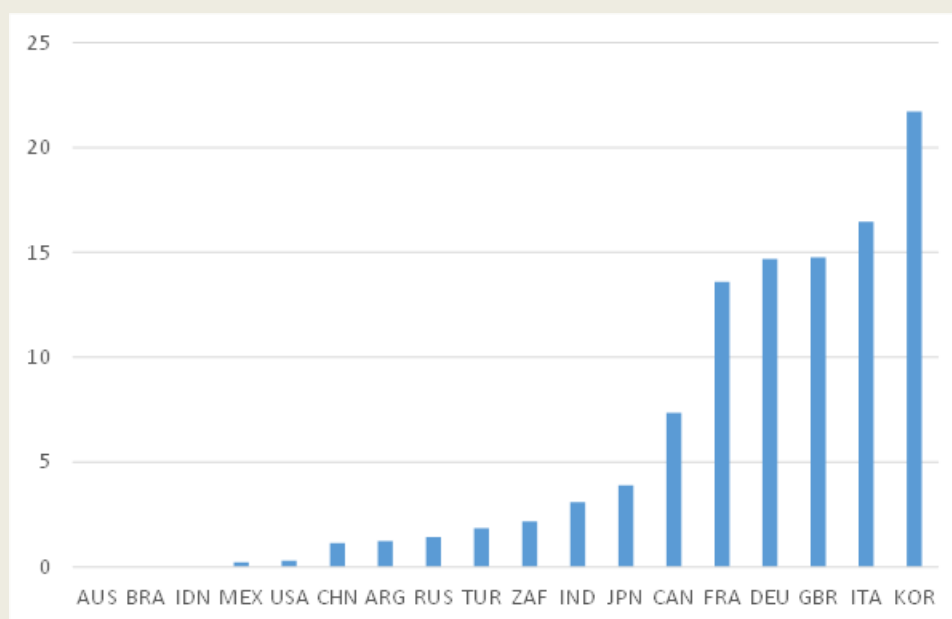
The effect of carbon pricing depends on price levels but also on the responsiveness of fuel use to greenhouse gas emissions pricing. This responsiveness differs between countries, sectors and fuels. In road transport, pre-existing taxes tend to be high, so that an increase in the carbon price has a small effect on the fuel price compared to other fuels and uses, e.g. coal. In addition, the carbon content of coal is relatively high, so that a carbon tax implies relatively large price increases. Combined with – so far – relatively limited substitution possibilities in road transport, this implies that higher prices can be expected to have a significantly smaller effect on road transport fuel demand than on the demand for coal or other fuels. Apart from fuel taxes, vehicle ownership and usage taxes also affect vehicle use and fuel efficiency. In several countries these are designed to reduce CO₂ and sometimes other pollutant emissions, with often strong impacts on purchase decisions and hence vehicle fleet characteristics.

Figure 3. Effective carbon rate, electricity sector, EUR/tCO₂, 2018



Source: OECD Effective Carbon Rates Database.

⁵ Flues, F. and K. van Dender (2017), "Permit allocation rules and investment incentives in emissions trading systems", *OECD Taxation Working Papers*, No. 33, OECD Publishing, Paris, <https://doi.org/10.1787/c3acf05e-en>.

Figure 4. Effective carbon rate, industry sector, EUR/tCO₂, 2018

Source: OECD Effective Carbon Rates Database.

Box 3. Greenhouse gas emissions pricing and fossil fuel subsidy reform⁶

At the 2009 Pittsburgh summit, G20 leaders committed to rationalising and phasing out “Inefficient Fossil Fuel Subsidies that encourage wasteful consumption” over the medium term, while ensuring targeted support for the poorest. This commitment was reiterated several times, including in the Riyadh Leaders’ Declaration of 22 November 2020. Phasing out these subsidies proves to be difficult, however, as support levels essentially remain on par with 2010 levels, having increased substantially (to 2013) then receded in the interim as of 2019. The G20 peer review mechanism to support fossil fuel subsidy reform remains active, with Argentina and Canada reviews expected to be launched in 2021-22, and France and India have committed to follow suit. The Italian G20 Presidency has signalled intent to reinvigorate the G20 focus on subsidy reform in 2021, with several deliverables anticipated during its Presidency year.

The OECD estimates fossil fuel support through an inventory of now 1300 support measures, focussing on budgetary costs and revenue forgone.⁷ It distinguishes between consumer support, producer support and general service support estimates. By this measure, total fossil fuel support across 50 countries covering all OECD, G20 countries (except for Saudi Arabia) and 6 Eastern European

⁶ This section draws from the *OECD Companion to the Inventory of Support Measures for Fossil Fuels 2021*, OECD Publishing, <https://doi.org/10.1787/e670c620-en>.

⁷ There are various other notions of energy subsidies. For example, Coody and others, 2019, “Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates”, IMF working paper 19-89, estimated global fossil fuel subsidies amounted to \$5.2 trillion (6.5 percent of GDP) in 2017, as measured by undercharging for supply costs, environmental costs, and general consumption taxes.

partnership economies rose by 5% year-on-year to USD 178 billion in 2019, reversing a five-year downward trend also highlighted by previous editions of the *OECD Companion to the Inventory of Support Measures for Fossil Fuels*. The increase in support was driven by a 30% rise in direct and indirect support for the production of fossil fuels, notably oil and gas, primarily in OECD countries. The most significant increases in producer support were observed in Mexico, the United States, and the United Kingdom. However, in the European Union, support for coal production was scaled back. Consumer support is largest in the transport fuels sector, partly because large shares of support are delivered through preferential tax rates (see below).

In addition to the OECD's inventory-based support estimate, there is a combined OECD-IEA support estimate for 81 countries. It integrates IEA's consumer support estimates, which compare domestic prices to international reference prices. This estimate shows a decline of support from 2018 to 2019 by 18%, mainly as a consequence of the drop in crude oil prices as opposed to reform. Support had increased from 2016 through 2018, also mainly because of oil price fluctuations.

Fossil fuel support can influence effective carbon rates in several ways. For example, preferential excise tax rates are included in the inventory of support measures, and they also directly affect - and are accounted for in - the effective carbon rates. While in OECD countries, around 75% of support comes from preferential excise tax treatment, the situation is different outside the OECD area. In G20 non-OECD countries, for instance, transfers are more important, and these may or may not directly affect prices. Still, tax expenditures remain an important avenue for support, providing 43% of the total value of support. Increasing effective carbon rates, and reducing fossil fuel support, particularly in the OECD, is to a considerable degree a matter of removing preferential tax treatment, and putting in place better policies to achieve the goals of the tax preference.

The potential impacts of carbon pricing

(See Box 4)

Decisive policy action is required by G20 countries to reduce emissions over the next decade in line with intermediate emissions commitments, though the explicit carbon prices or implicit prices resulting from equivalent measures needed, differ substantially across countries. While countries have many policy instruments at their disposal, assessing the increase in carbon pricing needed to achieve climate objectives provides a useful benchmark—all policies combined must have the equivalent impact on emissions as this implicit carbon price is estimated to have, and their costs can be compared with that of carbon pricing. The carbon price increases that are estimated to be needed for G20 countries to achieve their NDC commitments through pricing alone vary from less than USD 25 per tonne of CO₂ in 2030 in five countries, to between USD 25 and USD 75 per tonne of CO₂ in four countries, and over USD 75 per tonne of CO₂ in ten other cases (Figure 5). To some degree, this variation reflects responsibilities that differ with the level of country development. Increased ambition for 2030, needed to attain Paris Agreement goals, would require stronger price increases or equivalent measures.

The potential revenue gains from explicit carbon pricing are significant. For example, a USD 50 per tonne of CO₂ carbon price in 2030 would generate revenue increases of around 1% of GDP for many G20 countries and substantially more than that in a few cases (Figure 6). OECD estimates⁸ suggest similarly significant short run revenue potential from increasing prices to EUR 30/tCO₂ where they are currently lower.

Domestic environmental co-benefits can outweigh the economic efficiency costs of pricing. Carbon pricing is in many countries' own domestic interests before even counting the global climate benefits because, up to a point, the domestic environmental and health co-benefits can outweigh the economic efficiency costs—this is especially the case for countries with chronic mortality risk from local fossil fuel air pollution (Figure 7).

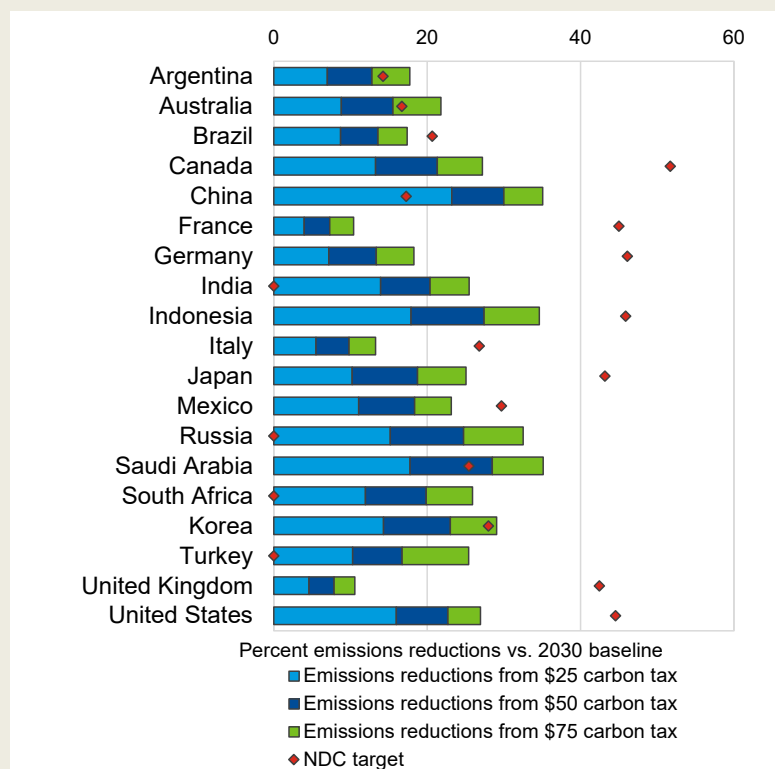
The impacts of carbon pricing on energy prices are of particular concern as, in turn, this affects the distributional burden on households and industries. Carbon pricing has a disproportionately large impact on the price of coal (given its high carbon intensity), but coal is largely an intermediate input. Carbon pricing has intermediate impacts on the price of natural gas, and more moderate impacts on pump prices for motor fuels. The impact on electricity prices will depend on the country's mix of power generation fuels. (See Table 2).

⁸ Marten, M. and K. van Dender (2019), *The use of revenues from carbon pricing*, OECD Taxation Working Papers, No. 43, OECD Publishing, Paris, <https://doi.org/10.1787/3cb265e4-en>. OECD (2021), *Taxing Energy Use for Sustainable Development: Opportunities for energy tax and subsidy reform in selected developing and emerging economies*, OECD Publishing, Paris, <http://oe.cd/TEU-SD>.

Box 4. Explicit carbon prices needed to achieve mitigation pledges and the impact of pricing

Explicit carbon prices consistent with achieving countries' mitigation pledges for 2030 vary substantially across G20 countries for two reasons (Figure 5). First is because the stringency of pledges, as implied by the reductions in 2030 levels below baseline levels (with no change in current mitigation policies), differs substantially across countries. Second is because the price responsiveness of emissions differs across countries — for example, emissions are generally more responsive to pricing in countries that consume a lot of coal. Besides the price level, the fiscal impacts of carbon pricing (see Figure 6) depend on the baseline emissions intensity of GDP, adjusted for how much pricing causes emissions to fall and any erosion in pre-existing fuel tax bases.

Figure 5. NDC goals and CO₂ emissions reductions by pricing scenario



Note: NDCs targets are from first-round or (if applicable) second-round Paris pledge. Where country has a conditional NDC the target is defined as the average between the conditional and unconditional target. NDCs as of 23 July 2021.

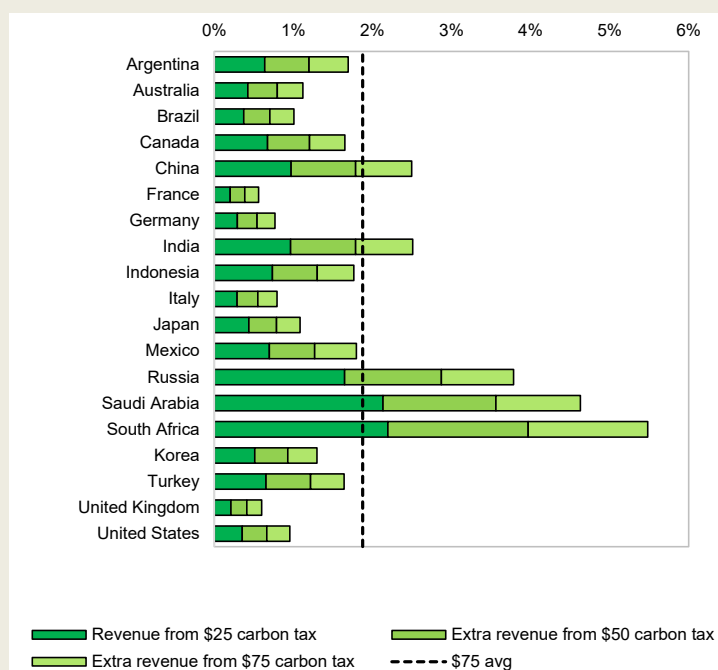
Source: IMF staff calculations.

The economic efficiency costs of explicit carbon pricing (at least as measured by the value of foregone fossil fuel consumption less savings in supply costs) are manageable—typically around 0.5% of GDP for a carbon price of USD 50 per tonne of CO₂ in 2030 for emissions intensive countries, and much less than that in other cases. For most countries, however, the domestic environmental co-benefits of carbon pricing (primarily reductions in local air pollution deaths and reductions in traffic congestion/accident externalities) are about as large, or in a few cases are much larger, than the economic efficiency costs.

Box 5. Explicit carbon prices needed to achieve mitigation pledges and the impact of pricing (contd.)

In absolute terms, the energy price impacts of carbon pricing are broadly similar across countries for coal, natural gas, and gasoline (given similar emissions factors for these fuels), but the proportionate price increases differ considerably due to large differences in baseline prices. For electricity, the absolute price increases vary by country depending on the emissions intensity of generation. See Table 1.

Figure 6. Fiscal revenues from alternative carbon pricing scenarios, 2030

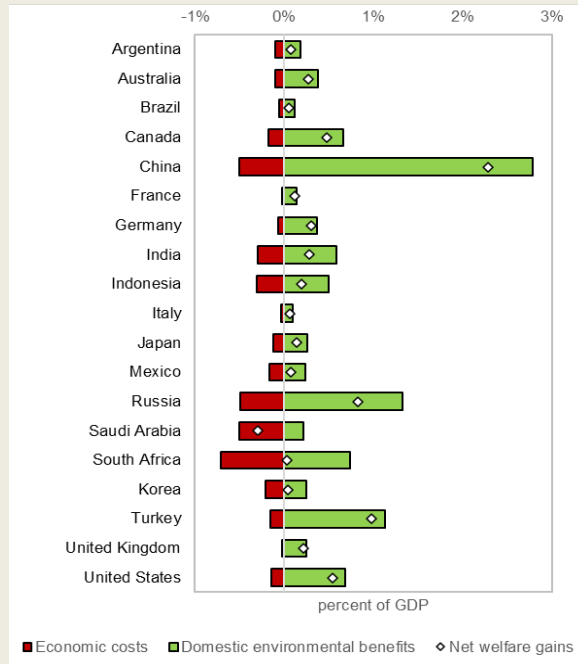


Note: Estimates are relative to a baseline with any existing carbon pricing and fuel taxes fixed at 2020 levels – that is, carbon pricing is imposed on top of any existing pricing. Estimates take into account losses due to erosion of tax bases for pre-existing carbon pricing and fuel taxes.

Source: IMF staff.

Box 6. Explicit carbon prices needed to achieve mitigation pledges and the impact of pricing (contd.)

Figure 7. Efficiency costs and domestic environmental co-benefits for a \$50 carbon price, 2030



Note: Costs are comparative static calculations of changes in consumer and producer surplus and government revenue, in fossil fuel markets, accounting for pre-existing fuel taxes. Domestic benefits include reductions in local air pollution mortality and traffic congestion/accident externalities.

Source: IMF staff.

Table 1. Energy price impacts for a \$50 explicit carbon price, 2030

Country	Coal		Natural gas		Electricity		Gasoline	
	BAU price, \$/GJ	% increase	BAU price, \$/GJ	% increase	BAU price, \$/kWh	% increase	BAU price, \$/liter	% increase
Argentina	6.9	88	8.4	37	0.1	21	1.1	13
Australia	3.4	155	11.2	28	0.2	19	1.1	12
Brazil	4.3	121	6.9	45	0.2	3	1.2	9
Canada	2.6	204	4.0	77	0.1	7	1.1	12
China	4.7	107	12.7	22	0.1	22	1.2	11
France	5.8	84	21.5	16	0.1	2	1.8	8
Germany	6.4	83	22.5	4	0.2	7	1.7	8
India	5.7	89	4.5	64	0.1	16	1.3	10
Indonesia	2.7	192	5.2	65	0.1	56	0.7	20
Italy	6.6	78	20.2	13	0.2	7	1.9	8
Japan	4.8	101	15.4	8	0.2	17	1.4	10
Mexico	2.6	199	5.3	58	0.1	19	1.1	12
Russia	1.4	324	5.6	50	0.0	37	0.9	15
Saudi Arabia	0.0		1.6	184	0.0	69	0.5	23
South Africa	5.9	77	3.6	72	0.1	59	1.1	10
Korea	6.8	71	11.6	25	0.1	23	1.4	8
Turkey	2.9	165	12.6	23	0.1	24	1.2	11
United Kingdom	8.0	72	16.0	19	0.2	4	1.7	8
United States	2.3	281	5.9	44	0.1	11	0.9	14

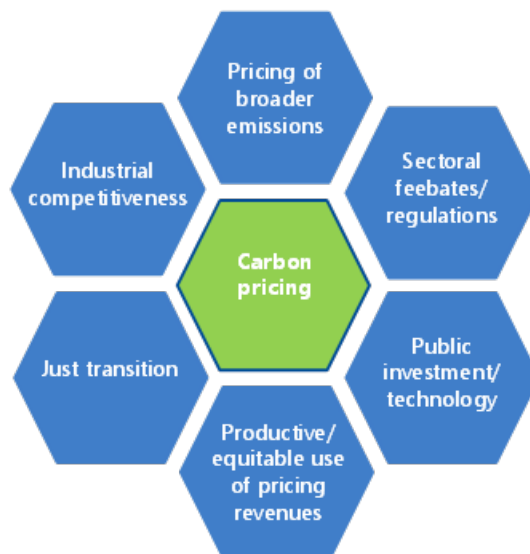
Note: BAU is business as usual. Prices are retail prices, including pre-existing energy taxes, and adjusted for projected changes in international energy prices. Impacts of carbon taxes on electricity prices depend on the emission intensity of power generation. GJ = gigajoule; kWh = kilowatt-hour.

Source: IMF staff calculations.

Comprehensive climate change mitigation strategies

Although explicit carbon pricing is an effective instrument, a comprehensive package of measures is needed to enhance the overall effectiveness and acceptability of the mitigation strategy. Key elements potentially include a balance between explicit carbon pricing and reinforcing sectoral instruments like feebates and regulations; supporting public investment and technology policies; productive and equitable use of carbon pricing revenues; just transition assistance for vulnerable groups; measures to address industrial competitiveness; and pricing or regulation of broader greenhouse gases. The balance between different mitigation policy approaches will depend on countries' specific circumstances.

Figure 8. Key elements of a comprehensive mitigation strategy



Sectoral feebates or regulations: explicit carbon pricing may be subject to acceptability constraints, not least because of the burden of higher energy prices on households and energy-intensive firms. A balance is likely needed between pricing and sectoral measures that are less efficient because they do not promote the same demand responses but avoid large and highly visible increases in energy prices. Traditionally, reinforcing instruments have taken the form of regulations, for example energy efficiency or emission rate standards. Another option is feebates, which provide revenue-neutral sliding scales of fees on products or activities with above average emission rates and a sliding scale of rebate for products or activities with below average emissions rates. Feebates can cost-effectively promote all the behavioural responses for

reducing emission intensity within a sector and when designed well, they avoid a fiscal cost to the government, and they do not impose a new tax burden on the average household or firm.⁹ Elements of feebates have been integrated into some vehicle tax systems though they could also be applied to industry and power generation, and to promote clean heating systems, efficient appliances, building retrofits (e.g., weatherisation and insulation), and forest carbon storage.

Public investment and support for technology: Mitigation instruments need to be supported by public investments that would not be provided by the market, even with a robust carbon price. An important example is network infrastructure for clean technologies (e.g., power grid upgrades to accommodate renewables, charging stations for electric vehicles). Market failures at various stages during the development and diffusion of new (clean) technologies can warrant policy interventions. For example, support for basic research, and prizes and other incentives for applied private sector research and development, to address knowledge spill-overs; and transitory incentives to promote deployments which might otherwise be hindered by scale economies and learning-by-doing spill-overs.

Productive and equitable use of carbon pricing revenues: Insofar as possible, the revenues from explicit carbon pricing should be used productively to benefit the economy to help offset the harmful effects of higher energy prices. Productive uses include, for example, cutting the labour tax wedge, funding clean infrastructure investment, or more general investments (e.g., for Sustainable Development Goals). Use of revenues can also be calibrated to enhance the overall fairness of the mitigation strategy to promote an even net burden relative to consumption over different income groups.

Just transition: Just transition measures refer to targeted protection for groups that are especially vulnerable to clean energy transitions. This includes low-income households for whom higher energy prices may be especially burdensome; displaced workers (e.g., from extractive industries, and energy-intensive firms competing in global markets); and vulnerable regions. Potential assistance measures might include stronger cash and in-kind social safety nets; training, and re-employment services; and assistance for reclaiming abandoned mining and drilling sites and temporary local government budget support. In addition, in order to facilitate the transition out of fossil fuels, alternatives need to be made available. For instance, improved access to public transportation and cleaner cars (including charging facilities for electric vehicles) will strengthen households' ability to transition away from carbon-intensive transport.

Industrial competitiveness: The focus of the competitiveness debate has been on energy-intensive, trade-exposed (EITE) industries (e.g., metals, chemicals, cement) given that their costs are disproportionately increased by carbon pricing, demand for these products may shift significantly from domestic to foreign suppliers when their domestic prices rise, and these industries may also have political sensitivities, given the visibility of their employment effects. Existing assistance measures take the form, for example, of free allowance allocations (e.g. EU, Korea) and emission rate standards for industry in lieu of pricing (e.g., Canada). These measures, however, become less effective at preserving competitiveness for EITE industries with deeper decarbonisation, hence the current interest in BCAs (see below).

Pricing of broader emissions: Beyond pricing of fossil fuel CO₂ and industrial process emissions, there are various other sources of greenhouse gas emissions requiring pricing or related measures. For some G20 countries, fugitive (mainly methane) emissions from extraction, processing, and distribution of fossil fuels are a significant emissions source — these emissions might be priced using a default emissions rate pending more extensive development of metering technologies. Carbon storage in forests might be promoted through fees on landowners that reduce storage relative to a baseline year and corresponding rebates for landowners that increase carbon storage. Agricultural emissions are not directly measured, but

⁹ Feebates are the fiscal analogue of emissions regulations with extensive credit trading provisions. In the former case however the implicit carbon price is fixed and the emission rate is determined endogenously and vice versa in the latter case.

some variant of emissions pricing might be viable based on farm level inputs or outputs and default emission rates.

BCAs and international coordination

Concerns about the leakage and competitiveness impacts of carbon pricing arise in the absence of effective international coordination on climate policies. The potential loss of competitiveness of domestic firms arises due to increased costs *vis-à-vis* foreign competitors in countries pursuing less ambitious environmental objectives. The additional compliance costs associated with domestic climate policies risk eroding support from industry and civil society. The two issues are intertwined: ambitious policies undertaken in a few countries may lead to production moving to countries that are given a perceived “unfair” competitive advantage by virtue of a less ambitious domestic carbon policy, potentially further exacerbating carbon leakage.

Dispersion in carbon pricing ambitions is prompting proposals for BCAs. Widely divergent mitigation pledges submitted for the Paris Agreement have led to concerns about achieving meaningful global greenhouse gas reductions and subsequently to some countries and regions pursuing stronger unilateral action. Many countries are considering which climate policies could be most effective at minimising adverse carbon leakage, while ensuring fairness by dampening any negative competitiveness effects. One of the policy options available to achieve these two goals is a border carbon adjustment (BCA). A BCA is a measure applied to traded products that seeks to make their prices in destination markets reflect the costs they would have incurred had their emissions been priced according to the regime in the destination market.¹⁰ Discussion around BCAs to date has mainly centred on explicit carbon pricing, but implicit carbon prices can also affect leakage and competitiveness risks.

BCAs pose administrative and legal challenges. Policymakers will have to make several critical decisions, including which industries and sectors the BCA should cover (i.e., whether to focus on energy-intensive trade exposed industries, or to have a broader focus), whether to rebate exporters for domestic pricing, and whether to use country-specific or domestic industry benchmarks to assess embodied carbon in imported products, and what forms of explicit and implicit pricing to account for. These choices involve trade-offs between effectiveness at addressing competitiveness and leakage, administrative complexity, and potential legal risks from challenges at the World Trade Organization (WTO).¹¹ There are risks that BCAs could be perceived by some as a form of “green protectionism” which could lead to heightened geopolitical tensions.

¹⁰ Cosby, A. et al. (2012), *A Guide for the Concerned: Guidance on the elaboration and implementation of border carbon adjustment*, International Institute for Sustainable Development, www.iisd.org/library/guide-concerned-guidance-elaboration-and-implementation-border-carbon-adjustment.

¹¹ See I. Parry et al. (2021), *Carbon Pricing: What Role for Border Carbon Adjustments?*, IMF Staff Climate Note, IMF, Washington, DC, forthcoming.

Alternatives to BCAs may become less appealing as ambition rises. Alternative policy approaches to BCAs could be implemented either instead of, or in parallel with BCAs. While some of these may avoid some of the administrative and legal pitfalls of BCAs, their use also involves trade-offs. Commonly implemented tools – such as free allocation of permits in emissions trading systems – may imply a lower level of domestic climate ambition and are often incompatible with ambitious long-term climate objectives. As decarbonisation ambitions rise, free permits become increasingly problematic to the extent that they do not offset the rising costs of progressively reducing emissions. Annex B includes two tables that summarise how design choices for BCAs affect policy objectives and how BCAs compare to alternative instruments, respectively.

BCAs should align with WTO rules. Any mechanism, a BCA or its alternatives, needs to be designed carefully and take into account country commitments under the multilateral, rules-based, trading system and its transparent and enforceable nature. This is especially important in today's highly interconnected world and given the already difficult environment for global governance.

Synergies between trade and climate policies should be strengthened. Making ambitious climate targets viable, in a globalised world, goes beyond the issues of carbon leakage and competitiveness. Governments should also consider other areas where trade and climate policies can be mutually supportive. For instance, existing trade-related policies that lead to increased carbon emissions (such as fossil fuel subsidies) should be reviewed. More coherence in the trade and environment policy space reduces the risk of exacerbating a sense of unjust global burden-sharing on the climate issue, notably between developed and developing countries. This can in turn increase countries' willingness to accept stronger commitments in climate negotiations. Ultimately, there is a need to restore trust in the multilateral systems (trade and climate) – especially in the wake of the COVID-19 crisis – so that they can both keep delivering substantial benefits.

An international carbon price floor (ICPF) is a potentially more effective mechanism for addressing free riding and scaling up global mitigation action. Even with measures to protect competitiveness, it can be very difficult for countries acting unilaterally to aggressively scale up mitigation action due to uncertainty about free riding—whether other countries will implement sufficient mitigation policies. An ICPF has the potential to address free riding and more effectively scale up global mitigation than a unilaterally imposed regime of BCAs as an ICPF would apply to all covered emissions in participating countries, rather than emissions embodied in trade flows. Participants may have strong incentives to join an ICPF, or a similar price coordination mechanism, if its success would limit risks of destabilizing the global climate system and thereby conferring benefits for all.¹²

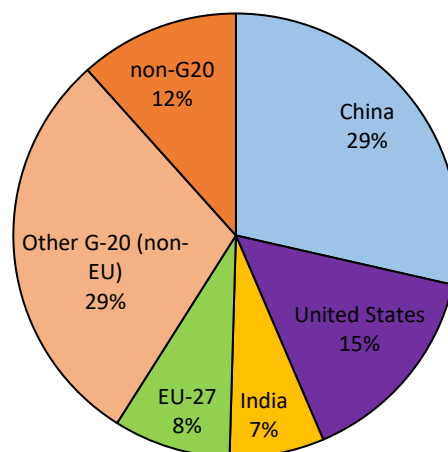
An ICPF has two key components; a focus on a small number of the largest emitting countries and a commitment to a minimum carbon price.¹³ An ICPF would be focussed on a small number of key emitting countries that are responsible for the bulk of global emissions (see Figure 9) to facilitate negotiation over specific policy actions. In contrast, under the Paris framework there are many parties (195), negotiating over many pledges (one per party, with the exception of EU countries), which hampers reaching agreement on concrete policy actions that will deliver the needed reductions in global emissions.

¹² An alternative to the ICPF is a purer form of carbon pricing where each participant agrees to implement the same carbon price through a carbon tax or trading scheme. See W.D. Nordhaus, 2015. "Climate Clubs: Overcoming Free-riding in International Climate Policy." *American Economic Review* 105: 1339–70. Incentives to participate in either type of price coordination scheme might be strengthened through applying BCAs or general tariffs for non-participating countries, though this would complicate negotiations for setting up the agreement and may risk legal challenges.

¹³ See I. Parry, S. Black, and J. Roaf (2021), *Proposal for an International Carbon Price Floor*, IMF Staff Climate Note, IMF, Washington, DC, www.imf.org/en/Publications/staff-climate-notes/Issues/2021/06/15/Proposal-for-an-International-Carbon-Price-Floor-Among-Large-Emitters-460468.

A key element of an ICPF is that it would focus on a single parameter, the minimum carbon price that each participant must implement. Simultaneous action to scale up carbon pricing among large emitting countries is a potentially effective way to address competitiveness and free rider concerns.

Figure 9. Country shares in projected global CO₂ emissions, 2030



Source: IMF staff calculations.

An ICPF could be designed pragmatically. The ICPF could complement and reinforce the Paris Agreement—the focus on minimum price requirements allows countries the flexibility to set higher prices if this is needed to meet their Paris mitigation commitments. The mechanisms could be designed equitably (to account for differentiated responsibilities) with stricter price floors for higher income countries and transparent mechanisms to transfer technical and financial assistance to lower income participants. And it could be designed flexibly to accommodate countries for whom carbon pricing is difficult politically so long as they achieve equivalent emissions outcomes through a combination of other policies.

Beyond explicit carbon pricing, countries could engage in dialogue on broad mitigation strategies, including policies resulting in implicit carbon prices. While some countries intend to increase the explicit price of carbon, policy approaches to mitigation continue to differ substantially, involving varying combinations of emissions pricing, clean energy subsidies, support for technological change and regulatory mechanisms. Given the differing policy mechanisms across jurisdictions and the rising awareness of the need to discuss and manage spillovers, there is an increasing need to develop new approaches to assess country-level mitigation policies and where possible measure the costs of these policies in the form of the carbon price equivalence of differing policy approaches (i.e., by calculating implicit carbon prices). This analysis would allow for meaningful and transparent comparison of the stringency of mitigation policy instruments across jurisdictions. Such an approach could in turn form the basis for a more rigorous assessment of the effectiveness and cost-efficiency of differing policy approaches and could ultimately help foster improved international coordination of mitigation policies. The work could also usefully support efforts to implement, and understand, Nationally Determined Contributions. It could also help facilitate discussion and cooperation toward avoiding the imposition of new trade measures such as border carbon adjustment mechanisms. Working methods like carbon clubs or an Inclusive Framework could be explored to this effect.

Support for continued dialogue on greenhouse gas emissions pricing and related climate policy instruments

Evidence on carbon prices shows they do not match policy ambitions. This report has shown that current fuel excise taxes, carbon taxes and emissions trading systems result in effective carbon rates that are often low and poorly aligned with fuels' carbon content. Evidence on non-pricing policies resulting in implicit prices is less comprehensive, but in general there is little indication that they make up for low prices. Consequently, more stringent carbon pricing policies or equivalent policies will be needed for countries to reach their nationally determined targets. This will be possible only if such policies do not compromise energy affordability or disproportionately affect lower income households, and if carbon leakage and competitiveness risks associated with differences in policy stringency in countries can be managed. Addressing these challenges requires a fiscal policy perspective and international dialogue.

The G20 Finance Ministers are well placed to strengthen the domestic and international greenhouse gas emissions pricing dynamic. They can consider jointly the incentive, revenue use and international coordination aspects of the policy challenge, which is needed to improve the use of carbon pricing or equivalent policies. Opportunities could be explored for broadening the coverage of pricing and aligning rates better with fuels' carbon content, and ensuring that it is embedded in policy packages that support growth and avoid adverse effects on households and businesses. In addition, the scope for alternative policies, resulting in implicit carbon prices, can be investigated, in line with countries' specific circumstances. Through this channel, carbon pricing and equivalent policies will be able to play their appropriate role in the overall policy response to the challenge of climate change.

To support an ongoing G20 dialogue on greenhouse gas emissions pricing, Ministers may wish to request the following:

- improved measurement of countries' principal greenhouse gas mitigation policy responses through:
 - continued monitoring of explicit carbon pricing policies, including carbon taxes and emissions trading systems, and implicit carbon prices resulting from energy taxes and fossil fuel subsidies;
 - extending such monitoring by mapping and developing of new tools and indicators for the improved monitoring of economies' principal implicit carbon pricing policies (e.g., energy

efficiency standards, emission regulations, feebates, clean energy subsidies, taxes on individual fuels, sectoral-based emissions pricing);

- sharing metrics and indicators for measuring countries carbon footprints;
- regular updates on implicit and explicit pricing measures consistent with countries' mitigation pledges and the impacts of pricing (e.g., on emissions, revenue, local air pollution mortality, economic welfare, energy prices);
- analysis of the incidence of energy price changes on households, industries, and employment in vulnerable sectors and regions, and of assistance measures designed to alleviate adverse consequences;
- dialogue on mechanisms to promote coordination, e.g. on minimum emissions pricing and on mitigation policy packages more broadly, among G20 members;
- exploring other areas of collaboration to elevate the role of emissions pricing in the transition to carbon neutrality, taking into account countries' different starting points and contexts, and avoiding negative spill-overs on trade relations, including proposals for climate clubs or an Inclusive Framework;
- discussion of the role of border carbon adjustments (BCAs) including their pros and cons versus other compensation measures; and
- further analysis of the potential impacts of rising disparities in carbon prices on carbon leakage and on countries' imports, exports, output and employment.

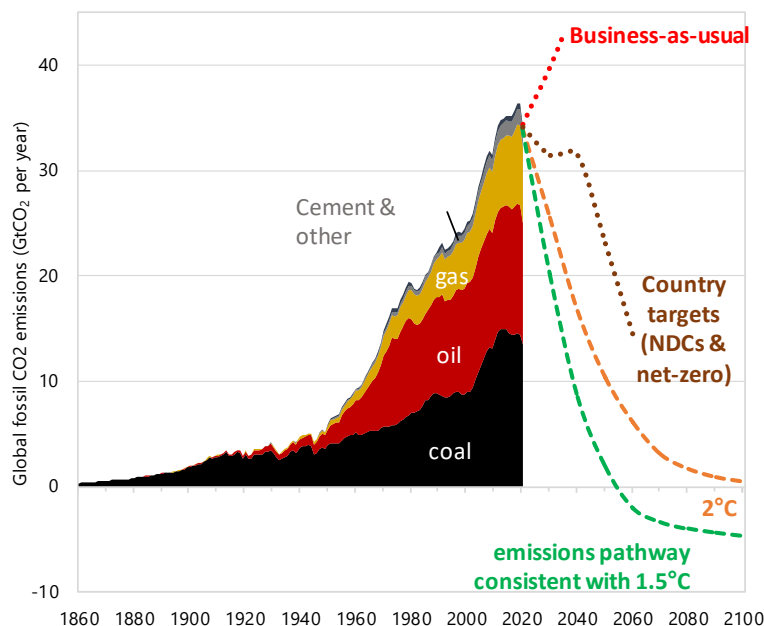
It is crucial for the success of monitoring and assessment efforts that they are systematically based on transparent and coherent methodologies. This work could potentially take the form of peer reviews. The IMF and the OECD have developed relevant capacities, on which they can build further to support the G20 FMCBG's initiatives on greenhouse gas emissions pricing, both implicit and explicit, and related climate policy instruments.

Annex A. Global and G20 emissions commitments

Under existing mitigation policies, post-COVID-19 projections suggest global CO₂ emissions will reach 37 billion tonnes in 2030 – illustrative pathways for containing warming to 1.5-2°C would require global CO₂ emissions in 2030 to be limited to around 16-26 billion tonnes or 25-50 percent below 2019 levels (see Figure A.A.1). Without these emissions reductions, the likelihood of meeting temperature stabilization goals will decline rapidly, as the remaining carbon budget consistent with warming targets is exhausted more quickly.

Mitigation pledges under the Paris Agreement are not legally binding, are partially dependent (for some developing countries) on external finance, and even if they were fully achieved would reduce global emissions in 2030 by only two-thirds of the emissions reductions that would be consistent even with a 2°C warming target. Countries are required to report progress on meeting their NDCs, and to submit revised NDCs every five years starting in 2021. Table A.A.1 summarises current mitigation contributions for G20 countries, which are mostly for 2030. Pledges differ in nominal stringency and baseline years against which targets apply.

Figure A A.1. Global CO₂ projections and pathways for warming targets



Note: Baseline and NDC projections for 170 countries (>95% of global emissions). Assumes linear path for countries with net-zero emission targets. Warming pathways assume CO₂ emissions are reduced in proportion to total GHG emissions.

Source: Global Carbon Budget (2021), IPCC (2018), IMF staff calculations.

Table A A.1. Paris mitigation contributions

Country	Submitted Revised NDC for COP26	Paris Mitigation Contributions	Year of Net-Zero Pledge
Argentina	Yes	Net emissions cap of 359 MtCO ₂ in 2030	2050 (under discussion)
Australia	Yes	Reduce GHGs 26-28% below 2005 by 2030	N/A
Brazil	Yes	Reduce GHGs 37%-43% below 2005 by 2025 and 2030	N/A
Canada	Yes	Reduce emissions by 40-45% below 2005 levels by 2030	2050
China	No	Reduce CO ₂ /GDP 60-65% below 2005 by 2030	2060
France	Yes	Reduce GHGs 55%* below 1990 by 2030	2050
Germany	Yes	Reduce GHGs 55%* below 1990 by 2030	2050
India	No	Reduce GHG/GDP 33-35% below 2005 by 2030	N/A
Indonesia	Yes	Reduce GHGs 29%(41%) below BAU in 2030	N/A
Italy	Yes	Reduce GHGs 55%* below 1990 by 2030	2050 (under discussion)
Japan	Yes	Reduce GHGs 25.4%(28.5%) below 2005 by 2030	2050
Korea	Yes	Reduce GHGs 24.4% below 2017 by 2030	2050
Mexico	Yes	Reduce GHGs 22%(36%) below BAU in 2030	2050 (under discussion)
Russia	Yes	Reduce GHGs 70% below 1990 by 2030	N/A
Saudi Arabia	No	Reduce GHGs 130 million tonnes below BAU by 2030	N/A
South Africa	No	Reduce GHGs 398-614 million tonnes in 2025 and 2030	2050
Turkey	No	Reduce GHGs 21% below BAU in 2030	N/A
United Kingdom	Yes	Reduce GHGs 68% below 1990 by 2030	2050
United States	Yes	Reduce GHGs 50-52% below 2005 by 2030	2050
European Union	Yes	Reduce GHGs 55%* below 1990 by 2030	2050

Note: Some countries have specified both conditional and unconditional pledges, where the former are contingent on external finance and other support – in these cases the conditional pledges are in parentheses. Asterisks shows the European Union's regional commitment.

Source: UNFCCC, Energy & Climate Intelligence Unit. UNEP, 2020. Emissions Gap Report 2020. UN Environment Programme, Nairobi, Kenya.

Annex B. BCAs – Design choices and alternatives

Table A B.1. Design choices for BCAs and how they affect multiple objectives

Metric	Design Feature				
	Sectoral coverage: EITE industries vs. broader	Measuring embodied carbon		Rebates for domestic exporters	Adjusting BCA for carbon pricing abroad
		Domestic vs. country-specific benchmarks	Rebuttability		
Competitiveness of EITE industries	Same protection with both approaches	Domestic preserves competitiveness for all trading partners	Little relevance	Preserves competitiveness of exports	Can preserve level playing field
Leakage	Broader addresses leakage more comprehensively but extra benefit may be modest	Country-specific addresses leakage more efficiently	Little relevance	Reduces leakage	May reduce leakage
Promoting carbon pricing/mitigation abroad	Broader increases incentives but only modestly	Country-specific provides stronger incentives on foreign producers and govts.	Incentive for foreign firm to reduce emissions	Little relevance	Promotes pricing but direct incentives may be modest
Mitigation for domestic EITE industries	Both approaches preserve incentives	Both approaches preserve incentives	Little relevance	Preserves incentives if appropriate design	Little relevance
Administrative	Broader may be very complex	Country-specific is more complex	Small if third parties provide verification	Modest additional burden	Increases burden
Legal	Leakage rationale more questionable for broader	Domestic might help by reducing tariff and showing like treatment	Should help with WTO	Could be challenged as a subsidy	May increase legal risks if not applied equally and equivalently across countries

Source: IMF staff.

Table A B.2. Ensuring the effectiveness and fairness of ambitious climate policies in a fragmented world: strengths and weaknesses of selected instruments

Instrument	Can be applied unilaterally	Maintains domestic abatement incentive	Avoids carbon leakage and asymmetric cost increases for domestic producers	Is WTO compatible	Administratively within reach	Generates revenues for domestic government	Incentivises foreign firms to invest in clean production	Incentivises foreign countries to price carbon emissions	Allows scaling to level of development of foreign countries
Preferential rates	Yes	Weak (depending on size of discount)	Moderate to strong (depending on size of discount)	Strong	Strong	Weak (foregone revenue, depending on size of discount)	No	No	No
Free permits	Yes	Weak to moderate (depending on extent and design of free allocation)	Moderate to strong (depending on share of free allocation)	Strong (has not been challenged)	Strong	No (foregone revenue)	No	No	No
Compensating for input-cost increases	Yes	Weak to moderate (depending on extent and design of cost compensation)	Moderate to strong (depending on size and breadth of compensation)	Strong (has not been challenged)	Strong	No (requires government spending)	No	No	No
Abatement payments	Yes	Strong in theory, moderate in practice	Strong	Strong (has not been challenged)	Strong	No (requires government spending)	No (but this may occur with the related instrument of carbon offsets)	No	No
Feebates	Yes	Moderate (encourages switch to cleaner product categories; but does not provide abatement incentives at the margin)	Strong (but does not address potential leakage by accompanying carbon price)	Strong	Strong	No (if revenue neutral design)	Moderate (strengthens export market for cleaner products)	Weak	No
Excise taxes on carbon-intensive products, such as steel, cement & bulk chemicals	Yes	Moderate (encourage switch to cleaner substitutes; but not the use of cleaner production)	Strong (but does not address potential leakage by accompanying carbon price)	Strong	Strong	Strong	Moderate (strengthens export market for cleaner products)	Weak	No

		processes for a given product)							
Narrow BCA (Mehling et al.)	Yes	Strong	Moderate	Moderate to strong (depends on design)	Strong	No	Moderate	Moderate	Strong
Broad BCA (Flannery et al.)	Yes	Strong	Strong	Moderate to strong (depends on design)	Weak	Strong	Strong	Strong	Moderate
International sectoral agreements	No	Strong in principle but weak in practice due to difficulty of reaching ambitious agreement	Strong	Strong	Moderate	Variable (depends on agreement)	Strong	Strong	Strong (existing agreements include such provisions)
Linking existing carbon markets	No	Variable ⁽¹⁾	Variable ⁽²⁾	Strong	Weak	Variable (depends on market)	Strong	Strong	Strong

Note 1: Linking carbon markets generally maintain or strengthen domestic abatement incentives, however they may weaken these domestic incentives in certain circumstances depending on their design.

Note 2: Linking carbon markets aims to reduce carbon leakage effectively, however, this will depend on the overall scope and coverage of the schemes linked. This depends on the initial carbon markets that are being linked.

Source: OECD (2020), *Climate Policy Leadership in an Interconnected World: What Role for Border Carbon Adjustments?*, <https://doi.org/10.1787/8008e7f4-en>.

Attachment C. Developing Countries and the OECD/G20 Inclusive Framework on BEPS

OECD Report for the G20 Finance Ministers and Central Bank Governors
October 2021, Italy

We reaffirm our engagement to support developing countries in strengthening the capacity to build sustainable tax revenue bases and ask the OECD to prepare a report on progress made through their participation at the G20/OECD Inclusive Framework on BEPS and identify possible areas where domestic resource mobilisation efforts could be further supported.

Second Finance Ministers and Central Bank Governors Meeting Communiqué, 7 April 2021

Executive summary

In June 2016, at the request of the G20, the OECD/G20 Inclusive Framework on BEPS (Inclusive Framework) was established in Kyoto, Japan with an initial membership of 89 countries and jurisdictions. The Inclusive Framework now includes 140 members, who, on an equal footing, monitor the implementation and contribute to the development of measures to combat Base Erosion and Profit Shifting (BEPS). With this approach, the Inclusive Framework successfully responds to the Addis Ababa Action Agenda on Financing for Development (AAAA) commitment to ‘scale up international tax co-operation’ and underlines ‘the importance of inclusive cooperation and dialogue among national tax authorities on international tax matters’.¹

It has now been five years since the establishment of the Inclusive Framework and 12 years since the G20 called on the Global Forum on Transparency and Exchange of Information for Tax Purposes (Global Forum) to deliver the end of bank secrecy. These developments have taken place in a rapidly evolving international tax environment, which has become truly global, with previously unimaginable levels of tax co-operation and co-ordination both between the members of the Inclusive Framework and Global Forum, and among the wider range of international organisations, regional tax organisations, multilateral development banks, and other partners.

The recent agreement on solutions to tackle the tax challenges arising from the digitalisation of the economy and introduce a global minimum tax is a further step change.² In contrast to the development of the original BEPS package of 15 measures, developing countries have had a significant impact on the negotiation of these new rules which, over time, will directly support their domestic resource mobilisation (DRM) needs in the recovery phase of the pandemic. Of even greater significance, the agreement marks the beginning of a new era of international co-operation which acknowledges the need for simpler approaches to the rules and standards. The agreement is the first serious multilateral step in a paradigm shift relating to the global income allocation system.

These recent developments may go some way to address the perception³ that the Inclusive Framework’s agenda is not yet sufficiently balanced to reflect developing countries’ interests.

Maintaining the G20’s strong delivery focus has, however, necessitated a rapid pace of work at the Inclusive Framework, posing significant challenges for developing countries with limited capacities, particularly as they face multiple demands and competing priorities during the COVID-19 pandemic. Many are on a steep learning curve, having to adapt to new ways of intergovernmental co-operation.

¹ Addis Ababa Action Agenda of the Third International Conference on Financing for Development, accessed at https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf.

² Statement available at: <https://www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-july-2021.htm>.

³ See Christensen, RC, Hearson, M and Randriamanalina, T, *At the Table, Off the Menu? Assessing the Participation of Lower-Income Countries in Global Tax Negotiations*, ICTD Working Paper 115, December 2020.

This report is intended to help the G20 ensure that the Inclusive Framework's strong coalition of countries continues to advance together and converge on the design and implementation of the global tax rules by paying particular attention to the needs of lower income/lower capacity countries in the Inclusive Framework.

As part of the process of developing the report, extensive consultation was undertaken with developing countries, including both members and non-members of the Inclusive Framework. Primarily, this consultation was conducted through a series of six regional events, held virtually in the period from May-July 2021, co-hosted by the OECD Secretariat and ten regional partners and involving participation from some 675 government officials from 155 jurisdictions. In addition to the formal consultation events, the Secretariat has also gathered input from developing countries and development partners through its bilateral capacity building and technical assistance programmes which are delivered in partnership with the African Tax Administration Forum (ATAF) and World Bank Group (WBG).

This report:

1. Takes stock of developing countries' progress in their participation in the Inclusive Framework.
2. Considers the existing international tax norms and guidance in relation to the capacities and priorities of developing countries, as well as their DRM needs. Given the critical importance of the taxation of natural resources, there is a cross-cutting focus on this topic.
3. Examines the support to developing countries aimed at boosting capacity.
4. Analyses the inclusivity of the Inclusive Framework, including its existing governance arrangements.
5. Sets out developing countries' views on the future of the Inclusive Framework in the context of their DRM priorities, whilst acknowledging the Inclusive Framework mandate is dedicated to BEPS.

There are a number of areas where there is scope for reflection and potential improvements to enable developing countries to integrate faster, and deeper, into the new international tax architecture. Building on empirical findings and feedback from consultation, the report includes a number of recommendations across a range of areas that could help unlock benefits to support DRM efforts in developing countries, and their commitment to the Inclusive Framework.

The overarching recommendation of this report is for further assessments on the progress of developing countries to be conducted on a regular basis. To help ensure political momentum to the process, it is recommended that this takes the form of an annual ministerial dialogue, including both developing countries and interested G20 members. The Minister of Finance of Jamaica, H.E. Nigel Clarke, has proposed to host a ministerial roundtable in late 2021 that could serve as the inaugural event.

The highest priority specific recommendations identified in this report are:

1. For all stakeholders, including Inclusive Framework members, to reflect on how Country-by-Country reporting could be made more accessible to developing countries while also protecting confidentiality of sensitive information.
2. For development partners, including the G20, to support a major Inclusive Framework initiative to be launched in early 2022, to provide capacity building support to ensure developing countries can adopt and implement the agreement on the taxation of the digitalising economy and a global minimum tax in an appropriate and timely fashion.

3. For all Inclusive Framework stakeholders to reflect on governance arrangements to ensure a broad and systematic inclusion of developing countries. This could include appropriate representation in the leadership of the Inclusive Framework and its subsidiary bodies.
4. For all Inclusive Framework stakeholders, to consider integrating Working Party No. 9 (WP9) into the scope of the Inclusive Framework. This recommendation is made in light of the growing importance of Value-Added Taxes (VAT)/ Goods and Services Taxes (GST) and the cross-overs between the work of the OECD Committee on Fiscal Affairs' WP9 on Consumption Taxes and the Inclusive Framework.

All recommendations are set out in Annex A.

Table of contents

Executive summary	51
Abbreviations and acronyms	56
Introduction	59
1 Stocktake on BEPS implementation by developing countries	62
1.1. Introduction	62
1.2. Developing countries and the Inclusive Framework on BEPS	62
1.3. How have developing countries benefited from the BEPS minimum standards?	65
1.4. Other BEPS Actions	67
2 International norms and guidance: Making the BEPS agenda more effective for developing countries	72
2.1. Unlocking the benefits of implementing BEPS for developing countries	72
2.2. Tackling base eroding payments such as excessive interest, royalties, etc.	74
2.3. Implementing consensus-based solutions to the tax challenges of the digitalisation of the economy	74
2.4. Taxation in the natural resources sector	75
2.5. Simplification measures for transfer pricing	77
3 Supporting developing countries' domestic resource mobilisation efforts through technical assistance and capacity building	78
3.1. Introduction	78
3.2. Technical assistance and capacity building support to implement the two-pillar agreement on digitalisation	83
3.3. Enhancing technical assistance and capacity building efforts	86
4 Inclusivity and governance of the Inclusive Framework	91
4.1. Introduction	91
4.2. Governance arrangements and structure	92
4.3. Practical support for effective participation by lower-capacity countries	93
5 Domestic resource mobilisation and future priorities for the Inclusive Framework	96
5.1. Tackling climate change through tax policy action	96
5.2. Safeguarding VAT/GST revenues in the face of growing digitalisation and e-commerce	98

5.3. Ensuring effective taxation of personal income and property through improved tax policy design and AEOI	99
5.4. Improving tax policy design to support the Sustainable Development Goals	99
5.5. Supporting tax administration development	100
Annex A. Recommendations	102
Annex B. List of Inclusive Framework members, Steering Group members and Observers	105
Annex C. Regional consultation events May-July 2021	108

Abbreviations and acronyms

AAAA	Addis Ababa Action Agenda on Financing for Development
Advisory Group	Advisory Group for Co-operation with Partner Economies
AEOI	Automatic Exchange of Information
APEC	Asia-Pacific Economic Cooperation
ATAF	African Tax Administration Forum
AU	African Union
AUC	African Union Commission
BEPS	Base Erosion and Profit Shifting
CARICOM	Caribbean Community
CATA	Commonwealth Association of Tax Administrators
CbC	Country-by-Country
CBT	ATAF Cross Border Taxation Technical Committee
CFA	Committee on Fiscal Affairs
CFC	Controlled Foreign Company
CIAT	Inter-American Center of Tax Administrations
CREDAF	Cercle de Réflexion et d'Échange des Dirigeants des Administrations Fiscales
DRM	Domestic Resource Mobilisation
EOI	Exchange of Information

FTA	Forum on Tax Administration
GDP	Gross Domestic Product
Global Forum	Global Forum on Transparency and Exchange of Information for Tax Purposes
GloBe	Global Anti-Base Erosion
GST	Goods and Services Tax
GRP	Global Relations Programme
IGF	Inter-Governmental Forum on Mining, Minerals, Metals and Sustainable Development
IMF	International Monetary Fund
KSP _{TA}	Knowledge Sharing Platform for Tax Administrations
MAAC	Convention on Mutual Administrative Assistance in Tax Matters
MAP	Mutual Agreement Procedure
MCAA	Multilateral Competent Authority Agreement
MCM	Mopani Copper Mines plc
MLI or Multilateral Instrument	Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting
MNE	Multinational Enterprise
MTC	Multilateral Tax Centre
MTRS	Medium-Term Revenue Strategy
PCT	Platform for Collaboration on Tax
PE	Permanent Establishment
SDGs	Sustainable Development Goals
STTR	Subject to Tax Rule
TIWB	Tax Inspectors Without Borders

UN	United Nations
UNDP	United Nations Development Programme
VAT	Value Added Tax
WBG	World Bank Group
WP	Working Party
ZRA	Zambia Revenue Authority

Introduction

International taxation issues are of critical importance to most developing countries since typically, they are more reliant on corporate income taxes and foreign direct investment, meaning they are disproportionately impacted by BEPS issues. As the COVID-19 pandemic impacts developing country finances, there will be further pressure on international taxation to deliver revenues. It is estimated that COVID-19 pushed an additional 100 million people into extreme poverty during 2020 alone.⁴ The crisis has forced most countries to take on additional debt, and for low-income countries this may lead to a precarious fiscal position, particularly if interest rates are to rise. Developing countries already struggle with limited fiscal space; for example, the average tax-to-GDP ratio in African countries is 16.5%, as compared to the OECD average of 34.3%, and they have less scope for borrowing or quantitative easing.

Interest in tax and development has grown in recent years, creating a range of networks and partnerships. International tax has become increasingly prominent in the wider tax and development landscape, especially since the 2015 AAAA agreement. The AAAA committed countries to scaling up international co-operation on tax,⁵ and increasing transparency and exchange of information. Members of the Addis Tax Initiative have gone further with additional commitments on funding and actions to support the implementation of the AAAA, including on international taxation. Beyond national governments, international organisations at both the global and regional level have been increasing their activities and co-operation on international taxation. The United Nations Committee of Experts on International Cooperation in Tax Matters has increased its activities since the agreement on the AAAA. The Platform for Collaboration on Tax (PCT) was established in 2016 to facilitate further collaboration, especially on international taxation, between the International Monetary Fund (IMF), OECD, the United Nations (UN), and the WBG. Regional tax organisations have expanded their activities on international taxation, facilitating regional dialogue and analysis, and developing practical tools. Regional economic communities, including the African Union (AU), the Asia-Pacific Economic Cooperation (APEC) forum, and the Caribbean Community (CARICOM) are paying increasing attention to tax issues, while multilateral development banks are also increasing their focus on tax, most recently through the Asian Development Bank's establishment of a hub on taxation issues. With each actor bringing different constituencies and expertise, a range of dynamic partnerships have evolved in the international tax landscape.

The Inclusive Framework is a key component of the architecture for international tax and development issues. The Inclusive Framework now includes 140 members⁶ working on an equal

⁴ World Bank. 2020, *Poverty and Shared Prosperity 2020: Reversals of Fortune*, Washington, DC: World Bank. doi: 10.1596/978-1-4648-1602-4. License: Creative Commons Attribution CC BY 3.0 IGO.

⁵ Addis Ababa Action Agenda of the Third International Conference on Financing for Development, accessed at https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf.

⁶ As at 1 September 2021.

footing to monitor the implementation of measures to combat BEPS and the ongoing development of consensus-based, anti-BEPS solutions to strengthen the international tax system. At the request of the G20, it was established in Kyoto, Japan in June 2016 with an initial membership of 89 countries and jurisdictions. In addition to member jurisdictions, 15 international and regional organisations are now observers to the Inclusive Framework (see Annex B).

The Inclusive Framework reflects how global the participation in the international tax agenda has become,⁷ in parallel with other measures. For instance, the Global Forum, established in 2009, now includes 163 members,⁸ and the Convention on Mutual Administrative Assistance in Tax Matters (MAAC), open to all countries and jurisdictions since 2010, now includes 144 countries and jurisdictions. Over 100 jurisdictions negotiated the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (Multilateral Instrument, or MLI), which now has 95 signatories⁹ and has amended over 1700 bilateral tax treaties. Almost all the major multinational enterprises (MNEs) are now required to prepare Country-by-Country (CbC) reports. More than 150 tax incentive regimes have been amended or abolished.

In July 2021, 134 members¹⁰ of the Inclusive Framework reached an historic agreement for a two-pillar solution to address the tax challenges of the digitalisation of the economy and put a floor on tax competition. The agreement provides for fundamental tax reforms updating key elements of the century-old international tax system and will help countries protect their tax bases.

Importantly, developing country members of the Inclusive Framework have played a vital role in shaping the agreement, and have had significant influence on many of the essential components of the reforms. This demonstrates that the new international tax architecture provides not only a seat “at the table,” but also the potential for developing countries to have a strong voice in ensuring that international tax norms and standards reflect their priorities. Developing countries continue to be actively involved in the ongoing technical discussions that will flesh out the agreement and ultimately produce the legal instruments, model rules and guidance on implementation. It will be essential that developing countries are able to benefit from the new agreement and they will need capacity building support to effectively implement the new rules in a timely way.

While recent developments are encouraging, developing countries with limited capacities continue to face challenges to their active participation in the Inclusive Framework, particularly due to the pace of the work over multiple workstreams which have been progressed simultaneously. Many are on a steep learning curve, having to adapt to new ways of intergovernmental co-operation. There is also a view that the agenda is not sufficiently reflective of developing countries’ interests.

It is now in the direct interest of G20 countries to seek to consolidate the progress that has been made in establishing a new international architecture on tax. This requires checking that the Inclusive Framework’s strong but diverse membership continues to advance together and converge on the successful implementation of the global tax rules, paying particular attention to the needs of the group of approximately 50 lower-income/lower-capacity countries in the Inclusive Framework. The G20’s commitment to aligning its work with the 2030 Agenda for Sustainable Development, together with the high priority accorded to DRM in the context of the COVID-19 crisis, make it especially timely and necessary to take stock of progress made and consider potential improvements.

⁷ See Annex B for details of Inclusive Framework members.

⁸ As at 1 September 2021.

⁹ As at 1 September 2021.

¹⁰ As at 1 September 2021.

Encouragingly, all G20 members have responded by investing, many significantly, in support to lower capacity countries through a range of modalities including political dialogue, outreach and induction programmes, bilateral capacity building, and the Tax Inspectors Without Borders (TIWB) initiative. This support has had a significant impact, with many countries already able to benefit (or benefit more) from the new international tax architecture. Additional investments will be needed urgently to ensure lower-income countries are able to implement and benefit from the new two-pillar agreement.

Since 2016, and particularly in the recent negotiations towards the two-pillar agreement to address the tax challenges of the digitalisation of the economy, the OECD Secretariat has learned lessons and received valuable feedback from the increased engagement with developing countries, as well as from a number of independent reports. There are several areas where there is scope for reflection and potential improvements to enable developing countries to integrate faster and deeper into the new international tax architecture, should they wish to do so. Ensuring consistent application of the new two-pillar agreement will be essential.

This report focuses primarily on the approximately 50 members of the Inclusive Framework that are classified as low- or middle-income, are not considered financial centres, and are not OECD or G20 members. Whilst this grouping is not monolithic, it is possible to identify recommendations based on commonalities which should benefit the majority. These are included at various points in the report and catalogued in Annex A. The report has been directly informed by the findings of a consultation process held in mid-2021.¹¹ It is not the intention of this report to cover the work of the Global Forum except insofar as standards monitored by the Global Forum interact with the BEPS agenda.

¹¹ See Annex C for details of the consultation events held during mid-2021.

1 Stocktake on BEPS implementation by developing countries

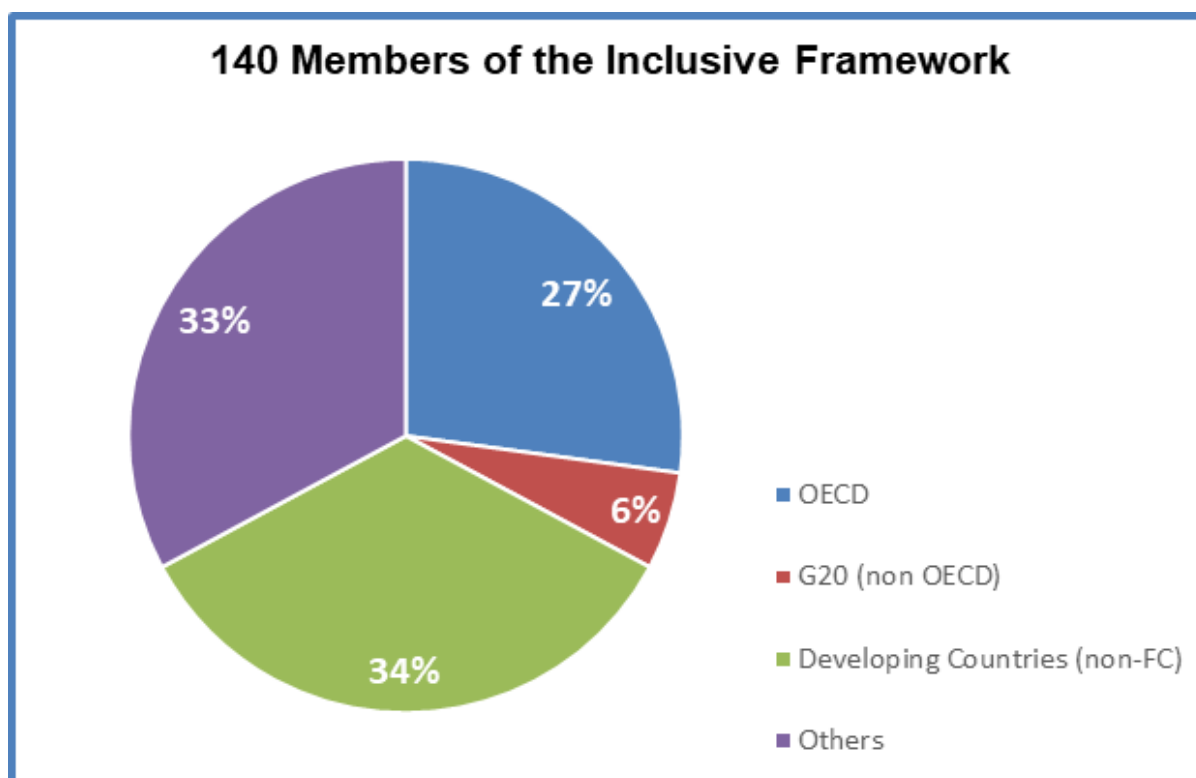
1.1. Introduction

The first chapter of this report provides a snapshot of the progress made through the participation of developing countries in the Inclusive Framework, starting with an overview of membership, followed by an examination of the extent to which developing country members of the Inclusive Framework have implemented the BEPS actions. It first examines progress on the BEPS minimum standards, then moves through each of the remaining BEPS Actions. The chapter also considers what this means for developing countries in terms of their ability to mobilise domestic resources and fight BEPS, and includes an examination of how developing countries' participation in the Inclusive Framework has influenced the international tax standards. This evaluation is essential to ensure that the advantages of multilateral inclusivity can be cemented into the system.

1.2. Developing countries and the Inclusive Framework on BEPS

Membership in the Inclusive Framework has grown rapidly since its establishment in 2016, following calls from the G20 to involve all interested countries, particularly developing countries, in the implementation of the BEPS agenda. Developing countries now make up around one-third of the Inclusive Framework's membership. Of the 140 members of the Inclusive Framework, 48 are low- or middle-income countries that are not members of the OECD or G20 and are not considered to be financial centres (see Figure 1.1.).

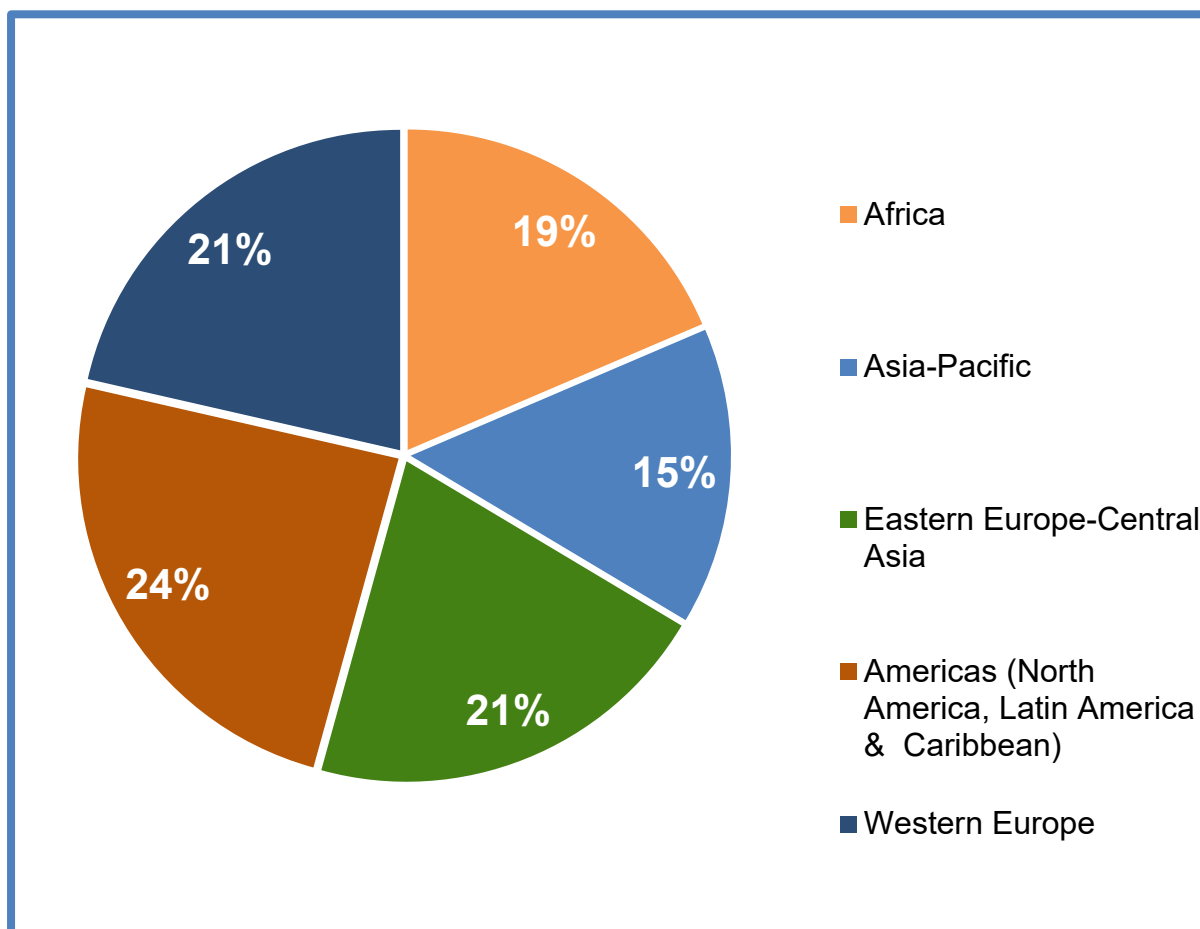
Figure 1.1. Members of the OECD/G20 Inclusive Framework on BEPS



Source: OECD, <https://www.oecd.org/tax/beps/inclusive-framework-on-beps-composition.pdf>.

The Inclusive Framework also reflects a strong regional balance, with members from all geographic regions of the world (see Figure 1.2). The Steering Group of the Inclusive Framework also reflects its regional balance, with Deputy Chairs from the People's Republic of China (China) and Nigeria, as well as other members from Brazil, India, Mongolia, Senegal, South Africa and Zambia. At the request of African members of the Inclusive Framework, and to augment the capacity of African members of the Steering Group, ATAF has attended Steering Group meetings since late 2019. Annex B provides a complete list of Inclusive Framework members, as well as the composition of the Steering Group.

Figure 1.2. Regional composition of the OECD/G20 Inclusive Framework on BEPS



Source: OECD, <https://www.oecd.org/tax/beps/inclusive-framework-on-beps-composition.pdf>

Feedback from developing countries indicates strong support for the BEPS agenda, although some have noted that the BEPS Actions may not reflect their highest priorities given that they were not able to participate fully in the process prior to the establishment of the Inclusive Framework. Others have expressed concern that the BEPS standards may be used for purposes for which they were not intended, especially where these may have negative impacts on developing countries, (e.g. listing).¹² Some countries, especially Small Island Developing States (SIDS) have also raised concerns over how international tax standards may impact their economic development models.¹³

¹² Feedback from panellists and other participants taking the floor at regional consultation meetings during round-table discussions and gathered through bilateral discussions with the OECD Secretariat.

¹³ Although many SIDS are financial centres and thus not the primary focus of this report, many are nevertheless lower income jurisdictions. Their concerns were raised through the process of consultation for the report. Additional reflection on how to assist such jurisdictions transition to more sustainable models of economic development would likely be beneficial to the stability of the international tax system.

1.3. How have developing countries benefited from the BEPS minimum standards?¹⁴

Developing countries have played their part in strengthening the international tax system by ensuring their tax incentives regimes do not harm the tax bases of other jurisdictions under the Action 5 minimum standard. For many developing countries, tax incentives are used to encourage foreign direct investment. Compliant regimes are more likely to be effective at encouraging real investment, and limiting economic distortions.

The Action 5 minimum standard consists of three elements; the first relates to preferential tax regimes, the second requires jurisdictions to exchange relevant information relating to taxpayer-specific rulings and the third includes a review of the requirements for substantial activities in no or only nominal tax jurisdictions.

A majority of developing countries now receive information on tax rulings issued abroad, better equipping them to conduct risk assessments and identify situations of double non-taxation or tax avoidance. On the other hand, only one developing country has provided tax ruling information to other countries under the transparency framework. This may be, in part, because developing countries are less likely to have legislation and administrative practices in place to issue tax rulings that are subject to the minimum standard, suggesting they pose fewer BEPS risks to other jurisdictions.

Developing countries are using the BEPS tools under Action 6 to protect their tax bases from treaty abuse, but progress is slow. BEPS Action 6 addresses treaty shopping and requires jurisdictions to amend their bilateral double tax agreements. The MLI is one way of efficiently updating bilateral agreements to close these loopholes, without the need to undergo resource-intensive bilateral negotiations. The effect of the MLI is starting to build, with the number of treaties covered increasing significantly in recent times. While many developing countries have signed the MLI (or are planning to sign the MLI), only limited numbers have ratified it so far. The consultation events that were undertaken for this report identified as a binding constraint the disconnect between the technical work of tax officials, and its translation into political action by other parts of government to proceed to ratification. This disconnect impacts on other

Box 1.1. BEPS Action 5: Harmful tax practices

Since the start of the BEPS project, developing countries accounted for:

- 37 of 162 (23%) regimes abolished/ amended.
- 79 of 295 (27%) reviewed regimes.

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

Box 1.2. BEPS Action 6: Prevention of tax treaty abuse

- Over 200 tax treaties where at least one treaty partner is a developing country have been made compliant with the Action 6 minimum standard via the MLI or via bilateral negotiations.
- 24 developing countries signed the MLI (51%) but only 11 have so far ratified the MLI (23%).¹⁵

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

¹⁴ All figures quoted in sections 1.3 and 1.4 of this report are based on a stocktake of developing countries' progress as at 1 June 2021.

¹⁵ At least one additional developing country is expected to sign the MLI in 2021.

areas too, including CbC reporting (see also section 3.3 and results of polling question 7 at Annex C), and points to a need for strengthening engagement at political levels.

Developing countries are making progress on the BEPS Action 13 CbC reporting minimum standard, thus helping BEPS risk assessment, but many consider the requirements under the standard to be onerous.

Box 1.3. BEPS Action 13: CbC reporting

Feedback from consultation indicated that:

- Implementing domestic legislation requirements can be a significant hurdle.
- Meeting the AEOI confidentiality standard can be time-consuming and challenging.
- Many countries lack capacity to fully implement the requirements and are concerned that they could not make full use of CbC report information.

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

The CbC reporting standard puts in place a mechanism to require large MNE groups to disclose information on their income, profit, taxes paid and economic activity on a country-by-country basis. The CbC report is filed centrally (typically by the ultimate parent company of the group) and then shared using treaty-based exchange mechanisms with tax administrations where the MNE group operates. The minimum standard calls for consistent application of CbC requirements, and uses the automatic exchange of information (AEOI) standard to help ensure confidentiality.

In spite of ongoing capacity building support, only three developing countries can currently receive CbC reports from abroad. This lack of access could, over time, erode confidence in the Action 13 standard and strengthen calls for public disclosure of CbC reports. Moreover, advocates for local (rather than centralised) filing of CbC reports, which would be inconsistent with the Action 13 minimum standard, are also growing increasingly vocal. Local filing would create additional compliance costs for MNEs, including to the extent that they differ from the standard CbC reporting template. Local filing could also result in an increased risk of double taxation, since access to CbC report information would not be contingent upon meeting the appropriate use standard.

Box 1.4. Developing country progress on CbC reporting under BEPS Action 13

- 15 developing countries (32%) have relevant domestic legislation. An additional 7 developing countries have introduced legislation but it has not yet been peer reviewed to assess its compliance with the CbC standard.
- 33 developing countries (70%) have signed and 24 (51%) have ratified the MAAC.
- 11 developing countries (23%) have signed the CbC MCAA; 5 (11%) have activated relationships; 3 have activated relationships on a reciprocal basis.
- 3 developing countries have passed the confidentiality assessment on a reciprocal basis.
- 3 developing countries have been assessed as having controls in place to ensure appropriate use of CbC reports.

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

While all Inclusive Framework members are subject to the Action 14 minimum standard on improving dispute resolution, many lower capacity developing countries do not have significant numbers of Mutual Agreement Procedure (MAP) cases. As a result, they may be eligible to defer their Action 14 peer review. The BEPS Action 14 minimum standard seeks to improve dispute resolution processes. Such disputes typically arise as a result of compliance action (e.g. audits) in relation to transfer pricing or other profit allocation mechanisms. For developing countries which do not currently have large-scale compliance programmes that result in significant numbers of MAP cases, this action is likely to be a lower priority. It is important to note, however, that as domestic compliance programmes expand, having a well-functioning MAP process will become increasingly important to sound tax administration and investor confidence.

Box 1.5. BEPS Action 14: MAP

- 40 developing countries (85%)¹⁶ have opted to defer their Action 14 peer review.
- 6 developing countries (13%) have MAP regulations in place.

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

1.4. Other BEPS Actions¹⁷

Effectively taxing the digitalising economy (BEPS Action 1) is a key priority for developing countries. In the sphere of indirect taxes, some 60% are implementing or considering VAT/ GST measures on e-commerce activity. The OECD International VAT/GST Guidelines,¹⁸ which are complemented by detailed technical and practical guidance,¹⁹ promote effective and efficient VAT/GST solutions to address the challenges of digitalisation. These standards reflect a broad consensus, as they build heavily on the global dialogue and collaboration that is currently carried out through the Global Forum on VAT, which provides a platform for engagement with more than 100 jurisdictions, including many developing countries. The OECD and WBG, in partnership with regional organisations, have been promoting the implementation of these standards through the development of regional toolkits tailored to the needs of particular regions.

¹⁶ Note that in total, 55 Inclusive Framework members have been granted a deferral of their Action 14 Peer Review. This includes a number of countries and jurisdictions that are financial centres, and so are not included in the definition of developing countries for the purposes of this report. In addition, developing countries that have joined the Inclusive Framework recently are expected to request a deferral of their Action 14 Peer Review in the near future.

¹⁷ All figures quoted in sections 1.3 and 1.4 of this report are based on a stocktake of developing countries' progress as at 1 June 2021.

¹⁸ Available at <https://www.oecd.org/ctp/international-vat-gst-guidelines-9789264271401-en.htm>.

¹⁹ See [Mechanisms for the effective collection of VAT/GST where the supplier is not located in the jurisdiction of taxation](#); [The role of digital platforms in the collection of VAT/GST on online sales](#); and [The Impact of the Growth of the Sharing and Gig Economy on VAT/GST Policy and Administration](#).

More recently, in July 2021, 134 members of the Inclusive Framework,²⁰ representing more than 90% of worldwide GDP, reached an historic agreement on a two-pillar solution to address the tax challenges of digitalisation and introduce a global minimum tax on the profits of large MNEs.

The agreement demonstrates that developing countries can indeed play an active and influential role in international standard setting through their participation in the Inclusive Framework. This is not to say that the agreement reflects developing country preferences in all respects since all participants have recognised the need for compromise. Nevertheless, the level of inclusivity of discussions towards the two-pillar agreement stands in material contrast to those which took place on the original BEPS package which was developed prior to the active engagement of developing countries. A summary of some of the key aspects of the two-pillar agreement heavily influenced by developing country priorities can be seen in Table 1.1 below.

Box 1.6. BEPS Action 1: Measures to address the VAT/GST challenges of e-commerce

- 28 developing countries (60%) have enacted, proposed or are considering VAT/GST measures on e-commerce.

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

Table 1.1. Key aspects of the two-pillar agreement heavily influenced by developing country priorities

Addressing the tax challenges arising from the digitalisation of the economy	
Pillar One	Pillar Two
<ul style="list-style-type: none"> • Broad scope of application • Exclusion for extractive industries • Commitment to lowering the scope revenue threshold, contingent on successful implementation and tax certainty • Very limited segmentation, creating simplification benefits • Lower nexus threshold (particularly for smaller economies), with no 'plus factors,' meaning that smaller developing countries are far more likely to benefit • Dispute prevention and resolution in a mandatory and binding manner for Amount A and issues related to Amount A, while consideration to be given to an elective binding dispute resolution mechanism for issues related to Amount A for certain developing countries 	<ul style="list-style-type: none"> • Minimum effective tax rate of "at least 15%" welcomed by most developing countries • Jurisdictional, rather than global blending • Confirming importance of the Subject to Tax Rule (STTR), Inclusive Framework members that apply nominal corporate income tax rates below the STTR minimum rate to interest, royalties and a defined set of other payments, would implement the STTR into their bilateral treaties with developing country members when requested to do so • Confirming importance of substance-based carve-out, allowing developing countries to continue to offer incentives to attract real foreign direct investment • Substance carve-out that is mechanical rather than based on facts and circumstances

Source: OECD, based on analysis by the Secretariat.

²⁰ As at 1 September 2021.

The BEPS Actions on hybrid mismatch arrangements, controlled foreign corporations and mandatory disclosure (Actions 2, 3 and 12), do not appear to be high priority areas for most developing countries. Capacity constraints are likely to mean limitations in the utility of hybrid mismatch and mandatory disclosure regimes, while Controlled Foreign Company (CFC) rules may not be high priority for countries that are largely capital importers.

Addressing base eroding payments such as excessive interest (BEPS Action 4) is a key issue for most developing countries and a majority have domestic rules designed to limit interest deductions in some way.

While some developing countries have moved towards the Action 4 best practice, many countries' rules have weaknesses. For instance, rather than a direct limitation on interest by reference to earnings, many countries' rules are instead based on thin capitalisation provisions which limit the amount of debt that can be carried by taxpayers. In order to be effective, these need to be set at an appropriate level and combined with effective transfer pricing rules or other limitations on interest rates. In some cases, effective enforcement of these rules can be complex and resource intensive.

Moreover, many countries' rules cover only related-party debt (or interest on related-party debt), making them relatively simple for MNEs to circumvent. The rules may also use a narrow definition of interest, meaning that amounts that are economically equivalent to interest, such as guarantee fees or similar deductible expenses, which may pose similar risks, escape the measure.

Polling results from the series of regional consultation events confirmed that many developing countries consider their interest limitation rules could be improved. A significant number of participants also thought that additional guidance on other types of base eroding payments (particularly excessive royalties) is needed.²¹

Despite not being a minimum standard, Action 7 on preventing artificial avoidance of permanent establishment (PE) status is considered a priority by many developing countries. PE issues are considered by many source countries as a significant BEPS risk. Evidence for this can be seen in the results of polling during the regional consultation events,²² and even more concretely, by the number of developing countries including Action 7 provisions in their MLI positions.

Box 1.7. BEPS Action 4: Limitation on interest deductions

- 36 developing countries (77%) have some kind of interest limitation rules in place, of these:
 - 25 have thin cap based rules.
 - 22 have limitations only on related party debt (or only on shareholder debt).
- 5 developing countries have a cap on the allowable interest rate for inbound loans.

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

²¹ See responses to polling questions 3 and 4 at Annex C.

²² See responses to polling question 4 at Annex C.

Box 1.8. BEPS Action 7: Artificial avoidance of PE status

- Of 24 developing countries that have signed the MLI:
 - 22 have included at least one PE-related provision in their MLI position.
 - 16 have included all PE-related provisions.
 - PE provisions are matched in relation to 22 developing countries (about 300 treaties).
- Of 11 developing countries that have ratified the MLI:
 - 10 countries' PE provisions are matched, covering about 200 treaties.

Source: OECD, based on the review of the implementation of the BEPS package as at 1 June 2021.

Transfer pricing (addressed in BEPS Actions 8-10) is a significant BEPS risk and is considered by most developing countries to be amongst their highest priorities. There is close to universal acceptance of the international standard on transfer pricing, with the *OECD Transfer Pricing Guidelines* being regarded as highly influential across the globe for MNEs, tax officials and judiciaries.

Developing countries have also made significant progress in strengthening their rules and in building capacity in transfer pricing, backed by long-standing support programmes. Nevertheless, many developing countries continue to call for greater use of simplification measures or other means of streamlining the often complex application of the arm's length principle. Note that in this respect, developing countries have been strongly supportive of the Amount B element of the two-pillar solution to address the tax challenges of the digitalising economy, which would apply to certain marketing and distribution activities.

While the impact of developing country participation in the recent two-pillar agreement is encouraging, the picture painted by the empirical data on lower-income countries' progress in relation to the original BEPS Actions is more mixed. This reflects the steep learning curve many lower-capacity countries are on, as well as the fact that they were not active participants in the original BEPS agenda. While it is clear that lower-income countries are contributing to securing the integrity of the global tax system (e.g. by abolishing or amending harmful tax incentives regimes), in many cases they are yet to fully benefit from the advances made in countering BEPS, as can be seen from the challenges on CbC reporting. In addition, some of the BEPS Actions may not align closely with developing countries' highest priorities.

In order to ensure that the Inclusive Framework coalition remains strong and united, it will be important for the G20 to monitor and support progress of developing country members in implementing their priority BEPS Actions, as well as ensuring their active engagement in the Inclusive Framework workstreams going forward.

Overarching recommendation

In order to ensure the Inclusive Framework coalition remains strong and meets the needs of all of its members, further assessments on the progress of developing countries should be conducted on a regular basis. An annual assessment could take the form of a ministerial dialogue with developing countries and interested G20 members of the Inclusive Framework on issues such as:

- *Their progress in implementing measures to combat BEPS, including on the two-pillar agreement and areas that have been particularly challenging for developing countries such as Country-by-Country reporting;*
- *Their views on the work and priorities of the Inclusive Framework and its associated standards. This could include wider strategic issues such as the use of Inclusive Framework standards (e.g. listing) and the broader macro-economic impact of the two-pillar solution, including on Small Island Developing States.*

2 International norms and guidance: Making the BEPS agenda more effective for developing countries

2.1. Unlocking the benefits of implementing BEPS for developing countries

The stocktake in Chapter 1 showed that developing countries are making progress in implementing the BEPS Actions. It is also clear that despite capacity constraints, developing countries are playing their part in strengthening the international tax system. However, the stocktake also illustrated the challenges that must be overcome in order for developing countries to more fully benefit from the BEPS Actions. In addition to ongoing technical assistance and capacity building support, further guidance in a number of areas could make a difference to DRM efforts in developing countries, supporting their work to level the playing field and strengthening their commitment to multilateralism and the Inclusive Framework.

Country-by-Country Reporting

Although efforts are ongoing to support developing countries in meeting the CbC reporting requirements, consideration is needed on how to quicken the pace of progress and unlock benefits for a significant number of countries, while maintaining appropriate safeguards around confidentiality, consistency and appropriate use. This should ensure that lower-income countries join G20 countries in reaping the benefits of CbC reports, and do so within the consensus-based Inclusive Framework. As the Chapter 1 stocktake showed, only three non-OECD/G20 lower-income countries have so far been able to fully meet all the requirements of the standard and are currently able to receive CbC reports from abroad, despite CbC's flagship status in the BEPS package. Developing countries almost universally claim that transfer pricing is amongst their highest BEPS priorities, so their inability to access a key transfer pricing risk assessment tool is an important deficiency. Action may be needed if the pressure for local filing is to be resisted.

Feedback from developing countries suggests that the multiplicity of requirements to be fulfilled before CbC reports can be received from treaty partners is a significant impediment (see Box 2.1). Smaller developing countries which have no MNE groups meeting the CbC reporting threshold headquartered in their jurisdiction report that the obligation to enact domestic legislation on CbC reporting is a significant burden.²³

²³ Feedback from the OECD Secretariat's bilateral discussions with countries and results of polling question 2 in Annex C.

Meeting the confidentiality requirements under the AEOI Standard, as well as challenges associated with putting in place and implementing the requirements associated with exchange networks also pose challenges for many developing countries, particularly in terms of

Box 2.1. Elements of the CbC reporting minimum standard

In order to receive CbC reports from abroad, a jurisdiction must have:

- Domestic legislation requiring local MNEs that meet the CbC threshold to file a CbC report.
- A signed and ratified treaty instrument which provides for exchange (e.g. MAAC).
- A concluded CbC competent authority agreement (e.g. the CbC MCAA) with activated relationships, on a reciprocal basis.
- Passed the confidentiality assessment on a reciprocal basis (based on the AEOI standard).
- Been assessed as having controls in place to ensure appropriate use of CbC reports.

timeliness. While the importance of maintaining the confidentiality of taxpayer information received from treaty partners is not in question, some developing countries do raise doubts as to whether the current requirements are the best suited to CbC reports. For instance, where treaty-based exchange mechanisms are in place, consideration could be given to the selective use of spontaneous or on request exchange mechanisms to allow for the transmission of CbC reports, while safeguarding confidentiality and the other requirements of the Action 13 minimum standard. Proposals to make certain CbC reporting requirements public (as in the European Union and more recently, the US Congress), as well as the voluntary publication of CbC-style reports by some MNEs themselves, add to the constant pressure in some quarters to impose local filing requirements.

Efforts to reduce barriers to implementation would need to include upgraded capacity building and technical assistance. This would be particularly important as regards to putting in place legal mechanisms to receive CbC reports from abroad, and appropriately and effectively using CbC report information once received.

Further, although the adoption by developing countries of the Multilateral Convention on Mutual Administrative Assistance has been relatively strong, additional support could be helpful given that joining the Convention is a highly efficient way to increase a country's exchange network.²⁴ Moreover, additional political engagement to ensure necessary elements receive sufficient impetus should also be a priority (see also Chapter 3 and Recommendation 8). Based on experience thus far, capacity building would need to be increased by several orders of magnitude to enable progress to be meaningfully accelerated.

Recommendation 1

As a priority, all stakeholders, including Inclusive Framework members, should reflect on how Country-by-Country reporting could be made more accessible to developing countries, while also protecting confidentiality of sensitive information.

²⁴ See results to polling question 2 in Annex C. Difficulties associated with limitations in exchange of information networks or signing / ratifying the MAAC accounted for 20% of responses.

2.2. Tackling base eroding payments such as excessive interest, royalties, etc.

Many developing countries do not have robust, effective rules to limit excessive interest deductions and would welcome additional guidance on limiting other types of base eroding payments such as excessive royalties.²⁵ Base eroding payments were identified in the 2014 OECD report²⁶ to the Development Working Group of the G20 as a key DRM issue for lower-income countries. While BEPS Action 4 set out international best practices on limiting excessive interest deductions, the rules in many developing countries fall short of these best practices. Other kinds of base eroding payments are also problematic for many lower-income countries, and may be a particular concern in the natural resources sector.

Transfer pricing rules are generally available to help ensure deductible payments such as those relating to royalties, management or service fees, are not base eroding. However, many lower-capacity countries struggle to effectively ensure compliance with the arm's length principle and advise that simplification and/or anti-avoidance measures against these kinds of base eroding payments would be welcomed.

Against this background, the development of adapted guidance and tools tailored to the needs and capacities of lower-income countries could be beneficial: a toolkit approach which sets out policy choices and options may be particularly useful.²⁷ Guidance on base eroding payments is part of the PCT toolkit work plan, but has not (yet) been undertaken. Developing such guidance and tools in consultation with the Inclusive Framework could have material advantages, including reducing the risk of double taxation, and helping developing countries ensure that they are able to implement robust, internationally agreed rules that meet their policy requirements and priorities.

Recommendation 2

Assistance providers should develop additional guidance and other tools, adapted to the needs and priorities of developing countries for dealing with base eroding payments such as excessive interest and royalties, to provide additional pathways to strengthening their tax systems.

2.3. Implementing consensus-based solutions to the tax challenges of the digitalisation of the economy

The 1 July 2021 agreement reached on a two-pillar solution to address the tax challenges of digitalisation of the world economy represents a step change in the international tax system and demonstrates the effectiveness of more recent developing country participation in the Inclusive Framework. As the members of the Inclusive Framework advance discussions to develop detailed rules for implementing the high-level agreement, it will be essential that the voices of lower-capacity

²⁵ See results of polling question 4 in Annex C.

²⁶ Available at <https://www.oecd.org/tax/tax-global/report-to-g20-dwg-on-the-impact-of-beeps-in-low-income-countries.pdf>.

²⁷ For example, ATAF has published a range of guidance including a Suggested Approach to Drafting Interest Deductibility Legislation, available at https://events.ataftax.org/index.php?page=documents&func=view&document_id=21#.

countries continue to be heard, and that their priorities and needs are reflected in the rules. In particular, it will be important to prioritise simplification and streamlining wherever possible, and to ensure adequate technical assistance and capacity building support are available so developing countries can implement the new rules in a consistent and timely way. See Chapter 3.

2.4. Taxation in the natural resources sector

Many developing countries are natural resource-rich, and BEPS is often a significant risk to revenue in these sectors, particularly where there are large economic rents. The natural resources industries have potential to drive economic growth, provide employment, contribute to DRM goals and transfer real economic wealth to local communities. The magnitude of the sector cannot be understated, accounting for more than 20% of GDP for 41 developing countries, and more than 10% of GDP for a further 13 developing countries in 2019.²⁸ Non-renewable or extractives resource deposits are immobile and thereby provide a unique opportunity for resource-rich developing countries to benefit from their exploitation. However, being able to capitalise on such opportunities is not a given, and government revenues from these sectors are often low or highly volatile (see Box 2.2).

Box 2.2. Resource-rich governments face challenges in converting resource wealth into fiscal realities

For resource-rich developing countries, there will be few areas of economic policy in the coming decade that will be more important than ensuring the effective taxation of the natural resources sector. For many developing countries natural resources have, in the past, failed to deliver on expected fiscal benefits to governments and citizens. Indeed, OECD data has shown that government fiscal revenues from the extractives sector has shown a marked decline from 2013 to 2018 in the LAC and African regions,²⁹ which is not fully explained by commodity price fluctuations.

There are several reasons for this, including:

- A disparate and often incoherent fiscal framework due to legacy policy decisions and outdated laws.
- Unlike other segments of the economy, the application of tax laws in the extractives sector often lacks tax neutrality between taxpayers due to overly generous tax incentives or inappropriate fiscal stabilisations granted to individual projects or taxpayers.
- Aggressive BEPS strategies employed by MNEs, particularly in the area of transfer pricing.³⁰
- Corruption and state/regulatory capture which hinders the progress of legal reforms and tax administration initiatives.

²⁸ World Bank Group and World Mining Data.

²⁹ OECD Global Revenue Statistics Database, 2021: <https://www.oecd.org/tax/tax-policy/global-revenue-statistics-database.htm>.

³⁰ See for example, <https://www.oecd.org/tax/mongolian-tax-administration-partners-with-international-organisations-and-issues-first-transfer-pricing-tax-assessment-for-usd-228-million.htm>, and *Her Majesty the Queen v. Cameco Corporation*, 2020 FCA 112 [Cameco]; and *Commissioner of Taxation v Glencore Investment Pty Ltd* [2020] FCAFC 187.

For many resource-rich developing countries, the intra-group pricing of natural resource commodities and related activities remains an ongoing challenge. Whilst the *OECD Transfer Pricing Guidelines* provide guidance on pricing of commodities, particularly by reference to quoted prices, difficulties remain in cases involving vertically integrated MNEs where an intermediate product not normally traded between unrelated parties is sold. In response to this, as part of the toolkit for addressing difficulties in accessing comparables data for transfer pricing analyses, the PCT developed a supplementary report³¹ that set out policy guidelines to address challenges associated with mineral pricing. The OECD and its partner, the Intergovernmental Forum on Mining, Metals and Sustainable Development (IGF) will further advance the work by developing a toolkit that will focus on identifying the appropriate commodity indices for hard-to-value minerals, and expand on the practical application of pricing adjustments (e.g. based on physical characteristics of a mineral, delivery terms, and other economically significant factors).

Difficulties in determining prices in relation to transactions for natural resources can also arise where the related buyer and seller perform activities that differ from those typically undertaken by independent parties in the market. For instance, MNEs commonly use “marketing hubs” for commodity products in which the activities undertaken by each side differ from arrangements generally seen between independent parties. Such hubs often claim to assume significant risks in relation to the purchase, marketing and sale of the products, claims which many developing countries find difficult to test and challenge. While the *OECD Transfer Pricing Guidelines* were updated as part of the BEPS Action 9 to more comprehensively deal with risk allocation between related parties, the application of the guidance is fact-intensive and may be particularly challenging for lower capacity developing countries. Additional guidance on how the risk analysis framework and other aspects of the transfer pricing rules apply in the context of commodities marketing hubs will be useful. (See also section 3.3 on capacity building and the efficient and effective taxation of natural resources.)

Building on PCT guidance on the taxation of offshore indirect transfers of interests,³² further work applied to the extractive industries is needed. This work would elaborate on the regulatory and administrative considerations related to transfers of interests, such as different approaches to the valuation of mining licences, consideration of relevant administrative thresholds, and sector-specific information requirements.

In addition to the taxation of profits from the sale of the natural resources themselves, some resource-rich OECD countries include in their bilateral double tax agreements, an extended definition of a PE in relation to enterprises engaged in the exploitation or extraction of finite natural resources. The extended PE definition generally relates to the provision of onsite services: potentially an important source of value creation taking place within their territories. Such measures could also be of benefit to resource-rich developing countries. The future of this topic has not yet found consensus; discussion on the possibility of generalising these kinds of approaches is ongoing.

³¹ Toolkit for Addressing Difficulties in Accessing Comparables Data for Transfer Pricing Analyses (PCT, 2017): <http://www.tax-platform.org/sites/pct/files/publications/116573-REVISED-PUBLIC-toolkit-on-comparability-and-mineral-pricing.pdf>.

³² Produced in response to the 2014 report to the Development Working Group. See https://www.tax-platform.org/sites/pct/files/publications/PCT_Toolkit_The_Taxation_of_Offshore_Indirect_Transfers.pdf.

Recommendation 3

In light of the importance of natural resources to a significant number of developing countries' domestic resource mobilisation efforts, the OECD Secretariat, together with relevant partners including the Intergovernmental Forum on Mining, Minerals and Sustainable Development (IGF) should develop practical tools and guidance on:

- *Mineral pricing to help developing countries ensure that they are able to effectively raise government revenues from non-renewable resources;*
- *Transfer pricing and profit allocation issues related to commodities marketing hubs, which many developing countries report as posing significant BEPS risks; and*
- *The taxation of offshore indirect transfers in the natural resources industries. This guidance would build on the toolkit developed by the PCT, which identified these issues as particularly significant in the natural resources sectors.*

2.5. Simplification measures for transfer pricing

Generalising the use of simplification or streamlining measures relating to the application of the transfer pricing rules would benefit lower income-countries while maintaining the general application of the arm's length principle. For lower-capacity countries, a lack of data on (local) comparables contributes significantly to the challenges of applying the transfer pricing rules. In response, simplification measures, including the use of fixed margins or other prescriptive approaches were recommended by the PCT in its toolkit on addressing a lack of access to comparables.³³

Developing countries have voiced strong support for the development of streamlined and simplified approaches for commonly-encountered marketing and distribution activities, as have been included as part of the two-pillar solution ("Amount B"). It will be essential that developing countries continue to have a strong voice in this ongoing work and that it is developed in a timely fashion taking into account their priorities and capacity constraints (see also section 3.2).

³³ The toolkit was developed in response to the 2014 report to the Development Working Group and is available at <https://www.tax-platform.org/sites/pct/files/publications/116573-REVISED-PUBLIC-toolkit-on-comparability-and-mineral-pricing.pdf>.

3 Supporting developing countries' domestic resource mobilisation efforts through technical assistance and capacity building

3.1. Introduction

Capacity building has been vital in supporting the implementation of international tax standards.

Capacity building programmes will need significant investment to support developing country involvement in the completion of the two-pillar agreement to address the tax challenges of digitalisation (e.g. in negotiating a multilateral convention and finalisation model legislation), as well as successfully implementing the agreement against an ambitious timeline.

A range of development partners are involved in these capacity building efforts, often working in close partnership, including the members of the PCT, regional tax organisations and government-led bilateral programmes. This chapter focuses on those programmes operating under a framework set by the OECD Secretariat to support developing countries in the implementation of BEPS Actions and in their integration into the Inclusive Framework.³⁴ OECD capacity building in international tax has evolved from a multilateral outreach and training programme established over thirty years ago to a comprehensive range of initiatives including e-learning, bespoke country programmes, and hands-on, peer-to-peer learning through the TIWB initiative. Countries are able to combine different programmes to meet their specific needs (see Box 3.1 for an overview of the various types of capacity building programmes conducted or supported by the OECD Secretariat and partners).

³⁴ See - <https://www.tax-platform.org/medium-term-revenue-strategy>.

Box 3.1. Capacity building programmes conducted by the OECD and partners

Inclusive Framework Induction Programmes

- Lower-capacity members of the Inclusive Framework can request an induction programme to support their introduction to the Inclusive Framework and implementation of the BEPS actions. Induction programmes are generally launched with high-level meetings to secure political commitment and confirm the country's priorities. This is followed by the development of a country-owned action plan to identify the steps needed to implement the corresponding BEPS Actions.
- 43 members of the Inclusive Framework have induction programmes.

Bespoke Country Programmes on Transfer Pricing and BEPS

- Developing countries (including non-members of the Inclusive Framework) which are highly committed to implementing international standards on transfer pricing and/or other BEPS Actions, and require intensive support, can request a bespoke country programme. These programmes run over multiple years and are tailored to the specific country requirements; this can include legislative change, organisational restructuring and training staff, or all three.
- Since 2012, 42 countries have benefitted from a bespoke country programme.
- Some of these programmes are run in partnership with other organisations, including ATAF and the WBG.

“Deep Dive” Bespoke Country Programmes for Mineral-Rich Countries

- Since 2019, a new country programme for mineral-rich countries has been piloted, providing sector-specific capacity building to address taxation of natural resources.
- Five pilot programmes are currently running.
- These programmes are run in partnership with the IGF and ATAF.

Tax Inspectors Without Borders

- Since 2015, TIWB has provided hands-on assistance to build audit and related skills, through working on live cases.
- TIWB programmes have been completed, or are currently running in 51 countries, with programmes in a further 10 countries in the pipeline.
- More than USD 1.4 billion in additional revenues has been raised through TIWB programmes and the linked audit support programmes run by the OECD, ATAF and WBG. Further, nearly USD 3.9 billion in additional tax has been assessed.
- The initiative is a joint project of the OECD and United Nations Development Programme (UNDP); TIWB works in partnership with organisations including ATAF, the *Centro Interamericano de Administraciones Tributarias* (CIAT) and WBG.
- The TIWB model is being expanded beyond the audit of MNEs into new areas including criminal tax investigations and the effective use of information received through AEOI.

Global Relations Programme on Taxation (GRP) Training

- The GRP has been providing training on international tax standards since 1992. Until recently training was delivered solely through face-to-face workshops, mainly hosted by a number of

multilateral tax centres around the world. In recent years the offering has expanded to e-learning courses, while virtual workshops have been introduced in response to the COVID-19 pandemic.

- Around 30 000 tax officials took part in GRP training in 2020.
- The Knowledge Sharing Platform for Tax Administrations (KSP_{TA}) is a new online resource for sharing knowledge and expertise in tax administration and acts as the gateway to the GRP.

Platform for Collaboration on Tax (PCT) Toolkits

- One of the key activities of the PCT is to ‘develop appropriate tools for developing countries in the taxation of MNEs, including in relation to the new measures from the BEPS reports.’³⁵
- In this context the G20 mandated the Platform Partners (IMF, OECD, UN, WBG) to prepare a series of toolkits on international tax challenges that had been identified as high priority for low income countries.
- Five toolkits have been produced, they provide guidance on tax incentives, tax treaty negotiations, offshore indirect transfers, lack of access to transfer pricing comparables, and transfer pricing documentation.
- The toolkits have been integrated into other capacity building programmes, including the GRP.

Evidence shows that consistent, co-ordinated support over the medium to long-term provides significant benefits to developing countries including stronger rules, greater capacity, and increased tax revenues. While there are a number of challenges to monitoring and measuring the impact of capacity building programmes, not least the timescales involved, there is growing evidence that shows the concrete, positive results of capacity building efforts. Most directly, TIWB programmes are able to track their revenue impacts, with more than USD 1.4 billion in additional revenues raised through TIWB programmes and the linked audit support programmes run by the OECD, ATAF and WBG. Furthermore, nearly USD 3.9 billion in additional tax has been assessed, indicating the potential scale of further revenues in the pipeline. More broadly, the cumulative impact of prolonged capacity building can be observed in a number of countries, which through a combination of legislative and organisational reforms, and skills building, are increasingly able to effectively enforce international standards. For example, the experience in Zambia (see Box 3.2) demonstrates the importance of a long-term perspective, with substantial positive results built through systemic engagement over a period of seven years. The experience in Mongolia (see Box 3.3) emphasises the scale of existing BEPS issues and the potential benefits of effective capacity building in addressing them.

³⁵ See PCT concept note - <https://www.tax-platform.org/sites/pct/files/publications/104902-SECOND-REVISION-concept-note-platform-for-collaboration-on-tax.pdf>.

Box 3.2. Zambia – Victory in the Supreme Court

Since 2013, Zambia has been supported by a long-term ATAF/OECD/WBG technical assistance programme. Over the years, this programme has evolved to respond to different issues arising in Zambia's particular circumstances, including the addition of a TIWB programme, an ATAF/IGF/OECD 'deep-dive' programme focussed on the mining sector, and a Global Forum programme on transparency and EOI.

Over this period Zambia has reformed its legislation and regulations and has reorganised the Zambia Revenue Authority (ZRA) to enable it to more effectively tax the MNEs operating in Zambia. Key milestones include:

- Setting up of a transfer pricing unit in March 2016.
- Extensive international tax reform in 2018-19 strengthening ZRAs powers to address non-compliance, and provide increased certainty:
 - New transfer pricing (and TP documentation) regulations (BEPS Actions 8-10);
 - New interest limitation legislation (BEPS Action 4);
 - New transfer pricing Practice Note;
 - Revised transfer pricing legislation on the pricing of copper and other metals;
 - New transfer pricing Audit Manual for ZRA officials.³⁶

In total, USD 111 million of additional tax has been collected since 2015. This includes USD 13 million following ZRA's May 2020 victory in the Supreme Court which ruled against Mopani Copper Mines plc (MCM). The Mopani case related to the prices used by MCM for copper sold to its shareholder company in Switzerland. Enhancing the ZRA's capacity to pursue the Mopani case was a high priority for ATAF/IGF/OECD, the case being one of Zambia's first very large transfer pricing cases. Utilising the advice and training received through the technical assistance programme, the ZRA was able to build its case, contending that Mopani under-priced the copper sold to its shareholder.

The Supreme Court victory shows the impact that focussed transfer pricing work can have in developing countries, even where resources in the tax administration are limited.

Source: OECD (2021), *Building capacity to prevent profit shifting by large companies in Zambia*, OECD, Paris, <https://www.oecd.org/countries/zambia/building-capacity-to-prevent-profit-shifting-by-large-companies-in-zambia.pdf>.

The value of OECD capacity building programmes has been recognised by a range of third-party stakeholders. For example:

- Independent evaluation of OECD tax training programmes in 2019 found 94% of participants were satisfied with the event, and 84% of participants anticipated the training would have a high impact in their tax administration.
- The UK Independent Commission for Aid Impact highlighted the positive results of OECD capacity building (while also stressing the need to ensure sustainability of programmes).
- ATAF recognised the OECD with a 'Valued Partner Award' in 2019 in recognition of the impact of OECD support and expertise in building the capacity of both ATAF and African tax administrations.

³⁶ The Transfer Pricing Practice Note and Audit Manual were developed based on Suggested Approaches published by ATAF.

- The UK Foreign, Commonwealth and Development Office (previously Department for International Development) has consistently scored OECD tax technical assistance 'A'.

Box 3.3. Mongolian Tax Administration issues first transfer pricing tax assessment for USD 228 million

Since 2019, the OECD, TIWB and IGF have been working with the Mongolian Tax Administration to strengthen revenue collection from the extractives sector, which contributed more than 80 percent of Mongolia's exports and 24% of fiscal revenues in 2019. As a result of the mining tax audit capacity building initiatives, the Mongolian Tax Administration issued its first transfer pricing tax assessment in late 2020 for approximately USD 228 million and a denial of USD 1.5 billion in carried forward losses. The Tax Act ("tax assessment") was reported by the taxpayer's parent entity on 23 December 2020 and although the matter currently remains under dispute, this represents a significant milestone and step forward for the Mongolian Tax Administration in executing its strategy to combat BEPS in the mining sector. The recent tax assessment builds upon focussed efforts by the Mongolian Tax Administration and the Ministry of Finance to align the country's tax rules and practices with international best practices. Having joined the OECD's BEPS Project and the Global Forum, Mongolia is successfully implementing the BEPS measures by introducing a number of international taxation provisions.

Source: Mongolian Tax Administration partners with international organisations and issues first transfer pricing tax assessment for USD 228 million, 2021, <https://www.oecd.org/tax/mongolian-tax-administration-partners-with-international-organisations-and-issues-first-transfer-pricing-tax-assessment-for-usd-228-million.htm>.

Effective capacity building requires contributions from a wide range of partners, especially G20 members. The scale and range of resources and expertise required to deliver effective capacity building is beyond the capabilities of any one country or institution. Many capacity building programmes are partnerships bringing together various actors including national governments, regional tax organisations and international organisations. G20 members are especially valuable partners due to their combined political, economic and technical resources which can support developing countries. G20 members have been strong supporters of a range of OECD international tax capacity building efforts in developing countries, as can be seen in Figure 3.1 below.

Figure 3.1. G20 contributions to OECD capacity building on international tax matters

G20 Contributions to OECD Capacity Building on International Tax Matters	
Argentina	Provides experts to the GRP; hosts a Tax and Crime Academy.
Australia	Provides experts and funding to the GRP; partner in an OECD twinning programme to support the implementation of BEPS measures in Papua New Guinea. Provides funding for exchange of information capacity building.
Brazil	Hosts GRP events for officials from Brazil and other countries in the region.
Canada	Developed the KSP _{TA} and runs the yearly independent GRP evaluation; provides experts to the GRP and to TIWB; provides support to Jamaica through an OECD twinning programme. Co-chairs the Forum on Tax Administration's (FTA) Capacity Building Network. The Canada Revenue Agency Commissioner is a TIWB Governing Board member.
China	Hosts six GRP events per year through its Multilateral Tax Centre (MTC) in Yangzhou. Co-chairs FTA Capacity Building Network.
France	Provides experts to the GRP and to nine TIWB programmes; provides funding for exchange of information capacity building.
Germany	Provides experts to the GRP and to one TIWB programme; provides funding for BEPS capacity building and Africa Tax and Crime Academy.
India	Hosts two GRP events per year; provides experts to the GRP and to five TIWB programmes.
Indonesia	Hosts three GRP events per year; provides experts to the GRP; is an official TIWB Partner Administration.
Italy	Provides funding and experts to the GRP; provides experts to three TIWB programmes; hosts a Tax and Crime Academy.
Japan	Provides experts and funding to the GRP; hosts GRP events and a Tax and Crime Academy; provides funding to all OECD tax capacity building programmes.
The Republic of Korea	Hosts six GRP events per year through its MTC in Korea; funds countries in the region to participate in the GRP.
Mexico	Hosts three GRP events per year through its MTC in Mexico; provides experts to the GRP, and to three TIWB programmes.
Russia	Provides experts to regional BEPS capacity building events.
Saudi Arabia	Hosted tax and development dialogue events, including the G20 Ministerial Symposium on International Taxation in 2020 and the International Zakat and Tax Conference organised by the General Authority of Zakat and Tax in 2019.
South Africa	Hosts two GRP events per year; provides experts to the GRP, and to three TIWB programmes.
Turkey	Hosts six GRP events per year through its MTC in Ankara; provides experts to the GRP.
United Kingdom	Provides funding and experts to the GRP, and to seven TIWB programmes, Provides funding to all OECD capacity building programmes.
United States	Provides experts to the GRP and to two TIWB programmes.
European Union	Provides funding for exchange of information capacity building, Revenue Statistics in Africa, and country/regional programmes on international tax in Tunisia, Egypt and ECOWAS.

3.2. Technical assistance and capacity building support to implement the two-pillar agreement on digitalisation

The two-pillar agreement on addressing the tax challenges of digitalisation will increase the demand for capacity building in the coming years. While most developing country members of the Inclusive Framework have endorsed the recent two-pillar agreement, many have noted that the novelty and complexity of the reforms will mean an increased need for technical assistance and capacity building, in order to implement the measures in an effective and timely fashion. Moreover, although they have joined the agreement, many developing countries have expressed concerns relating to aspects of the agreement, such as those relating to enhanced tax certainty, the effects on tax incentives regimes and the need to abolish digital services taxes. As the two-pillar agreement will co-exist with current international tax rules such as those governing transfer pricing, the capacity building requirements will be additional to the existing demand for implementation of transfer pricing and the other original BEPS Actions.

Development partners, including G20 members, can support a major new capacity building programme led by the Inclusive Framework to ensure effective and timely global implementation of the two-pillar agreement and to maintain the unity of the Inclusive Framework coalition. A failure to respond to the need for capacity building would delay global implementation of the new standards, and risk undermining the commitment of low-capacity developing countries to implementation, and to the Inclusive Framework more generally. Substantial additional resources will be required both in the form of financial resources and through making expertise available. As with the implementation of the 2015 BEPS Actions, ensuring this capacity building is under the supervision of the Inclusive Framework will be vital to enable access to the expertise in the Inclusive Framework and for feedback to flow easily between developing countries and other members of the Inclusive Framework. Examples of the support needed are listed in the Box 3.4 below. As with existing capacity building programmes, this new initiative will also benefit from the expertise of other assistance providers, and a range of partnerships will be needed.

The implementation of Amount B, strongly favoured by many developing countries, may help reduce the need for capacity building in some areas, and so should be prioritised. Amount B of Pillar One is designed to reduce the complexity of transfer pricing for certain marketing and distribution activities that, while routine, account for a disproportionate number of disputes. As such, the effective introduction of Amount B may play a role in reducing the demands on, and capacity building needs of, tax administrations in this aspect of transfer pricing. Given the increased demands being made on developing countries for the implementation of other aspects of the agreement, ensuring that the simplification offered by Amount B can be realised as soon as possible is essential.

Box 3.4. Examples of support to be provided to developing countries on the two-pillar agreement

Pillar One

- Assist developing country Inclusive Framework members at each stage of the implementation process relating to enacting domestic legislation or other international public law instruments, including:
 - Support on the development of domestic legislation;
 - Support relating to the negotiation of a multilateral convention or bilateral conventions (depending on the nature of the final agreement);
 - Assistance on the processes relating to signature and ratification of such conventions.
- Support developing country Inclusive Framework members in administering Amount A, and reviewing related tax returns (e.g., revenue sourcing rules, book-to-tax adjustments, segmentation), including by participating effectively in the centralised administration system.
- Support developing country Inclusive Framework members to participate effectively in the tax certainty panel process for Amount A, as well as in other agreed tax certainty processes as required.
- Help developing country Inclusive Framework members understand the new international tax environment under Pillar One and the implications for other areas of domestic tax policy design.
- Support developing country Inclusive Framework members to participate actively in the development and implementation of Amount B.

Pillar Two

- Support developing country Inclusive Framework members with implementing the subject to tax rule (STTR), including through participation in a multilateral instrument (depending on the nature of the final agreement).
- Assist developing country Inclusive Framework members in implementing the Global Anti-Base Erosion (GloBE) rules (i.e. the Income Inclusion Rule and the Undertaxed Payments Rule), including as they relate to legislative / regulatory reforms.
- Support developing country Inclusive Framework members wishing to participate in any multilateral process that is developed to facilitate co-ordination of the GloBE / STTR rules. This may include identifying countries with GloBE rules that are considered to be examples of best practice.
- Assist developing country tax administrations to put in place the necessary compliance processes to facilitate administration and compliance with the STTR and the GloBE rules, as well as building capacity within their administrations to enforce the rules.
- Support developing country tax administrations to effectively administer the GloBE rules including development of additional guidance, technical assistance and capacity building.
- Help developing country Inclusive Framework members understand the new international tax environment under Pillar Two and the implications for other areas of domestic tax policy design.

Pillar Two and its relationship to tax incentives regimes

Significant numbers of developing countries consider tax incentives as an important tool to encourage foreign direct investment. A substance-based carve-out has been incorporated into the Pillar Two

agreement as a result. Developing countries may require support in relation to adjusting existing incentives regimes, in particular, there may be specific legal and practical issues associated with incentives granted via individual contracts (especially where guaranteed for a specific period) or arising from interactions between Pillar Two measures or changes to tax incentives and bilateral investment treaties. More generally, a structured understanding of how tax incentive regimes apply across the world and how they interact with Pillar Two will be needed to support countries through the implementation phase.

Recommendation 4

Development partners, including G20 members, should, as a priority, support a major Inclusive Framework initiative, to be launched in early 2022, to provide capacity building support and technical assistance to ensure developing countries can adopt and implement the Pillar One and Pillar Two measures in an appropriate and timely fashion.

3.3. Enhancing technical assistance and capacity building efforts

There is a clear need for further expansion in capacity building in addition to support on the two-pillar agreement, including sector-specific support. Feedback from developing countries reveals significant unmet demand for further capacity building on international taxation. Regional consultation events identified that tax treaties, dispute prevention and avoidance, and tax administration were the highest priorities for further assistance.³⁷ There is also demand for more dedicated support for the effective taxation of specific sectors. While natural resources is an obvious priority in resource-rich countries (see section 3.5), there is also a need for support in other highly specialised sectors such as financial services and telecommunications (see Box 3.5).

³⁷ See results of polling question 6 in Annex C.

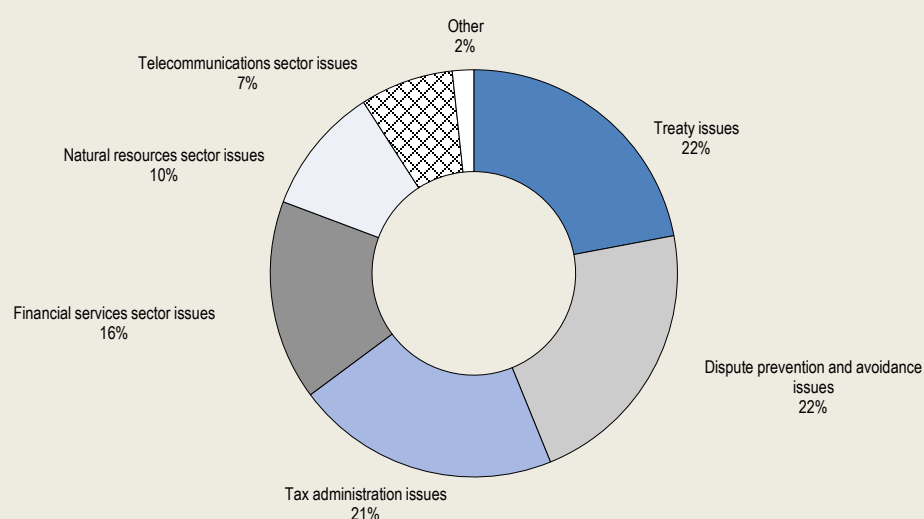
Box 3.5. Priority areas for capacity building assistance

Polling results and the outcomes of panel discussions in the series of regional consultation events show a high demand across all regions for practical support programmes in the following areas:

- tax treaties,
- dispute prevention and avoidance (including through use of the MAP) and,
- tax administration.

Aggregating the polling results from all meetings, each of these three areas recorded around 20% of responses. The strong response for dispute prevention and avoidance demonstrates the importance of the issue to the subset of countries that have significant international compliance programmes.

Polling Question: What areas should be a priority for practical support programmes?



Regarding support programmes focussed on specific industries, the results from the meetings show stronger regional differences. For instance, one region identified financial services sector issues as highest priority for capacity building assistance, whereas another region ranked natural resources sector issues including commodities hubs as highest priority alongside with telecommunication sector issues. The particular focus on natural resource taxation in this report reflects the “make-or-break” nature of the sector for resource-rich developing countries.

Source: Answers gathered during the Regional consultations that took place between 31 May and 9 July 2021.

Practical, peer-to-peer support is highly valued, and should continue to expand. The TIWB model of hands-on peer-to-peer support is highly effective and demand for it continues to increase, including for support from sector-specific experts. The principal limiting factor for TIWB expansion is the availability of experts, and further efforts should be made to encourage administrations with appropriate experts, especially those with relevant language skills, to participate in the programme. In addition, polling results from regional consultation events indicate that many developing countries consider peer-based regional co-operation and co-ordination to be extremely effective both in terms of building technical capacity and in encouraging greater engagement with policymakers. Most existing capacity

building programmes are undertaken in partnership or co-ordination with regional partners, and this should continue to be encouraged.

Demand for capacity building extends throughout government, requiring whole-of-government approaches covering technical, administrative and political aspects. Tax reform does not exist in a vacuum and requires a range of skills and capabilities across government; from technical analytical skills to policy design, through translating technical policy into appropriate legislative measures to be passed by politicians (which itself often requires effective communication materials to ensure that the measure receives appropriate priority and can withstand competing pressures), to effective administration for implementation. Weaknesses in any stage can delay and/or weaken reforms. Capacity building efforts should therefore seek to extend beyond the current focus on tax administration to include strong engagement with policy makers responsible for legislative and regulatory reforms. This may require new partnerships to be established.

International taxation reform is one of several reform priorities for countries and can benefit from inclusion in broader tax system reform plans. A Medium Term Revenue Strategy (MTRS) approach, as set out by the PCT, is one framework countries may adopt to support broad tax system reform over a four to six year timeframe. An MTRS combines political commitment with tax reform objectives linked to revenue goals, and encourages development partners to align support to the strategy.³⁸

Leveraging technological solutions to enhancing capacity in tax administration

In addition to the above, there are opportunities to leverage technological solutions to support enhancing the effectiveness and efficiency of tax administration in international taxation. For example, digitalisation and automation of processes has become best practice in many areas of tax administration, from data analysis for risk assessment, to technological solutions for compliance enforcement. Effective digitalisation is likely to be a key component in enabling countries to make the most of the international standards established by the Inclusive Framework and on exchange of information. For example e-administration can improve security and help accelerate progress towards meeting AEOI confidentiality standards, which in turn, would provide a pathway to receipt of CbC reports and other information to combat tax avoidance and evasion. As many countries, especially the 53 members of the FTA, have made significant advances in digitalisation of tax administration, there is significant best practice to draw on to establish new capacity building initiatives. Unlocking this experience and expertise held within FTA tax administrations is therefore vital, and should be encouraged, including through the activities of the FTA Capacity Building Network. The digitalisation of tax administration is not limited to international tax dimensions however, and will often be best considered as part of a system-wide reform process; this is discussed in further detail in Chapter 5.

Efficient and effective fiscal frameworks for natural resources

Given the importance of natural resources to many developing countries, an expansion of the “Deep Dive” programmes with mineral-rich developing countries is warranted. These holistic programmes, conducted by the OECD Secretariat, the IGF and regional development partners, will complement the additional guidance discussed in section 2.4 in supporting DRM efforts. The focus on fiscal frameworks for mineral resources is also well aligned with the clean energy agenda which will drive significant demand for critical minerals such as copper, nickel, silicon, zinc, manganese, lithium

³⁸ See - <https://www.tax-platform.org/medium-term-revenue-strategy>.

and rare earth elements,³⁹ while creating risks of declining demand and stranded assets in fossil fuels sectors such as oil and gas. In the natural resources sector in particular, a range of inter-linked policy and governance issues mean it is essential to ensure capacity building support is considered on a whole-of-government basis (see also Box 2.2).

Recommendation 5

Development partners and assistance providers, including G20 members, should deliver expertise and financing to:

- *Intensify and continue the current tailor-made technical assistance and capacity building initiatives which have been shown to provide significant benefits over the medium to long term and expand the work to support capacity building on tax treaty related matters including the prevention and resolution of tax disputes through effective use of the Mutual Agreement Procedure (MAP) where the consultation process exposed needs;*
- *Further strengthen Tax Inspectors Without Borders (TIWB) and similar peer-based tax compliance initiatives, with a focus on strategic industries and issues, including natural resources, the financial services and telecommunications sectors; and issues such as improving tax administration;*
- *Expand the “Deep Dive” capacity building programmes, conducted by the OECD Secretariat with the Intergovernmental Forum on Mining, Minerals and Sustainable Development (IGF) and other partners, to support developing countries capitalise on their mineral resources.*

Recommendation 6

All Inclusive Framework stakeholders should encourage and support greater political awareness and buy-in on the need for legislative and administrative reform, including by engaging with parliaments and other policy makers at the highest levels.

Encouraging voluntary compliance and increased tax morale is an integral part of building an efficient international tax system, and requires a constructive dialogue with business stakeholders. All tax systems rely on high levels of voluntary compliance; this is especially important for capacity-constrained administrations, as it preserves scarce resources for the most consequential risks and worst offenders. Building voluntary compliance is challenging, and cannot be undertaken by tax administrations alone, it requires actions by taxpayers too, both through working with tax administrations to improve the design of compliance processes, and through working internally, and with other taxpayers to build high standards of compliance and tax morale. Ongoing research by the OECD has been investigating how large taxpayers and tax administrations perceive each other, and

³⁹ IEA (2021), The Role of Critical Minerals in Clean Energy Transitions, IEA, Paris <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions>.

has identified a number of challenges, especially in trust and communications. There is significant scope for more work in this area, including improving business voluntary principles on tax and exploring the potential of co-operative compliance in capacity constrained contexts.

4 Inclusivity and governance of the Inclusive Framework

4.1. Introduction

The establishment of the Inclusive Framework in 2016 under a mandate⁴⁰ from the G20 has brought about a huge increase in the inclusivity of the international tax architecture. As was noted in Chapter 1, developing countries now make up around one-third of the membership of the Inclusive Framework.⁴¹ This has resulted in a significant transformation of international tax policymaking, with decisions no longer made by OECD members only, but through a truly inclusive body comprising countries from all regions and levels of development. However, effective participation and full integration into this new architecture by lower-capacity countries continue to be a challenge, in spite of the support of many development partners.

The recent two-pillar agreement demonstrates that the new international tax architecture can work for developing countries, but some struggle to effectively participate in practice. For instance, lower-capacity countries find it challenging to keep pace with multiple technical workstreams, particularly where they may have only a handful of technical staff responsible for all aspects of international taxation. Lower-capacity countries may face challenges in analysing the impact of various proposals on their economies or their tax revenues. They may also not have built up long-term institutional knowledge and negotiation skills relating to complex multilateral discussions. Further, only a limited number of developing countries consistently attend technical level meetings, due to the associated travel costs (for face-to-face meetings), as well as competing priorities.⁴² This is exacerbated for some by the fact that highly technical discussions take place in a foreign language.⁴³

Limited lower-capacity country representation and participation, as well as scarce opportunities for collaboration among these countries to articulate common positions, have meant that developing countries have typically had less influence on setting the Inclusive Framework agenda, establishing priorities and putting forward proposals, often limiting themselves to reacting to other countries' positions. To some

⁴⁰ See Communiqué, Meeting of G20 Finance Ministers and Central Bank Governors, Cairns, September 21, 2014.

⁴¹ For further information on the Inclusive Framework, its work and governance, as well as on how decisions are taken and relevant stakeholders involved, consult the OECD's BEPS website and the frequently asked questions available at <https://www.oecd.org/tax/beps/faq/>. The list of members of the Inclusive Framework is available at <https://www.oecd.org/tax/beps/inclusive-framework-on-beps-composition.pdf>.

⁴² See Christensen, RC, Hearson, M and Randriamanalina, T (2020), *op cit*. The paper reports that “in 2019, only 5.4 per cent of working party attendees represented lower-income countries. The same goes for working party bureaux, where participation by lower-income countries is almost non-existent [...] As a whole, non-OECD countries represent less than 25 per cent of working party attendees, despite making up almost 75 per cent of IF membership” (page 12).

⁴³ *Idem*. The paper notes that “a high barrier in terms of technical knowledge” and “the speed of policymaking” are major concerns, in many cases combined with “the demands of working in a foreign language” (page 14).

extent, changes are starting to be seen in this regard, particularly in the recent two-pillar agreement, as developing countries become familiar with Inclusive Framework processes.

This chapter sets out a number of concrete proposals to help lower-income countries capitalise on recent progress, continue to lower existing barriers and effectively engage in the Inclusive Framework. These include improvements to existing structural frameworks and governance arrangements, as well as complementary practical measures to support lower-capacity countries to effectively participate in key meetings.

4.2. Governance arrangements and structure

Recognising the diverse membership of the Inclusive Framework, which includes different types of non-OECD economies, current chairing arrangements could evolve to comprise two co-chairs, including one from a non-OECD/non-G20 economy. Feedback from regional consultation events on practical ways to enhance inclusivity indicated strong support for greater representation by developing countries in the leadership of the Inclusive Framework and its subsidiary bodies.⁴⁴ Similar co-chairing arrangements could be considered for the Working Parties and other subsidiary bodies. In addition, consideration could be given to the revision of the memberships of the bureaux or steering groups of the subsidiary bodies, to ensure that they more systemically include representatives from a range of non-OECD economies, including lower-capacity countries.

The role of the Advisory Group for Co-operation with Partner Economies (Advisory Group) could be updated to provide an effective platform for officials from developing countries to exchange views, articulate positions and contribute inputs into the work of the OECD Committee on Fiscal Affairs (CFA) in its Inclusive Framework format. The Advisory Group⁴⁵ has traditionally focused on capacity building, but it could play a role in amplifying developing country participation in the work of the Inclusive Framework, helping to ensure that their perspectives are reflected in the agenda and priorities of the Inclusive Framework as well as the development of standards and guidance. With the appointment of a developing country Co-Chair (Ms Marlene Parker, Jamaica), the evolution of the Advisory Group towards such a role is already well prepared.

Finally, while information on the Inclusive Framework and its work is available,⁴⁶ opportunities exist to build on these communication tools to promote greater transparency and foster trust and confidence in Inclusive Framework-related processes. For instance, information could be provided publicly on developing country participation in Inclusive Framework and subsidiary body leadership groups and meetings.

Recommendation 7

The Inclusive Framework stakeholders should, as a priority, reflect on governance arrangements to ensure a broad and systematic inclusion of developing countries. This could include consideration of representation in the leadership of the Inclusive Framework and its subsidiary bodies, and updating the mandate of the Advisory Group for Co-operation with Partner Economies.

⁴⁴ See results of polling question 7, at Annex C.

⁴⁵ For further information on the Advisory Group for Co-operation with Partner Economies, consult the OECD's website at <http://www.oecd.org/tax/tax-global/advisory-group-for-co-operation-with-partner-economies.htm>.

⁴⁶ [Base erosion and profit shifting - OECD BEPS; Frequently Asked Question OECD BEPS.](#)

Working Party No. 9 on Consumption Taxes and the Inclusive Framework

In light of the growing importance of VAT/GST to DRM efforts in developing countries, there may be advantages to bringing WP9 under the scope of the Inclusive Framework. WP9 is responsible for the development of international standards including the *OECD International VAT/GST Guidelines* and associated implementation guidance.⁴⁷ It has been working to address issues identified in the BEPS Action 1 Report on the effects of digitalisation on VAT/GST policy and administration. Incorporating WP9 into the Inclusive Framework could reinforce the global dialogue on international VAT/GST standards, which is currently carried out through the Global Forum on VAT that provides a platform for engagement with more than 100 jurisdictions. Developing countries have also noted the potential advantages of bringing VAT matters under the umbrella of the Inclusive Framework (see Chapter 5).

Recommendation 8

In light of the growing importance of VAT/GST and the cross-overs between the work of Working Party No. 9 on Consumption Taxes (WP9) and the Inclusive Framework, the Inclusive Framework stakeholders should consider, as a priority, integrating WP9 into the scope of the Inclusive Framework.

4.3. Practical support for effective participation by lower-capacity countries

Financial and human resource constraints faced by developing countries significantly affect their capacity to attend and actively engage in Inclusive Framework discussions. Judicious use of virtual meetings, combined with providing funding in exceptional circumstances for developing country representatives to travel to face-to-face meetings, could help to overcome these barriers. The shift to online meetings in 2020 due to the COVID-19 pandemic allowed more officials from developing countries to participate.⁴⁸ However, virtual meetings also present disadvantages that impact on the effectiveness of the discussions, particularly for more intense and complex negotiations. Less experienced participants may find it even more difficult to engage, and there is limited room for informal interactions that can help build understanding and trust. Time differences between different geographic locations set limits on virtual meetings, exacerbating the challenges in terms of speed and intensity of the discussions. In the future, a hybrid approach to meetings, using virtual meetings for less complex or preliminary discussions and

⁴⁷ See report on “*Mechanisms for the effective collection of VAT/GST where the supplier is not located in the jurisdiction of taxation*” and report on “*The role of digital platforms in the collection of VAT/GST on online sales.*”

⁴⁸ More than 60 lower-income members participated in each Inclusive Framework plenary session held virtually in 2020 (though this number includes some jurisdictions which are OECD or G20 members, or are considered to be a financial centre), while less than 40 attended in-person meetings held in 2019. In 2020, developing country participation in virtual meetings of some Inclusive Framework working groups also increased compared to participation in face-to-face meetings held in 2019, but to a much lesser extent. For instance, developing country participants in the Task Force on the Digital Economy went up from 34% of the total attendees in 2019 to 38% in 2020. A similar limited increase in percentage was observed for some Working Parties, e.g. WP6 and WP11, while WP1 has actually saw a drop in developing country participation in 2020. This shows that – at the level of working groups – the issue of developing country engagement goes beyond travel-related costs. See *infra*.

providing support to developing countries to attend face-to-face meetings held at critical decision points, may be beneficial.

Timely availability of translated documents and interpretation of meetings were also cited by certain countries as critical to their active engagement.⁴⁹ Additional resources to support the timely production of translated documents and availability of interpretation services would clearly benefit developing countries where English is not a commonly used language.

Additional direct support could be provided to lower capacity countries participating in the Inclusive Framework to strengthen their officials' expertise⁵⁰ (including representatives from tax administrations and policy areas), for instance through pre-meeting briefings and tailored workshops, at regional and/or national levels, facilitated by the OECD Secretariat and (or in collaboration with) relevant RTOs or other partners. Investing in technical knowledge, negotiation and diplomatic skills of developing country officials is important to ensuring effective engagement and influence on Inclusive Framework policymaking.⁵¹ Feedback from consultation events shows that participants particularly value regional events as an effective way of building expertise and confidence through engagement with peers.

Further enhancing collaboration of lower capacity countries with their peers and regional partners could enable a more effective representation of their interests and positions.⁵² This could be facilitated through dedicated meetings organised with the support of regional tax organisations and other regional bodies that have already successfully facilitated similar endeavours (e.g. ATAF, *Cercle de Réflexion et d'Échange des Dirigeants des Administrations Fiscales* (CREDAF), CIAT, the Commonwealth Association of Tax Administrators (CATA), the Study Group of Asian Tax Administration and Research (SGATAR)). Feedback from regional consultations indicated strong support across the board for more peer-to-peer, regionally organised dialogue/workshops, as a means to both build capacity and engage with policy-makers. The Cross Border Taxation Technical Committee (CBT) of ATAF is an example of how regional, peer-based groupings can help to strengthen and amplify developing countries' influence in Inclusive Framework processes. See Box 4.1, below.

⁴⁹ See polling results of question 7 at Annex C and *At the Table, Off the Menu? Assessing the Participation of Lower-Income Countries in Global Tax Negotiations*, cit., page 14.

⁵⁰ See results of polling question 7, at Annex C.

⁵¹ See *At the Table, Off the Menu? Assessing the Participation of Lower-Income Countries in Global Tax Negotiations*, cit. The paper notes that “a long-term perspective is needed to build a cohort of people with deep knowledge, experience and networks” and that “there is no substitute for investment in skilled and experienced representatives” (page 29).

⁵² *Idem*, page 23-25. The paper highlights that “if lower-income countries work together, and with other countries with common interests, they should draw considerable influence from combined economic size and diplomatic force.” It also notes that “the outstanding vehicles for collaboration in the Inclusive Framework have been the G24 and ATAF. [...] Although new to global tax standard setting, the G24 benefits from political backing, directly drawing from high-level diplomats in ministries of foreign affairs and finance. [...] ATAF, in contrast, relies less on political support and engagement and more on technical interventions. [...] ATAF's key resource is technical collaboration, which allows African States to overcome their individual capacity constraints.”

Box 4.1. ATAF Cross Border Taxation Technical Committee: A model for regional co-operation with the Inclusive Framework

In 2014, ATAF established the CBT with the objective of influencing the global standard setting process to ensure new international tax rules are fit for purpose in Africa. The CBT comprises international tax experts from ATAF member countries supported by international tax advisers in the ATAF Secretariat. Through the CBT, ATAF has made numerous written comments and interventions at meetings of the Inclusive Framework and its subsidiary bodies recommending revisions to the Pillar One and Pillar Two rules. This culminated in the ATAF Pillar One proposal⁵³ that was submitted to the Inclusive Framework in May 2021. Much of that proposal has been included in the July statement agreed by 134 Inclusive Framework members including a comprehensive scope for Pillar One, the exclusion of the extractives sector and a reduction in the nexus threshold from EUR 5 million to EUR 1 million and a lower threshold of EUR 250 000 for small economies.

International Organisations can also support developing countries in their engagement on the BEPS agenda. The PCT mandate, for example, indicates the PCT will ‘support interested developing countries to participate in the implementation of the BEPS package and input into future global standard setting on international taxation’.⁵⁴

Recommendation 9

Inclusive Framework stakeholders should put in place practical measures to enhance developing country engagement and participation such as:

- ***Making Inclusive Framework related meetings more accessible by funding travel where appropriate, making interpretation/translation services widely available and organising pre-meeting briefings and bespoke workshops;***
- ***Supporting assistance providers in the provision of training and mentorship programmes to strengthen the technical, negotiation and diplomatic skills of developing country officials; and***
- ***Promoting greater collaboration among developing countries, including at regional level together with regional tax organisations, to effectively articulate and represent common interests and positions in the Inclusive Framework.***

⁵³ See <https://www.ataftax.org/ataf-sends-revised-pillar-one-proposals-to-the-inclusive-framework>.

⁵⁴ See - <https://www.tax-platform.org/sites/pct/files/publications/104902-SECOND-REVISION-concept-note-platform-for-collaboration-on-tax.pdf>.

5 Domestic resource mobilisation and future priorities for the Inclusive Framework

In the last ten years, international tax co-operation has changed dramatically, reflecting the growing need, and appetite, for multilateral action to address the challenges posed by rapid globalisation and digitalisation. The establishment and growth of the Global Forum and Inclusive Framework are the most obvious illustrations of the change in approach on international tax co-operation. They demonstrate that governments have recognised that co-ordination and co-operation are vital, and can help preserve, rather than hinder, tax sovereignty.

The range of transnational taxation challenges governments are facing continues to grow, driven by the policies needed to confront accelerating climate change and the impact of the pandemic.

While base erosion and profit shifting challenges are the most obvious issues requiring multilateral tax co-operation, there is a range of challenges that have tax dimensions that lie beyond any one country's borders and require a co-ordinated international response. As a result of the pandemic and ensuing economic crisis, the fiscal situation in developing countries has deteriorated and many are reconsidering their tax policy frameworks, both to support recovery; and in the longer term, to restore sustainable public finances. This need to focus on DRM is particularly acute in countries where tax revenues were already low as a share of GDP prior to the crisis.

The mandate of the Inclusive Framework is dedicated to the BEPS agenda, and the current Pillar One/ Pillar Two agenda will be the priority for the Inclusive Framework in the short to medium term.

Developing countries are, however, raising topics where they would benefit from further multilateral dialogue in the future. The Inclusive Framework format may have value as a forum or a model for addressing other taxation issues. Discussions with developing countries, including through the consultation process for this report, highlighted a range of other pressing DRM issues facing developing countries, summarised in the rest of this chapter.

5.1. Tackling climate change through tax policy action

Developing countries are increasingly vocal that greening the tax system and addressing the challenges posed by climate change are a priority for future global tax policy discussions, as countries seek to achieve the ambitious goals set out in the Paris Agreement and to reduce the pace of climate change. There is increasing agreement that fiscal instruments will be important tools in efforts to combat climate change, illustrated for example by the establishment of the Coalition of Finance Ministers for Climate Action⁵⁵ whose principles include working towards measures that result in effective carbon

⁵⁵ The Coalition is a global Finance Minister-led initiative to accelerate climate action comprising members from 62 countries from all regions and levels of economic development.

pricing and green budgeting. The need to establish standards and share best practice on environmental taxation was also raised in the consultations for this report.

Moreover, developing countries that are reliant on fossil fuels will need to urgently design strategic policies to navigate the energy transition and to intensify investments into economic sectors and/or sovereign wealth funds that will deliver sustainable economic growth and government revenue; eliminate wasteful fossil fuel subsidies and tackle the issue of stranded extractive assets.⁵⁶

Increasing environmentally related taxes or reducing fossil fuel subsidies needs to be accompanied by policies to ensure energy affordability. For example, the cost of energy and energy-intensive products rises when taxes on energy use are aligned with environment and climate impacts. Transparent measures to avoid undue adverse effects on living standards can be funded by assigning a portion of the revenue raised through tax increases to this end. The choice of transfer mechanism depends on the social expenditure system, in exceptional circumstances, where institutions and systems are weak, it may be necessary to keep prices of some fuels low to avoid rising energy poverty or substitution towards informal market fuels.

Carbon pricing will play a key role in translating the high-level policy objectives set out in both the Paris Agreement and the Sustainable Development Goals (SDGs) into concrete action. Explicit carbon pricing, through carbon taxes or emissions trading systems will attract attention from policymakers seeking to build back public finances after the COVID-19 crisis. Recent OECD research, based on a diverse a group of 15 developing countries, suggests that explicitly pricing carbon could make a sizable contribution to mobilising domestic resources, contributing an additional one percent of GDP to government revenues, on average, but with significant differences across countries.⁵⁷ Countries' policy mix for reducing greenhouse gases will, however, depend on local circumstances, and may include regulatory policies resulting in implicit carbon prices. In addition, the use of explicit carbon prices should be considered in tandem with the reform of fuel excise taxes and fossil fuel subsidies, both of which affect implicit carbon prices.

Tax policy can also play a broader role in the pursuit of climate goals by aligning the overall tax system with climate objectives. Such alignment can include addressing the emissions of other greenhouse gases, and requires removing inadvertent hurdles to emissions abatement or adaptation efforts. This can be achieved by, for example, reconsidering preferential tax treatment of carbon-intensive technologies or consumption patterns, and through implementing incentives for low-carbon choices where market failures would otherwise tend to disadvantage them.

As the use and scope of environmentally related taxes expand, the need for standards to address the international dimensions, and the benefits from dialogue and co-operation on domestic policy, will also expand. The ongoing discussions on possible carbon border adjustments, seek to address the potential cross-border spillovers of strong differences in the pricing of carbon emissions across countries; however carbon border adjustments in themselves result in spillovers and can affect trade relations. International co-operation will be needed to manage these spillovers.

⁵⁶ Inter-American Development Bank, Extractive Industries Sector Framework Document, Fiscal Management Division, (2021) <https://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=EZSHARE-1695735402-49>.

⁵⁷ Taxing Energy Use for Sustainable Development (OECD, 2021) - <https://www.oecd.org/tax/tax-policy/taxing-energy-use-for-sustainable-development.htm>.

5.2. Safeguarding VAT/GST revenues in the face of growing digitalisation and e-commerce

There is high demand from developing countries for further action on VAT/GST, as VAT/GST revenues need to be safeguarded in an increasingly digitalised and global economy. The consultation process showed strong support for an increased focus on VAT/GST, it was the second most popular option, behind tax administration issues⁵⁸ (see section 5.5). VAT/GST are typically the largest source of tax revenue in developing countries, accounting for an average of 30% of total tax revenues in Africa, 28% in Latin America and the Caribbean, and 23% in Asian and Pacific economies. They also represent more than one-third of total revenues in 23 developing countries, and have contributed strongly to the growth in developing country DRM over the last decade. Given the scale of the revenues at stake, ensuring the sustainability of these revenues is a key priority for many developing countries.

The rapid growth of e-commerce, accelerated by the COVID-19 pandemic, poses significant challenges for domestic VAT/GST systems. Firstly, volumes of online sales of services and digital products (such as accommodation services, music and television streaming, and ride-hailing, as well as in-app purchases) to private customers are increasing. In the absence of effective VAT/GST provisions on supplies of services and digital products under traditional rules, these sales often attract no or very little VAT/GST. Secondly, the volume of imports of low-value goods from online sales is also growing strongly. Traditional customs procedures often fail to collect VAT/GST (and indeed other indirect taxes) effectively on these purchases, allowing them to enter jurisdictions without VAT/GST being paid. As the volume of these imports increases, so do VAT/GST revenue losses, and pressure is placed on domestic “brick-and-mortar” businesses, which are unable to compete with the rising volumes of effectively VAT/GST-free online retail sales.

The implementation of multilateral standards and enhanced international co-operation will be critical in protecting VAT/GST revenues from increasing digitalisation and e-commerce. Globally, governments have recognised that international co-operation is important in effectively addressing the VAT/GST challenges of the digital economy, with the goals of raising compliance levels at the lowest possible cost, minimising risks of trade distortion, and supporting effective international co-operation in tax administration and enforcement. The *OECD International VAT/GST Guidelines* and subsequent detailed technical and practical guidance reflect a broad consensus on effective and efficient VAT/GST solutions to increasing e-commerce activity. To date, these standards and recommendations have been implemented in over 70 jurisdictions, with strongly positive results in terms of increasing VAT/GST revenues and compliance levels, while reducing competitive distortions between domestic and online vendors. To further the implementation of these standards, the OECD and WBG, in partnership with regional organisations, are developing regional toolkits that will provide detailed guidance on the design, implementation, and operation of a comprehensive VAT/GST strategy to address the challenges of digital trade.

Continued development and implementation of these standards and regional toolkits via ongoing international co-operation will be critical to equip VAT/GST systems to meet the challenge of rapid digitalisation and to allow developing countries to implement these standards effectively. The Inclusive Framework offers a potential home for furthering policy discussions on securing VAT/GST revenues from e-commerce and on the implementation of these standards. Many developing countries are already engaged through the Global Forum on VAT, and as noted in section 4.2, there could be potential benefits to integrating WP9 into the Inclusive Framework.

⁵⁸ See results of polling question 8 in Annex C.

5.3. Ensuring effective taxation of personal income and property through improved tax policy design and AEOI

Many developing countries are seeking support in the design and implementation of better personal income and property taxation, driven in part by growing inequalities, exacerbated by the COVID-19 pandemic, combined with deteriorating fiscal positions. The crisis has significantly affected the fiscal positions of many developing countries due to its impact on economies and government responses in the form of support measures for households and businesses. Government expenditures have increased while tax revenues have decreased, in some cases dramatically worsening countries' debt burdens and increasing the need for DRM once the crisis has passed. At the same time, preliminary evidence suggests that the pandemic has reinforced existing inequalities in many countries. Low-income workers, particularly in sectors affected by lockdown or social distancing measures, have been strongly affected, whereas higher income workers have been more likely to telework and have in general, seen an increase in their savings. Wealthy households have also benefitted from increases in asset prices since the start of the pandemic. Governments in many developing countries are therefore faced with the twin challenges of raising much needed domestic revenues while addressing these inequalities, reducing unemployment, and providing social protection. This is resulting in greater consideration of personal income (including personal capital income) and property taxation by some developing countries, accompanied by growing requests for guidance and assistance in design and implementation.

Broadening the base of personal income taxes and strengthening the overall progressivity of these taxes will be an important part of the tax policy debate in developing countries over the next few years. While VAT/GST is high as a share of total tax revenues in developing countries, personal income taxes represent a considerably lower source of revenues due to narrow tax bases, extensive tax preferences, and low progressivity. A key part of strengthening personal income taxation will be increasing the effective taxation of capital income and of top earners. Similarly, increasing the taxation of property, in particular via well-designed taxes on immovable property, can play a key role. Additional tools such as net wealth taxes, inheritance and capital gains taxes that are attracting increasing attention could also be explored. A number of countries have begun to strengthen personal income and property taxes in light of the COVID-19 pandemic, but they remain underdeveloped in many countries.

The potential for a more effective taxation of capital incomes in developing countries has been enhanced by the implementation of AEOI. AEOI has reduced the opportunities for taxpayers to avoid taxes on capital income by concealing assets abroad (O'Reilly, Parra Ramirez and Stemmer, 2019^[2]). As more developing countries successfully implement the standard on AEOI, providing access to valuable new sources of information, demand for support in using the information received effectively will increase. TIWB is already responding to this demand through the establishment of a pilot programme on effective use of AEOI data, complementing assistance programmes developed by the Global Forum.

Increased co-ordination at the international level will be important to ensure that capital income is taxed as effectively as possible, and to resolve cross-border issues that arise in the exchange of information between jurisdictions. The well-established architecture of the Inclusive Framework could potentially allow the facilitation of peer learning and discussions on the effective taxation of personal income and wealth, provide a forum to discuss and implement best practices, and equip administrations with the necessary legal, administrative and IT tools to benefit from AEOI.

5.4. Improving tax policy design to support the Sustainable Development Goals

As the largest and most stable source of domestic revenues in almost all developing countries, tax has an important role in financing the SDGs. Improving tax policy to align to SDG-financing strategies is an increasing priority for many countries. Improving the financing of vital public goods is

essential for the realisation of the SDGs, and as the AAAA underlines, tax revenues are the only viable source for the vast majority of that financing. Many developing countries are developing medium or longer-term strategies for financing the SDGs,⁵⁹ with an emphasis on taxation. Designing tax policies to realise SDG-financing goals is challenging, however, and requires careful consideration of a wide range of factors including rates, base and behavioural changes, as well as economic and distributional impacts; many countries are therefore seeking support as they develop their SDG-aligned tax policies.

COVID-19 has thrown into sharp relief the need for tax systems to support the financing of robust and responsive health systems, particularly in times of crisis. Health financing presents a range of challenges, including the design and use of social security contributions and the role of taxation to encourage healthier behaviour. In many developing countries, public expenditure on health is comparatively low as a share of GDP, necessitating a high share of private expenditures on health-care, which can be both regressive and inequitable. Restricted public financing also limits the ability of the health system to develop capacity to respond to increasing healthcare needs in the community. Improving health financing through the tax system requires careful consideration of the design and use of social security contributions, through broadening the contribution base, ensuring that rates are adequate, and promoting formal labour force participation. Further, improving the design of taxes with strong links to the health sector can also contribute, such as those on products harmful to health. For instance, taxes on tobacco and alcohol consumption, as well as environmentally related taxes that help reduce pollution, can play an important role in boosting public revenues, as well as reducing harmful product consumption; and other health-related taxes, such as taxes on sugar, are increasingly being considered.

In designing tax systems to finance the SDGs, peer learning and multilateral solutions will be critical, building on successes and lessons learned in other jurisdictions and the expertise of international and regional organisations. While there are a number of institutions providing support in the development of SDG-aligned tax systems, there is currently no global forum to facilitate peer-exchange and dialogue.

5.5. Supporting tax administration development

Tax administration issues are consistently raised as a priority for further international dialogue and support. Throughout the consultation process, tax administration issues were consistently identified as the highest priority area for further action, demonstrating that there is significant demand from developing countries for further international dialogue and guidance on tax administration development.⁶⁰

The needs for tax administration support go beyond implementing the BEPS agenda. As identified in Chapter 3, there are a number of areas where support and guidance is needed for the administration of international tax standards, including in meeting confidentiality standards, and making best use of the data received through CbC report exchanges or AEOI. In addition, the implementation of the two-pillar solution will create a new series of demands on tax administrations. In many cases, especially where digitalisation and the use of big data are involved, tax administration reforms to implement international standards will be most effective when undertaken as part of broader tax administration reforms/digitalisation, enabling best practices, economies of scale, and senior management commitment to be spread across the whole administration. The support offered on tax administration challenges of international standards should therefore seek to integrate with broader guidance and support.

Building efficient and effective tax administrations, including through making best use of appropriate digital technologies is a key challenge for developing countries. All tax policies rely on

⁵⁹ Including through Integrated National Financing Frameworks and Medium Term Revenue Strategies.

⁶⁰ See responses to polling question 8 in Annex C.

the availability of an effective administration for implementation. While there are many dimensions to building tax administrations, a key issue currently is digitalisation and automation. The potential for digital technology to improve the efficiency of tax administration, while also providing the ease of compliance increasingly demanded by taxpayers, is clear, but the implementation of digitalisation processes can be challenging.

There is untapped potential to share experiences and expertise in digital transformation of tax administration. The most advanced tax administrations (the 53 members of the FTA) have been rapidly digitising their legacy paper-based and semi-manual processes. This shift to e-administration has enabled both the development of increasingly taxpayer-centric systems to provide better customer service, and more sophisticated data analysis within the tax administration to analyse risk and focus enforcement efforts. To date, this rich experience, both successes and pitfalls, has not been available to lower capacity countries. Accessing this experience would help the transition to e-administration, especially when combined with support from other partners to supply the further technical and financial resources needed (WBG and IMF, for example). With the commitment of additional resources, a range of tools could be made available to developing countries to support the various stages of digital transformation, combined with knowledge sharing and peer-to-peer support on e-administration solutions.

In conclusion, there is clear demand for a multilateral tax agenda that goes beyond BEPS. Many developing countries are keen to see an inclusive, global, multilateral process to help address a range of DRM challenges. These issues go beyond the mandate of the Inclusive Framework. Discussions will be needed with all Inclusive Framework members on the scope for further multilateral action on taxation, and the role, if any, for the Inclusive Framework, alongside other institutions, in delivering it.

Recommendation 10

The Inclusive Framework should consider developing countries' priorities for multilateral dialogue to address issues beyond BEPS, such as environmental taxation, indirect taxation on e-commerce, and tax administration issues, which could benefit from the multilateral approach facilitated by the Inclusive Framework.

Annex A. Recommendations

Overarching recommendation:

In order to ensure the Inclusive Framework coalition remains strong and meets the needs of all of its members, further assessments on the progress of developing countries should be conducted on a regular basis. This could take the form of an annual ministerial dialogue with developing countries and interested G20 members of the Inclusive Framework on issues such as:

- Their progress in implementing measures to combat BEPS, including on the two-pillar agreement and areas that have been particularly challenging for developing countries such as Country-by-Country reporting;
- Their views on the work and priorities of the Inclusive Framework and its associated standards. This could include wider strategic issues such as the use of Inclusive Framework standards (e.g. listing) and the broader macro-economic impact of the two-pillar solution, including on Small Island Developing States.

Recommendations on international norms and related guidance

1. As a priority, all stakeholders, including Inclusive Framework members, should reflect on how Country-by-Country reporting could be made more accessible to developing countries while, also protecting confidentiality of sensitive information.
2. Assistance providers should develop additional guidance and other tools, adapted to the needs and priorities of developing countries, for dealing with base eroding payments such as excessive interest and royalties, to provide additional pathways to strengthening their tax systems.

Recommendations to support effective and efficient taxation of natural resources

3. In light of the importance of natural resources to a significant number of developing countries' domestic resource mobilisation efforts, the OECD Secretariat, together with relevant partners including the Intergovernmental Forum on Mining, Minerals and Sustainable Development (IGF, should develop practical tools and guidance on mineral pricing, commodities marketing hubs and the taxation of offshore indirect transfers of interests in natural resources industries. These areas have been identified as posing significant BEPS risks for many resource-rich developing countries.

Recommendations on capacity building and technical assistance

4. Development partners, including G20 members, should, as a priority, support a major Inclusive Framework initiative, to be launched in early 2022, to provide capacity building support and technical assistance to ensure developing countries can adopt and implement the Pillar One and Pillar Two measures in an appropriate and timely fashion.

5. Development partners and assistance providers, including G20 members, should deliver expertise and financing to:
 - Intensify and continue the current tailor-made technical assistance and capacity building initiatives which have been shown to provide significant benefits over the medium to long term and expand the work to support capacity building on tax treaty related matters including the prevention and resolution of tax disputes through effective use of the Mutual Agreement Procedure (MAP), areas where the consultation process exposed needs;
 - Further strengthen Tax Inspectors Without Borders (TIWB) and similar peer-based tax compliance initiatives, with a focus on strategic industries and issues, including natural resources, the financial services and telecommunications sectors; and issues such as improving tax administration;
 - Expand the “Deep Dive” capacity building programmes, conducted by the OECD Secretariat with the Intergovernmental Forum on Mining, Minerals and Sustainable Development (IGF) and other partners, to support developing countries capitalise on their mineral resources.

6. All Inclusive Framework stakeholders should encourage and support greater political awareness and buy-in on the need for legislative and administrative reform, including by engaging with parliaments and other policy makers at the highest levels.

Recommendations on governance, participation and practicalities of the Inclusive Framework

The Inclusive Framework stakeholders should:

7. As a priority, reflect on governance arrangements within the Inclusive Framework to ensure a broad and systematic inclusion of developing countries. This could include consideration of representation in the leadership of the Inclusive Framework and its subsidiary bodies, and updating of the mandate of the Advisory Group for Co-operation with Partner Economies.

8. In light of the growing importance of VAT/GST and the cross-overs between the work of Working Party No. 9 on Consumption Taxes (WP9) and the Inclusive Framework, consider, as a priority, integrating WP9 into the scope of the Inclusive Framework.

9. Put in place practical measures to enhance developing country engagement and participation such as:
 - Making Inclusive Framework related meetings more accessible by funding travel where appropriate, making interpretation/translation services widely available and organising pre-meeting briefings and bespoke workshops;
 - Supporting assistance providers in the provision of training and mentorship programmes to strengthen the technical, negotiation and diplomatic skills of developing country officials; and
 - Promoting greater collaboration among developing countries, including at regional level together with regional tax organisations, to effectively articulate and represent common interests and positions in the Inclusive Framework.

Recommendations on the future of the Inclusive Framework

10. The Inclusive Framework should consider developing countries' priorities for multilateral dialogue to address issues beyond BEPS, such as environmental taxation, indirect taxation on e-commerce, and tax administration issues, which could benefit from the multilateral approach facilitated by the Inclusive Framework.

Annex B. List of Inclusive Framework members, Steering Group members and Observers

Table B.1. List of Inclusive Framework members⁶¹

Albania	Cayman Islands	Greece	Malaysia	Saint Lucia
Andorra	Chile	Greenland	Maldives	Saint Vincent and the Grenadines
Angola	China (People's Republic of)	Grenada	Malta	Samoa
Anguilla	Colombia	Guernsey	Mauritius	San Marino
Antigua and Barbuda	Congo	Haiti	Mexico	Saudi Arabia
Argentina	Cook Islands	Honduras	Monaco	Senegal
Armenia	Costa Rica	Hong Kong, China	Mongolia	Serbia
Aruba	Côte d'Ivoire	Hungary	Montenegro	Seychelles
Australia	Croatia	Iceland	Montserrat	Sierra Leone
Austria	Curaçao	India	Morocco	Singapore
The Bahamas	Czech Republic	Indonesia	Namibia	Slovak Republic
Bahrain	Democratic Republic of the Congo	Ireland	Netherlands	Slovenia
Barbados	Denmark	Isle of Man	New Zealand	South Africa
Belarus	Djibouti	Israel	Nigeria	Sri Lanka
Belgium	Dominica	Italy	North Macedonia	Spain
Belize	Dominican Republic	Jamaica	Norway	Sweden
Benin	Egypt	Japan	Oman	Switzerland
Bermuda	Estonia	Jersey	Pakistan	Thailand
Bosnia and Herzegovina	Eswatini	Jordan	Panama	Thailand
Botswana	Faroe Islands	Kazakhstan	Papua New Guinea	Trinidad and Tobago
Brazil	Finland	Kenya	Paraguay	Togo
British Virgin Islands	France	Korea	Peru	Tunisia
Brunei Darussalam	Gabon	Latvia	Poland	Turks and Caicos Islands
Bulgaria	Germany	Liberia	Portugal	Turkey
Burkina Faso	Gibraltar	Liechtenstein	Qatar	Ukraine
Cabo Verde		Lithuania	Romania	United Arab Emirates
Cameroon		Luxembourg	Russian Federation	United Kingdom
Canada		Macau, China	Saint Kitts and Nevis	United States
				Uruguay
				Viet Nam
				Zambia

⁶¹ As at 1 September 2021.

Table B.2. Composition of the Steering Group of the OECD/G20 Inclusive Framework on BEPS⁶²

Chair	
Martin KREIENBAUM	Germany
Deputy chairs	
Jianfan WANG	China
Mathew Olusanya GBONJUBOLA	Nigeria
BEPS Associates	
Carlos Eduardo PROTO	Argentina
Stephen COAKLEY WELLS	The Bahamas
Flavio Antonio ARAUJO	Brazil
Rasmi DAS	India
Telmuun BYAMBARAGCHAA	Mongolia
Mohannad BASODAN	Saudi Arabia
Amadou BADIANE	Senegal
Huey Min CHIA-TERN	Singapore
Yanga MPUA	South Africa
Joseph NONDE	Zambia
CFA Bureau members	
Maryanne MRAKOVIC	Australia
Gunter MAYR	Austria
Claudia VARGAS	Colombia
Gael PERRAUD	France
Fabrizia LAPECORELLA	Italy
Isaya MUTO	Japan
Kwang-Hyo KO	Korea
Filip MAJDOWSKI	Poland
Linda HAGGREN	Sweden
Mike WILLIAMS	United Kingdom
Itai GRINBERG	United States

⁶² As at 29 August 2021.

Table B.3. List of observer organisations to the Inclusive Framework (as at August 2021)

1. African Development Bank (AfDB)
2. African Tax Administration Forum (ATAF)
3. African Union (AU)
4. Asian Development Bank (ADB)
5. Commonwealth Association of Tax Administrators (CATA)
6. *Centro Interamericano de Administraciones Tributarias* (CIAT)
7. *Cercle de Réflexion et d'Échange des Dirigeants des Administrations Fiscales* (CREDAF)
8. European Bank for Reconstruction and Development (EBRD)
9. Inter-American Development Bank (IADB)
10. International Monetary Fund (IMF)
11. Intra-European Organisation of Tax Administrations (IOTA)
12. Pacific Islands Tax Administrators Association (PITAA)
13. United Nations (UN)
14. World Bank Group (WBG)
15. World Customs Organization (WCO)

Annex C. Regional consultation events May-July 2021

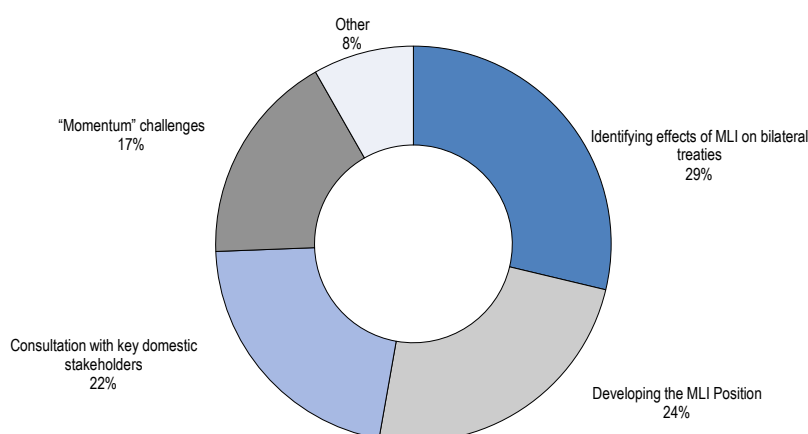
Between May and July 2021, the OECD Secretariat, together with regional partners, conducted a series of six regional consultation events to gather input from developing countries on their experiences with the Inclusive Framework, as well as their DRM priorities and perspectives. Conducted in a virtual format, the events were held in three languages (English, French and Spanish) and brought together a total of some 675 participants from 155 jurisdictions. The events included interactive sessions with polling questions (the aggregated results of which follow), together with panel discussions featuring international tax policy and tax administration experts from developing countries. Feedback from the floor was also encouraged.

Discussions were also held with the PCT and development partners to share the outline and preliminary thinking for the report.

Polling questions

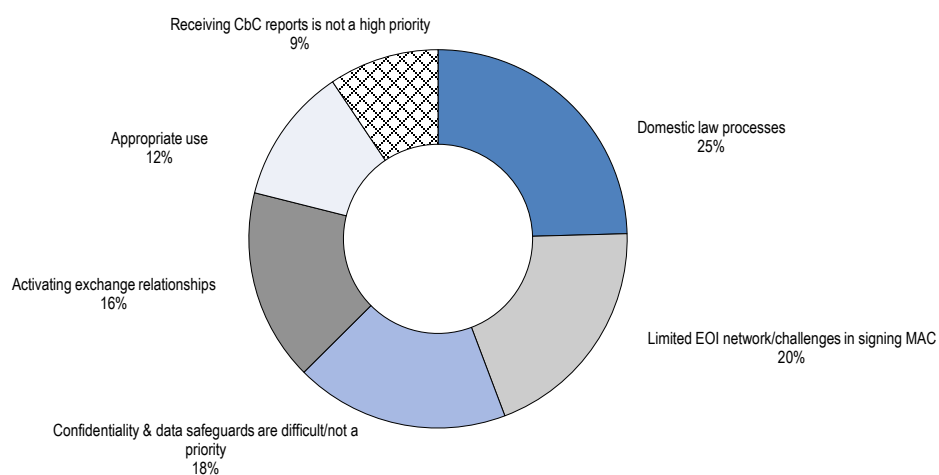
The following figures set out the aggregated results of the polling questions asked at the six regional meetings.

Figure C.1. Question 1: What are the main challenges in relation to the MLI for developing countries? (Select all that apply)



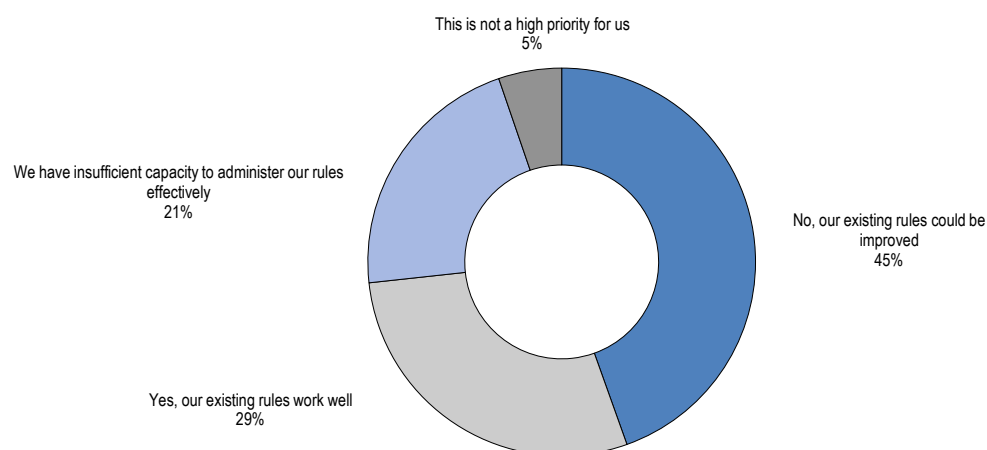
Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Figure C.2. Question 2: What are the main barriers to accessing CbC reports for developing countries? (Select all that apply)



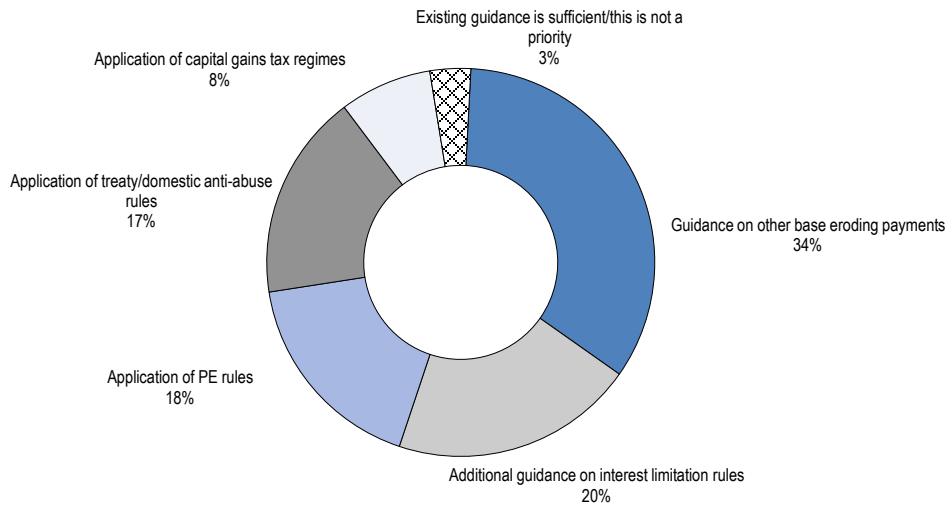
Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Figure C.3. Question 3: Have you found your current measures on limiting excess interest deductions to be effective? (Select one only)



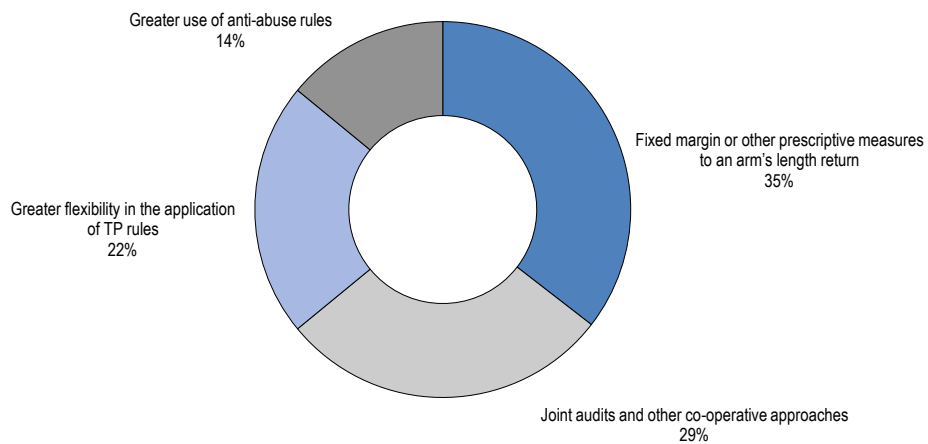
Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Figure C.4. Question 4: Where is additional guidance needed to help you deal with base eroding payments? (Select up to 2)



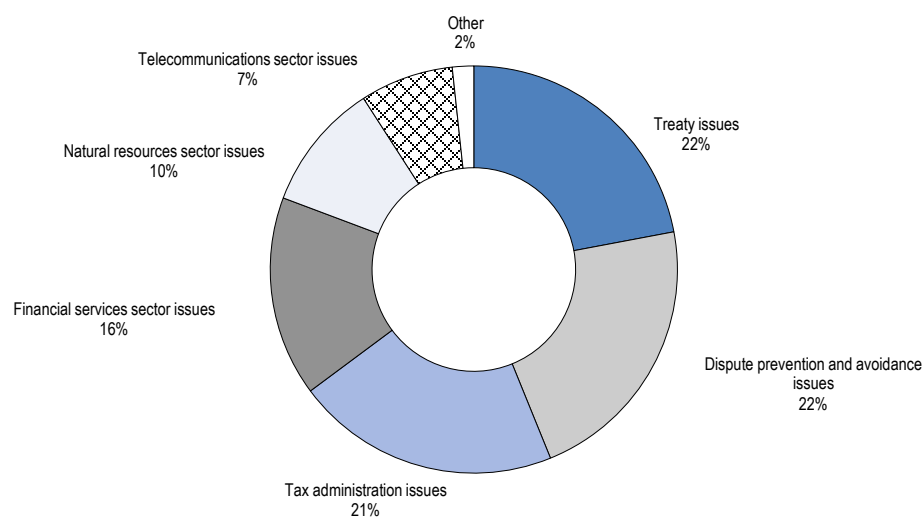
Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Figure C.5. Question 5: How could the complexity of the transfer pricing rules be addressed? (Select up to 2)



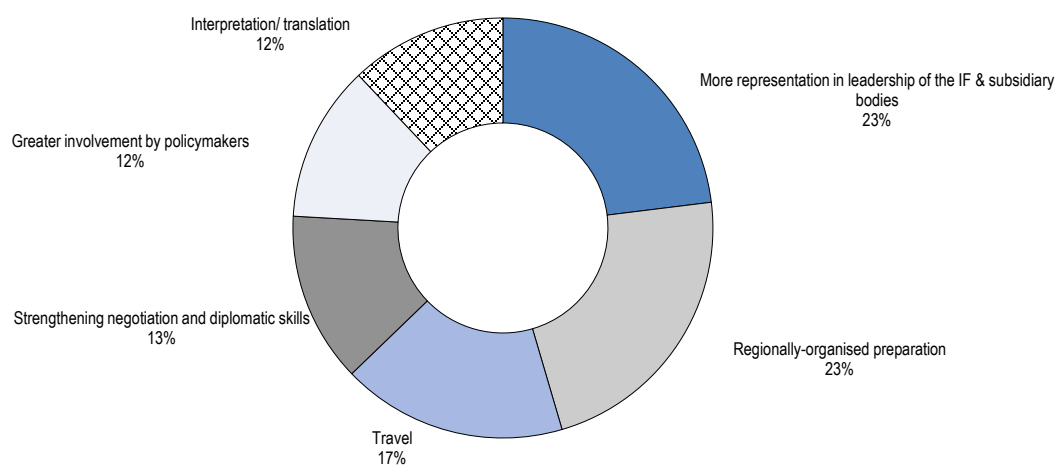
Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Figure C.6. Question 6: What areas do you think should be a priority for practical support programmes? (Select up to 2)



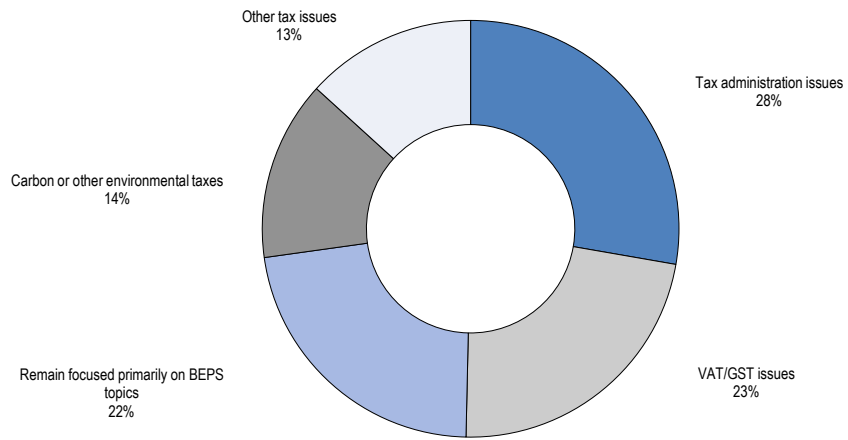
Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Figure C.7. Question 7: What would be the most efficient actions to increase developing countries' effective participation in the Inclusive Framework? (Select up to 2)



Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Figure C.8. Question 8: I think the Inclusive Framework could discuss: (Select all that apply)



Source: Answers gathered during the regional consultations that took place between 31 May and 9 July 2021.

Attachment D. Tax and Fiscal Policy after the COVID-19 Crisis

OECD Report for the G20 Finance Ministers and Central Bank Governors

October 2021, Italy

Executive summary

The report has been prepared for G20 Finance Ministers and Central Bank Governors (FMCBG) at the request of the Italian G20 Presidency. It builds upon the earlier OECD reports on [Tax and Fiscal Policy Responses to the COVID-19 Crisis](#), which were presented to the G20 FMCBGs in April 2020 and April 2021, respectively.

The COVID-19 pandemic resulted in a global health crisis and precipitated a sharp decline in economic activity that is without precedent in recent history. In just a few months, the COVID-19 pandemic turned from a health crisis into a global economic crisis causing a much larger contraction in global GDP than the global financial crisis in 2008.

Swift and sustained policy actions have supported the health and economic recovery with global GDP now returning to pre-pandemic levels. The ongoing deployment of effective vaccines, continued policy support for businesses and households and the gradual resumption of many economic activities has seen global economic growth pick up this year.

However, the recovery remains uneven, with strikingly different outcomes across countries, sectors and demographic groups. Output and employment gaps remain in many countries, particularly in emerging market and developing economies where vaccination rates are low. This means that countries face vastly different policy challenges in recovery and beyond.

The COVID-19 crisis has caused a significant deterioration in public finances, which calls for a rethink of tax and spending policies once the recovery is well underway. Containment measures, increased government spending and lower tax revenues have driven an increase in budget deficits and government debt, which as a percentage of GDP has reached its highest levels over the past several decades. While current interest payments on sovereign debt are manageable for most countries, due to low bond yields and accommodative monetary policy, maintaining high debt increases vulnerability to interest rate increases and growth slowdowns, and raises debt rollover risks.

Today, most G20 economies are in the recovery phase where it will be essential to create the conditions for robust, resilient and inclusive economic growth, which will in turn support government finances in the future. The premature withdrawal of fiscal support or increased taxes could risk undermining the recovery, as happened in many countries after the global financial crisis. However, once the recovery is firmly in place, the post-crisis environment will provide an opportunity for countries to undertake a fundamental reassessment of their tax and spending policies along with their overall fiscal frameworks.

A return to “business as usual” will not suffice as, in addition to the impacts of the pandemic on public finances, countries are facing many long-term structural challenges. Even before the crisis, countries were facing many long-term structural trends, such as climate change, population ageing, the acceleration of digitalisation and automation, the slowdown in economic growth, as well as rising inequalities. In fact, the COVID-19 crisis amplified and exposed a number of pre-existing structural weaknesses, such as rising inequalities, inadequate social safety nets, and unequal access to health care and to digital infrastructure. Addressing the challenges and taking advantage of the opportunities

presented by structural trends will require countries to implement a mix of tax and spending policies, as part of well-designed policy packages. Fiscal frameworks may also need to be adapted given increased financing needs and higher average debt levels.

The report provides a first look at how tax policies can support inclusive and sustainable growth beyond the COVID-19 crisis. While this report initiates a discussion on how tax policy can support inclusive and sustainable economic growth beyond the pandemic, future work will be needed to elaborate on these themes and extend this work to incorporate a more comprehensive view of the interactions between tax and spending policies, and overarching fiscal frameworks.

In adapting their tax policies to address the structural challenges they face, countries should put growth, equity and sustainability on an equal footing. Over the last decade, tax policy reform discussions have moved away from a focus on the link between taxation and economic growth towards tax reform that takes into account both equity and economic growth objectives. Increasingly, tax policy reform recommendations for inclusive growth have recognised that equity and growth can go hand in hand, and where they do not, the impact of trade-offs needs to be carefully managed. In addition, it will be increasingly important for countries to also take into account the sustainability of the tax system, both from a fiscal and environmental perspective. While improving the design of individual taxes is important, it is not sufficient on its own, as a “tax systems” approach is needed to develop a coherent tax system that promotes inclusive and sustainable growth.

Tax policies that stimulate economic growth will remain central in allowing countries to tackle the challenges confronting them beyond the COVID-19 crisis. The changing economic landscape (e.g. a marked productivity slowdown, increased digitalisation, the growing relevance of intangible assets, and increased market concentration in some countries), creates challenges but also opportunities for improving tax design to support inclusive and sustainable growth. Business tax design should take into account the heterogeneous response of firms to taxation and, in particular, to tax instruments going beyond the statutory rate such as capital allowances. Innovation and productivity diffusion are crucial and the tax system can stimulate investment in research and development, and related activities through well-designed tax policies, especially those targeting young, small and low-productivity firms. Digitalisation, as well as the continuing challenges of tax avoidance and evasion, require increased international tax co-operation, including through the implementation of the two-pillar solution to address the tax challenges of the digitalisation of the economy. Moreover, given evidence on the relatively modest growth impacts, increasing the taxes on capital income at the personal level could be reconsidered. Finally, countries should continue to build upon the lessons learned from country experiences of implementing improved standards for the effective collection of VAT on the online sales of goods, services and digital products.

Tax policy has an important role to play in enhancing equity through policies to address the distribution of income and wealth. With rising public revenue needs and increasing inequalities since the start of the pandemic, governments have started turning to new or under-utilised sources of tax revenue that could be compatible with inequality reduction objectives. In this context, taxes on personal capital income and property will likely need to play a bigger role in the future. More specifically, there has been an increasing focus on top income and wealth taxation. Reforms in this area will require carefully measuring the effective tax burden on households at the top of the income and the wealth distribution, and examining the drivers of lower effective tax rates on the wealthiest households. In particular, a better understanding of existing tax arbitrage and avoidance opportunities, including those with a cross-border dimension, will be key to identifying reform options that could help ensure that the wealthiest households pay their fair share of tax. In the longer run, the priority will be to ensure that tax systems are adapted to future challenges and can continue to deliver on their equity objectives. Indeed, structural trends that are shaping the future, including automation and digitalisation, could make it more difficult for tax systems to achieve their equity objectives if reforms are not undertaken. Automation may have a positive effect on productivity but could also lead to further increases in inequality and have long-term implications for revenues from

labour taxes. Digitalisation will also pose significant challenges to the functioning of personal tax systems by facilitating taxpayer mobility as well as the rise of new forms of work and types of assets.

Tax policy should support sustainability. Tax systems should be aligned with environmentally sustainable outcomes, whether it be in the context of environmentally related taxes or other provisions more generally. In relation to climate change, most greenhouse gas emissions are priced too low or not priced at all. Moreover, fossil-fuel subsidies persist, further incentivising emission-intensive consumption, production and investment. This increases the risk of stranded assets and hence increasing the costs of the future transition. As countries seek deeper emission cuts, the need to avoid negative spillovers on trade, development and growth agendas increases. For example, more cross-border co-operation on climate policies, including but not limited to carbon pricing, would help mitigate leakage, allow emissions reductions at a lower cost and improve access to and development of low-emission technologies. Such co-operation has the potential to boost economic growth and make the transition less costly.

The options for public finances will depend heavily on country-specific circumstances. For some countries, especially those with low-incomes, increased domestic resource mobilisation will be needed to fund additional spending, whereas countries with already high levels of taxation and spending may need to reprioritise expenditure. The optimal combination of fiscal instruments will depend on a wide range of country-specific factors, including current levels and structures of taxation and spending, the country's institutional setting and the preferences and perceptions of its citizens.

The need to focus on domestic resource mobilisation is particularly acute in developing countries where tax revenues as a share of GDP were already low prior to the COVID-19 crisis. Using the tax system as a lever to finance their development and the attainment of the Sustainable Development Goals is a priority for many developing countries. In addition to the aforementioned reforms, developing countries could also improve the design of their presumptive and simplified tax regimes in order to induce workers and businesses to operate within the formal economy, broaden tax bases by abolishing ineffective tax incentives for investment and inequitable tax expenditures, and better use health taxes to increase funding of the healthcare sector.

The political economy aspects of tax reform are crucial. Significant fiscal changes will not only require good policy design, but effective policy communication and consensus-building if political acceptance is to be secured. The externalities of public finance choices make international dialogue and co-operation imperative to counter structural challenges. The attitudes of citizens towards taxes will also impact how tax systems can be designed. Providing credible and easy-to-understand information on how tax systems work will be essential for democratic debate and informed decision making of citizens.

Table of contents

Executive summary	115
1 Introduction	119
2 Economic and societal trends shaping public finances	121
2.1. Economic growth has slowed	121
2.2. Digitalisation is accelerating	122
2.3. Inequalities are rising	123
2.4. Populations are ageing	124
2.5. Environmental sustainability and climate change call for urgent change	125
3 Tax reform for inclusive and sustainable economic growth	127
3.1. Growth-friendly tax policies	130
3.2. Tax policies for equitable societies	136
3.3. Taxation for a sustainable environment	138
3.4. Tax policy challenges faced by developing countries	140
4 Further observations	143
References	146

1 Introduction

The COVID-19 pandemic resulted in a global health crisis and precipitated a sharp decline in economic activity that is without precedent in recent history. In just a few months, the COVID-19 pandemic turned from a health crisis into a global economic crisis causing a much larger contraction in global GDP than the global financial crisis in 2008, reaching nearly 10% in the first half of 2020 and an estimated 3.4% overall in 2020.

Swift and sustained policy actions have supported the health and economic recovery with global GDP now returning to pre-pandemic levels. The policy response to the COVID-19 crisis has involved considerable fiscal support for businesses and households, which has prevented even greater declines in employment, income and output. The ongoing deployment of effective vaccines, continued policy support and the gradual resumption of many economic activities has seen global economic growth pick up this year.

As the global economy recovers, policymakers are turning their attention to the broader question of how to manage their public finances through the recovery and beyond the health crisis. For the recovery to be inclusive and sustainable, countries will need to consider the sectors and demographics most affected by the crisis and develop tailored strategies that put these groups at the centre of the recovery effort.

The COVID-19 crisis has led to a major deterioration in public finances. Containment measures, increased government spending and lower tax revenues have driven an increase in budget deficits and government debt, which as a percentage of GDP has reached its highest levels over the past several decades. While current low bond yields in many countries, supported by accommodative monetary policy, help to keep interest payments on sovereign debt at manageable levels, maintaining high debt increases vulnerability to interest rate increases and growth slowdowns, and raises debt rollover risks. Restoring public finances will likely continue to be a priority for countries for many years into the future.

In addition to the impacts of the pandemic on public finances, countries were already facing many long-term structural challenges. They include climate change, population ageing, the acceleration of digitalisation and automation, the slowdown in economic growth, as well as rising inequalities. While the pandemic may have temporarily shifted the focus away from many of these long-standing challenges, the COVID-19 crisis has also exposed a number of pre-existing structural weaknesses, such as rising inequalities, inadequate social safety nets, and unequal access to health care and digital infrastructure.

The crisis and a desire to “build back better” presents countries with an opportunity to rethink their approach to public finances, with the aim of achieving inclusive and sustainable economic growth. As most G20 countries navigate their way through the recovery phase, there is an opportunity for countries to undertake a fundamental reassessment of their tax and spending policies along with their overall fiscal frameworks. Such a reassessment will need to take into account both the challenges brought to the fore by the crisis as well as those related to the many long-term structural trends they face, in order to determine the appropriate mix and range of fiscal policies needed to deliver inclusive and sustainable economic growth over the medium to long term.

Countries will need to develop public finance strategies that take account of their country-specific circumstances and involve a combination of measures to support sustainable tax revenues and to improve the quality of public spending, including through improved public finance governance. For some countries, increased domestic resource mobilisation will be needed to fund additional spending, whereas in countries with already high current levels of taxation and spending, there may be a need to contain spending growth and improve its efficiency. While tax revenues can be bolstered through changes to the tax system, such as adjusting tax rates, broadening tax bases and altering the tax mix, they can also be augmented with structural reforms that support long-term economic growth and, in turn, larger tax bases, for example, through better education and training, and reforms in the labour and product markets. On the spending side, expenditure reviews could help countries select priorities, identify areas for saving and efficiency-improvements by reducing low-priority or ineffective expenditure and freeing up resources for policy areas of priority.

The aim of this paper is to initiate a discussion on the tax policy design options that countries may wish to consider that can foster inclusive growth that is both fiscally and environmentally sustainable over the medium to long term. This discussion will acknowledge the breadth of public policy objectives, including inclusiveness, improved health outcomes, resilience, environmental sustainability and economic growth. The paper builds on earlier OECD work, revisiting findings and recommendations in light of the specific impacts of the COVID-19 crisis, as well as the pre-existing long-term structural challenges that countries continue to face.

2 Economic and societal trends shaping public finances

A wide range of long-term structural trends are impacting the functioning of economies and societies worldwide. The structural trends include slowing productivity growth, accelerating digitalisation, automation and artificial intelligence, rising inequalities, population ageing, changes arising from globalisation and mobility, climate change and environmental degradation and rising health risks. Some of these trends are interrelated, and most have been influenced in some way by the COVID-19 crisis. These trends can affect public finances in many ways: directly through changes in the number of taxpayers and benefit recipients, as population ageing is causing; by influencing policy priorities in the post-crisis environment; and impacting the different tax and spending policy instruments available to policymakers.

A forward-looking public finance strategy should carefully consider these trends. Fiscal strategies should reassess tax and spending priorities and which instruments could be most effective in achieving countries' objectives given these structural changes, both now and as they evolve in the future. Section 2 briefly describes some of these structural trends. Section 3 will then zoom in on their main tax policy implications.

2.1. Economic growth has slowed

Sustained periods of low economic growth undermine tax revenues and make it difficult to address spending pressures, maintain public debt sustainability, and – more generally – improve populations' living standards. Productivity growth has decreased in the majority of G20 countries over the past decades. Possible causes of this slowdown include, among other factors, disappointing gains from recent innovation waves, likely due to some extent to adjustment costs and insufficient diffusion of new technologies and innovations across firms; a decline in business dynamism and reallocation of resources; and a levelling of educational attainments. The COVID-19 crisis could have positive effects on long-term productivity, for example by accelerating digitalisation, in particular the adoption of digital technologies by small and medium-sized businesses in services sectors. However, large recessions can have long-lasting and negative effects on productivity, including on the productivity of labour market entrants. As past crises have shown, even if some scarring effects could be mitigated by well-designed temporary job-retention schemes that support productivity-enhancing job reallocation (Andrews et al., 2020^[1]; Andrews, Charlton and Moore, 2021^[2]; von Wachter, 2020^[3]).¹ In the case of the COVID-19 crisis, disruptions in education are likely to reduce skills, productivity and earnings of the current students, with possible negative effects on future GDP (Hanushek and Woessmann, 2020^[4]).

Higher economic growth would lower the debt-to-GDP ratio on its own. Towards this end, governments should implement ambitious structural reforms to boost potential growth (OECD, 2021^[5]).

¹ Von Wachter (2020^[3]) suggests that the persistent earnings reduction experienced by labour market entrants in a recession can last 10-15 years and are mostly linked to the reduction in hourly wage rather than in labour supply, thus pointing to long-lasting effects on productivity.

However, the experience from the past decade suggests that achieving higher growth quickly through structural reforms may be challenging without monetary and fiscal support. The sequencing of reforms will be particularly important to help the economic recovery gain traction, which implies starting with reforms that do not dampen aggregate demand in the near term and work particularly well in periods of economic slack. Such reforms include lowering regulatory barriers to entry in professional services or strengthening active labour market policies and expanding access to childcare and family benefits to promote labour force participation. Enhancing activation and skills acquisition, as well as facilitating competition and business entry and exit, will also improve labour market opportunities for all and help to foster productivity-enhancing reallocation.

Public investment can also support long-term growth if it allows for the accumulation of productive capital (Bom and Ligthart, 2014^[6]). In addition, public investment in sectors that have large positive externalities for the rest of the economy could help to meet important social and environmental objectives, where market failures (among other factors) cause underinvestment by the private sector, and boost potential growth (Égert, Botev and Turner, 2019^[7]; Hendren and Sprung-Keyser, 2020^[8]). This applies in particular to public infrastructure investment in digital networks, transportation and energy, and in education and health care. Public investment in these areas can improve productivity and be an important source of new jobs for displaced workers – provided there is adequate support for the transition, while helping to support demand as they usually have strong multipliers (Pain et al., 2018^[9]). Current very low, and in some cases negative, bond yields make public investment particularly attractive. In this context, the initiatives in the European Union and the United States are welcome.²

There are, however, a number of challenges that can hinder public investment. These difficulties may include the need for co-ordination across sectors, jurisdictions and governmental bodies; having sufficient capacity to design and implement investment strategies; and framework conditions related to good practices in budgeting, procurement and regulatory quality. Governments can improve the governance framework for infrastructure spending by moving to OECD best-practice principles in this area (OECD, 2017^[10]).

2.2. Digitalisation is accelerating

The digitalisation of the economy has been ongoing for several decades and is being accelerated by the COVID-19 crisis. While offering opportunities to enhance productivity and long-term growth with subsequent benefits for tax revenues and debt sustainability, digitalisation also poses challenges. For instance, a key challenge is that skills to use digital technologies are crucial in a more digitalised world, increasing the importance of public spending on education and lifelong learning (Gal et al., 2019^[11]; OECD, 2019^[12]). Digitalisation also affects workers through the rise of the “gig economy” which offers flexible business models but can result in tax distortions and gaps in social protection systems (Milanez and Bratta, 2019^[13]; OECD, 2018^[14]). In addition, specific features of digital markets that are conducive to a “winner-takes-most” dynamic can contribute to the concentration of activities among a small number of highly profitable and intangible-intensive “superstar” firms, posing challenges for competition policy and corporate taxation (OECD, 2018^[15]). Finally, school closures during the pandemic have also highlighted remaining gaps in access, quality and use of digital resources for learning by, and teaching of, children and students, requiring means to level up digitalisation take-up (OECD, 2021^[16]).

² The EU Recovery and Resilience Facility funds are expected to boost government investment and increase public financial support for private investment in 2021-22, particularly in the green and digital transitions. The US administration’s “American Jobs Plan” and “American Families Plan” includes fiscal support for decarbonisation, infrastructure, research and development, job training, childcare and universal pre-school.

Fiscal policy will need to adapt to a digitalising world, which imposes new pressures and constraints on social protection systems and income tax bases. Improving broadband connectivity, helping firms to develop online business models, enhancing acquisition of digital skills, and ensuring secure online payments and data privacy, are all areas of reform that would help to foster the digital transformation and ensure that poorer households, small firms and remote regions also have access and can benefit. Digitalisation thus provides opportunities for progress that fiscal policy can and should harness, as it will require investment in infrastructure and skills (OECD, 2019^[17]; OECD, 2019^[18]), while allowing for more efficient public administration and enhanced tax compliance (big data are for example increasingly used by tax administrations to combat tax fraud) (OECD, 2021^[19]).

Good progress is being made through the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) to address the tax challenges arising from the digitalisation of the economy.

The [“Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy”](#) of 1 July 2021 (OECD, 2021^[20]), which has been agreed to by 134 jurisdictions, marks a significant development in multilateral efforts to reform the international tax rules and ensure that they are “fit-for-purpose” in the modern economy. Under the two-pillar package, Pillar One seeks to ensure a fairer distribution of taxing rights among countries with respect to the largest and most profitable multinational enterprises (MNEs), including digital companies. It would re-allocate some taxing rights over MNEs from their home countries to the markets where they have business activities and earn profits, regardless of whether firms have a physical presence there. Pillar Two seeks to put a floor on competition over corporate income tax, through the introduction of a global minimum corporate tax rate that countries can use to protect their tax bases.

2.3. Inequalities are rising

Increasing inequality across different economic and social dimensions adds pressures on government social programmes and undermines growth and political stability. Top income and wealth shares have grown notably in most OECD countries since the 1980s, and the incomes of the poorest 50% of the distribution have stagnated in many of the richer nations (Balestra and Tonkin, 2018^[21]; Alvaredo, 2018^[22]). G20 emerging-market economies are still home to almost half of the world’s people living in poverty (OECD/UNDP, 2020^[23]).

Furthermore, in many G20 countries, real incomes of the lower and middle-classes have stagnated given higher consumer price inflation than wage inflation. Particularly strong inflation in education, energy, healthcare and housing costs has added to constrained opportunities for social mobility (OECD, 2018^[24]; OECD, 2019^[25]). The low-carbon transition will potentially create energy affordability concerns, at least in the short run, in particular for lower- and middle-income households that will need to be addressed.

The increase in inequality within advanced economies is partly due to automation and globalisation, which have affected the distribution of market incomes, inequality of opportunities and tax and transfer systems that have been less effective from a redistributive perspective (Causa, Browne and Vindics, 2019^[26]). The COVID-19 crisis is likely to exacerbate economic inequalities in the medium to long-run as its impacts have been disproportionately felt by already vulnerable groups, such as the young, low-skilled and women (OECD, 2020^[27]). For example, school closures during the crisis have had a relatively more negative impact on the education of children from disadvantaged backgrounds, likely increasing the gap between their future employment opportunities (and earnings potential) and those from more affluent backgrounds (OECD, 2021^[28]; Hanushek and Woessmann, 2020^[4]).

Fiscal policy can address different forms of inequality, not only via a progressive tax and transfer system but also by promoting greater equality of opportunities. Inequality can be tackled by improving access to high-quality education, health care, affordable housing and lifelong training programmes (O’Reilly, 2018^[29]). The tax system can play a role in improving levels of inequality both before and after

tax. For example, changes in inheritance taxation, such as limiting generous and regressive tax exemptions, could partially address wealth inequality while raising revenue for additional social spending (OECD, 2021^[30]; Blanchard and Rodrik, 2021^[31]). Adapting the support given to low-income households as countries emerge from the COVID-19 pandemic is likely to be an important component of government policy responses as they seek to tackle poverty and income inequality. In particular, including non-standard forms of work within the coverage of traditional social protection systems would strengthen equity (Milanez and Bratta, 2019^[13]). A number of G20 and OECD governments have also recently increased income taxes and/or enacted wealth taxes on the highest earners and wealthiest households to increase revenue (OECD, 2021^[32]).³ This suggests that there is space available to increase the progressivity of the tax system in some countries in response to rising inequalities.

Tax policy also needs to reflect ongoing challenges and progress in international co-operation on taxation. Broadening tax bases and improving compliance might be a way to increase tax collection and reduce the negative fiscal and social consequences of tax avoidance. For example, capital taxation may gain greater importance in future tax systems as the potential for more effective taxation of capital incomes has been enhanced by the implementation of the automatic exchange of taxpayer information (AEOI). The AEOI has ensured that countries now have increased tools available to detect any offshore assets and income (O'Reilly, Parra Ramirez and Stemmer, 2019^[33]). Increasing the resources of tax administrations could boost tax revenues significantly and, likely, in a progressive way (Sarin and Summers, 2019^[34]; Alstadsaeter, Johannesen and Zucman, 2019^[35]; Londoño-Vélez and Ávila-Mahecha, 2021^[36]).

2.4. Populations are ageing

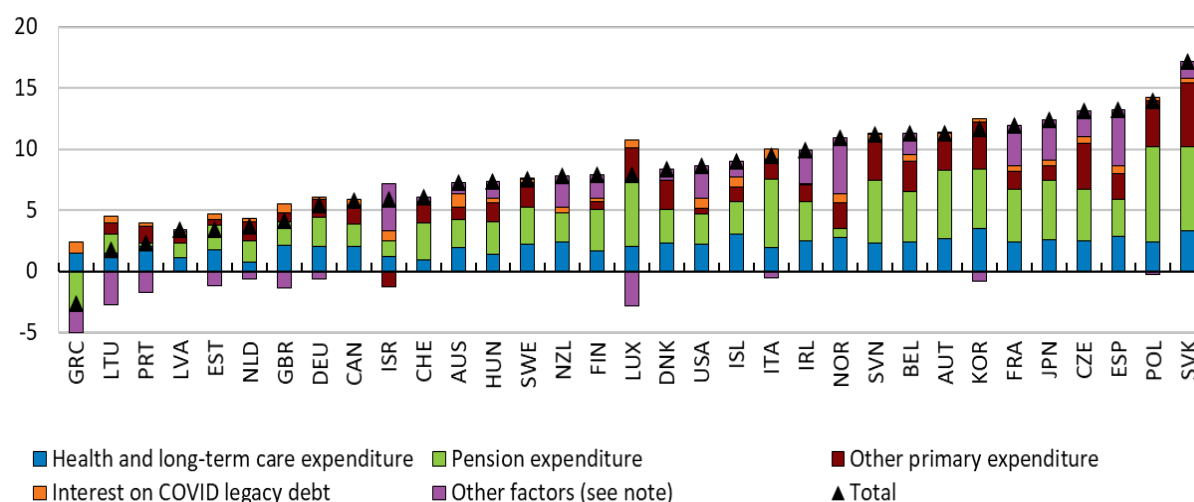
In most G20 countries, populations are ageing, in particular in high income economies, resulting from declining fertility and increases in life expectancy (UN DESA, 2020^[37]). This process puts strong upward pressure on public spending related to pensions, health care and long-term care (Rouzet et al., 2019^[38]). According to the OECD long-term projections, the median OECD country would require an increase in structural revenue of 8 percentage points of GDP by 2060 to stabilise public debt ratios near current levels, mostly due to higher expenditures linked to population ageing (see Figure 2.1).

One of the most effective ways of alleviating future fiscal pressures stemming from population ageing would be to undertake reforms to labour market policies and public pension programmes that raise employment rates and extend working lives (Rouzet et al., 2019^[38]). Improving active labour market participation is likely to require changes in tax and spending policies to enhance financial incentives to work, such as by reducing marginal tax rates for second earners, and providing employment support services, including affordable, quality childcare provision. Another effective way would be to index long-term fiscal programmes to their underlying drivers, such as life expectancy in the case of pensions, which can also help reduce fiscal uncertainty (Orszag, Rubin and Stiglitz, 2021^[39]). Many countries have already moved in this direction (such as Denmark), although some of them have later seen some reform reversals (OECD, 2019^[40]). According to stylised OECD simulations wherein OECD countries undertake ambitious labour market reforms and increase effective retirement ages, fiscal pressure in 2060 could be reduced substantially relative to a no-reform scenario, by between 2 and 8 percentage points of GDP (Guillemette and Turner, 2021^[41]). The fiscal dividends would mostly accrue due to longer working lives reducing future pension and other primary expenditure as a share of GDP, with much less impact on health expenditure.

³ Along with the potential exacerbation of existing inequalities because of the COVID-19 crisis, concerns have been reinforced by recent studies suggesting that the wealthiest households often pay effective tax rates that are far below statutory tax rates and lower than the effective tax rates paid by less wealthy households (Alstadsaeter, Johannesen and Zucman, 2019^[127]; Saez and Zucman, 2019^[147]).

Figure 2.1. The contribution of population ageing to future fiscal pressures is considerable in most OECD countries

Improvement in the underlying primary balance that would be required to offset projected fiscal costs related to population ageing between 2021 and 2060 (% of potential GDP)



Note: The chart shows the ratio of structural primary revenue to GDP must evolve between 2021 and 2060 to keep the gross debt-to-GDP ratio stable near its projected 2022 value over the projection period (which also implies a stable net debt-to-GDP ratio given the assumption that government financial assets remain stable as a share of GDP). The underlying projected growth rates, interest rates, etc., are from the baseline long-term scenario presented in Guillemette and Turner (2021^[41]). Expenditure on temporary support programmes during the COVID pandemic are assumed to decline to zero within a few years. The component "Interest on COVID legacy debt" approximates the permanent increase in interest payments due to the COVID-related increase in public debt between 2019 and 2022. The component "Other factors" mostly reflects the correction of any initial disequilibrium between the 2021 structural primary balance and the one that would stabilise the debt ratio.

Source: Guillemette and Turner (2021^[41]), "The Long Game: Fiscal Outlooks to 2060 Underline Need for Structural Reforms", *OECD Economics Department Policy Papers n°29*, forthcoming.

Countries will also need to consider how they ensure the sustainable financing of health systems.

Where health financing currently relies strongly upon health social security contributions, the impact of an increasing share of older persons living beyond their working life may require new approaches to health financing. There is a limit to the extent that higher health (and pension) expenditure can be financed by increasing social security contribution (SSC) rates, as this will increase the tax-inclusive price of labour and price certain types of (in particular lower-productive) workers out of the labour market. Therefore, countries may want to consider a partial shift in the funding of health funds away from SSCs towards (less distortive types of) general taxation, in particular because the link between health contributions and health benefits received is weak. The financing of health could also be supported by greater reliance on well-designed health taxes (on alcohol, tobacco, sugar, pesticides, etc.), which could play a more central role in the tax system to help strengthen the resilience of health systems to the ageing of their populations. These taxes have significant revenue potential, including in developing countries. In addition, if these health taxes can support a healthier workforce, they could deliver additional benefits of greater productivity, longer participation in the labour market and a greener and healthier natural environment.

2.5. Environmental sustainability and climate change call for urgent change

Climate change risks dire social and economic consequences. While the precise nature of the negative effects of climate change are uncertain, frequent extreme climate events (e.g. climate catastrophes) have the potential to reduce economic growth, increase its volatility and undermine political

stability, with the destruction of physical infrastructure, disruptions to production, and population migration (Office for Budget Responsibility, 2021^[42]). Such conditions could undermine fiscal sustainability as they would require, among other things, extra spending in response to climate events, as well as on social benefits and health care and would erode certain tax bases.

Mitigating climate change and associated negative risks calls for urgent action across a wide range of policy areas, with tax and government spending playing a key role. A crucial priority for the coming decades is to reduce carbon emissions, with an objective of net zero emissions by the middle of the century. The transition to a low-carbon economy could offer new opportunities for growth, improvements in the quality of life, new sources of government revenues and could bring a range of significant longer-term benefits. However, it may also create disruptions to current business models and require substantial financial resources during the transition.

- Effective pricing of harmful emissions and polluting activities, through either taxes or cap-and-trade systems of emissions permits, is needed. Ambitious emissions pricing could raise large amounts of revenue in the short and medium terms, however the resulting lower consumption of fossil fuels, particularly in the transport sector, could also reduce tax revenues (Marten and van Dender, 2019^[43]).⁴ Fossil fuel subsidies also continue to distort price signals and weigh on public budgets, and should be phased out.
- Fiscal policy could directly support environmental sustainability through fiscal incentives to R&D, direct grants, public research and support for early-stage development (OECD, 2011^[44]; Hepburn, Pless and Popp, 2018^[45]), as well as new infrastructure investment projects, including expanding and modernising electricity grids, renewables capacity and transport network.
- All such steps would need to be accompanied by a package of compensating measures to mitigate the adverse impact on poorer households, affected regions and small businesses, and to help displaced workers acquire new skills and take advantage of new employment opportunities, and consequently ensure public acceptance.⁵ They will also require international co-ordination due to the potential for emissions leakages (e.g. through supply chains) and the implications of tax and subsidies for countries' competitiveness.

Efforts to significantly reduce climate change need to be complemented with measures to build resilience to climate change induced impacts. Even if global average temperature increases are limited to below 2°C, there will still be serious climate impacts. This implies that mitigation and adaptation are complementary, and adaptation can reduce the earliest costs of climate change (OECD, 2015^[46]). Measures to adapt to climate change will be indispensable to not only safeguard lives and secure livelihoods, but also to contain rising inequalities exacerbated by a changing climate (Gamper and Lamhauge, 2021^[47]). Such conditions will require, among other things, protective measures for vulnerable communities and infrastructure. However, climate adaptation measures should not undermine investment in mitigation as this would ultimately worsen the medium to long-term impact of climate change (Gamper and Rambali, 2021^[48]).

⁴ For instance, the fall in revenues from taxes on motoring is expected to be the single largest cost of the transition in the United Kingdom. (Office for Budget Responsibility, 2021^[42]).

⁵ The Government of British Columbia introduced a carbon tax in 2008. While there was some backlash towards this tax, it has remained an important element of environmental and fiscal policy. Possible reasons for this include increased familiarity with the tax; a range of support measures, including aid to firms, income tax cuts and targeted tax rebates and financial transfers; and the importance of the tax revenue for the provincial budget (Harrison, 2013^[148]).

3 Tax reform for inclusive and sustainable economic growth

The COVID-19 crisis has caused a significant deterioration in public finances, which calls for a rethink of tax and spending policies once the recovery is well underway. The unprecedented fiscal response to the COVID-19 crisis has been necessary and has prevented larger declines in employment, income and output, paving the way for a sustainable recovery. However, government debt in relation to GDP has reached the highest levels seen over the past several decades, which means that once the recovery is well advanced, policymakers will have to grapple with the challenge of ensuring public debt sustainability over a medium to long-term horizon.

In rethinking their approach to public finances, countries will need to adapt their tax policies to address the structural trends and challenges they face. Over the last decade, tax policy reform discussions have moved away from a relatively narrow focus on the link between taxation and economic growth (Arnold et al., 2011^[49]; Lee and Gordon, 2005^[50]) towards tax reform that puts equity and economic growth on an equal footing. Increasingly, tax policy reform recommendations for inclusive growth have recognised that equity and growth can go hand in hand (Brys et al., 2016^[51]). Tax policy is not static and needs to evolve in light of structural challenges and changing policy priorities so that it can continue to play a role in stimulating inclusive and sustainable growth. Moreover, the financial and economic crisis of 2008 and the COVID-19 crisis have highlighted the central role governments have in absorbing shocks, providing relief and promoting recovery. This role requires significant financial resources, the majority of which policymakers will be looking to tax systems to provide. As a result, there is a need for countries and policymakers to re-evaluate their tax systems and their previous tax policy advice to ensure that they take into account the changing economic and social landscape.

While taxes are the principal means through which governments raise revenues, the role of tax systems goes beyond revenue raising. Tax systems need to address multiple challenges. Tax systems can simultaneously raise revenues, while contributing to addressing the problems of low productivity growth and rising inequality in a context where debt levels have increased considerably as a result of the COVID-19 crisis. These challenges arise in a context of increasing fiscal pressures as a result of ageing populations and climate change. The mobility of capital and of (certain types of) labour in a globalised and rapidly innovating world raise the efficiency costs of using taxes on labour and capital to further enhance domestic equity goals. Technological change and its implications for the future of work challenge traditional social protection systems and require adjustment mechanisms to help individuals navigate the transition.

In many instances developing countries face additional challenges in the design of their tax systems. As fiscal space has become more limited and debt burdens even heavier in many developing countries as a result of the COVID-19 crisis, renewed efforts will be required to improve domestic resource mobilisation. Increasing levels of formalisation amongst businesses and in the labour market will be crucial to raise revenues for public spending in general, and social protection systems in particular, as will reviewing inefficient tax expenditure provisions. Finding ways to enhance the role of social security contributions and health taxes to better finance health systems and encourage healthier behaviours should also be a priority.

Following a systems approach to tax policy design

While improving the design of individual taxes is important, it is not sufficient to develop a coherent tax system that promotes inclusive and sustainable growth. Efficiency-equity trade-offs depend on the interactions between many factors both within and beyond tax systems (Alt, Preston and Sibieta, 2011^[52]; Brys et al., 2016^[51]; Slemrod and Gillitzer, 2013^[53]). While this report focusses on tax policy, it is important to highlight that its interactions with other key fiscal policy design features, such as those related to public spending and the governance of the fiscal system are equally important in determining its effectiveness.

Tax system design will be influenced by a country's spending priorities and, therefore, cannot be considered in isolation. The tax system needs to raise sufficient revenues to finance the spending priorities that governments have identified. Therefore, discussions about tax system design should not occur in isolation from discussions around the level and quality of public spending. In this context, the COVID-19 crisis and the ongoing structural challenges that countries face highlight the importance of ensuring that tax systems have the capacity to raise the revenues necessary to finance certain public spending priorities, including education and lifelong learning, resilience to health challenges, and investment in digital and green innovation and infrastructure.

Tax systems should be aligned with a country's broader policy objectives. Tax systems should be designed in a way that provides direct and indirect support to the country's broader policy objectives. For instance, tax systems can induce individuals to engage in certain behaviours and refrain from engaging in others, such as by promoting healthy consumption decisions through the use of health taxes.

Fiscal frameworks may also need to be adapted given increased financing needs and higher average debt levels. In general, fiscal frameworks will need to support resilient public finances by internalising future socio-economic and political uncertainties, for instance through the design of automatic stabilisers and fiscal rules, and active debt management (Orszag, Rubin and Stiglitz, 2021^[39]). More specifically, rules that have led to excessive complexity, governance issues and poor design should be revised. Pro-cyclical fiscal policy should be avoided. Efficient governance of tax and public spending will also play a role, e.g. through independent fiscal institutions, spending reviews, multi-year budgeting and tax expenditure reports, as well as the relationships between different levels of government in taxation and public procurement, for instance.

Revisiting tax policy design criteria

The design of tax systems must be coherent to address the structural challenges countries face. Tax policy coherence has received little attention in the tax policy literature, resulting in tax policies that can provide contradictory incentives or have conflicting implications for equity. For instance, in the context of tackling the climate change challenge, some countries have introduced R&D tax incentives for green investment or subsidise building insulation while continuing to provide fossil fuel subsidies and tax pollution at a rate below its social cost. While some countries that have raised carbon prices continue to provide tax incentives for the use of company cars or to tax diesel more favourably than gasoline. In the personal income context, some countries have increased personal income tax rates at the top of the income distribution, while at the same time providing generous and highly regressive tax expenditures that benefit high-income earners.

The structural tendency towards further increases in inequality demand improvements in the redistributive capacity of the tax and transfer system. The tax system must account for forms of inequality that go beyond the standard concepts of horizontal and vertical equity to include a more explicit focus on equality of opportunity, gender and racial equity, intergenerational equity, regional equity, as well as equity between countries. While the distributional effects of taxes (and transfers) has received a lot of attention in the tax policy literature, of at least equal importance is whether the taxes imposed are

affordable for those on whom they are imposed, which is necessary to avoid that the tax system pushing taxpayers into poverty. Finally, tax morale and the integrity of tax systems are increasingly challenged if certain societal groups perceive that the tax burden they pay is too large relative to the benefits and opportunities they receive. Similarly, taxpayers can lose confidence in the integrity of the tax system when corrective taxes are levied to induce behavioural change where there are limited alternatives to those behaviours or where there is insufficient time or resources to adjust their behaviours.

Longer time horizons should also be more explicitly incorporated into the design of tax systems to help tackle long-term challenges. This may involve tax measures that evolve over time. For instance, countries could further increase excise duties on transport to encourage electrification of vehicles, but gradually move towards some form of distance-based charging. Clear communication of policy direction will also be important if governments are to successfully induce behavioural change, such as clear long-run trajectories for tax rates and prices. The increased digitalisation of the tax administration may enable certain types of income to be taxed on a lifetime rather than an annual basis, by averaging income over time in calculating personal income tax liabilities. Indeed, some countries have already been able to introduce a tax-free amount for lifetime wealth transfers in the context of their inheritance tax regimes.

Making tax reform happen

Countries should consider implementing a mix of tax policies as part of policy packages. Trade-offs may need to be made and tax (and spending) policies may need to be implemented in policy packages, while reforms may also have to be sequenced over time, and combined with well-designed compensation measures.

Changes to tax policy must consider the different ways and varying degrees that structural trends will affect households. Households who have lower incomes, are less skilled and are not active in the labour market are estimated to be hit harder by many of the structural trends than higher-income and higher-skilled workers who have greater financial means to absorb transition costs and may also be more likely to benefit from these longer-term changes. The implications of climate change will be felt by all, but richer households have a greater financial capacity to adapt to changing life conditions. In order to ensure that everyone has an opportunity to thrive, governments will have to carefully assess the impacts of policy changes and, where appropriate, design effective compensation mechanisms.

Designing effective compensation mechanisms has proven to be an exceptionally challenging aspect of implementing successful tax reforms. There are many reasons as to why this has been so difficult. From the growing pressures on governments to implement reforms with no or virtually no “losers” to the increasing challenge of not only adequately compensating households, but doing so to the extent that they also perceive this to be the case. Firstly, designing effective compensation mechanisms requires a detailed understanding of the distributional impacts of these long-term structural trends and the policies to be implemented in response to them. Secondly, governments need to decide who will be compensated, the value of the compensation and its duration. Thirdly, there are wide range of forms that compensation can take that may influence the success of any reform, including personal income tax reductions, increased pensions or cash benefits, training provisions, and subsidies for purchases of specified goods. Furthermore, reaching all households within the target group can be challenging, and different types of households might have to receive different types of compensation depending on their needs.

Introducing tax reforms that address the multiple challenges and opportunities that our economies face will be challenging and many different issues will need to be addressed simultaneously. The remainder of this section presents some initial insights in three areas of ongoing work: growth-friendly tax policies (Section 3.1), tax policies for equitable societies (Section 3.2) and taxation for a sustainable environment (Section 3.3), as well as highlighting the tax policy challenges faced by developing countries (Section 3.4). While the analysis does not aim to provide definitive answers, it offers some direction for reforms that will be explored as part of further work in the future.

3.1. Growth-friendly tax policies

Tax policies to support inclusive and sustainable economic growth beyond COVID-19 will need to support the efficient use of productive factors, by encouraging labour market participation and skills development, and by increasing business investment, productivity growth and diffusion.

Structural trends and challenges are prompting a reconsideration of the relationship between tax design, investment and economic growth. While the literature on the impact of taxation and growth is long-standing, recent structural trends are prompting a rethink. Continued globalisation, through expansion in foreign direct investment (FDI) and deepening global value chains (GVCs), changing patterns of market concentration, and substantial changes to the international tax system all require a deeper analysis of the relationship between tax and investment, including of its international aspects, as well as how it varies across firms. There is also a need to understand how investment can support climate goals. Ageing societies, increased geographic worker mobility, and the growth of non-standard work are also prompting a reconsideration of the role of labour tax systems, focusing not only on the quantity of labour supply, but who supplies it, how, where and in what form. Skill-biased technological change, digitalisation, and automation all highlight the important role of human capital investment. The productivity slowdown, the rising role of intangibles, as well as concerns about productivity dispersion across firms, highlight the importance of considering how tax policies can support productivity growth, innovation, productivity diffusion, and business dynamism.

Tax and capital investment

Earlier research linking tax structures to economic activity has stressed the adverse effect of taxes on capital and labour income relative to other tax categories. Earlier studies have suggested that shifts in the tax mix from direct taxes to indirect taxes such as taxes on immovable property or consumption, are likely to be growth-enhancing (Johansson et al., 2008^[54]; Arnold et al., 2011^[49]). There is strong evidence to suggest that both tax levels and structures can affect economic performance across countries (OECD, 2010^[55]).

However, many of these earlier studies focussed on the growth impacts of tax structures, without paying equal regard to the distributional and sustainability implications of tax policy. More recently, tax policy reform recommendations for inclusive growth have recognised that equity and growth can go hand in hand (Brys et al., 2016^[51]). In light of structural challenges and changing policy priorities, tax policy will have to evolve further so that it can continue to play a role in stimulating inclusive and sustainable growth.

The behavioural impact of taxes may vary across contexts, in particular between countries who are at different stages of development, and good tax policy design will also depend on the tax system that is already in place. Aligned with a tax systems approach, the distortive impact of a shift in the tax mix, for instance, will depend on the tax mix that is in place and the level of the tax rates that are levied at the time reform is contemplated. Tax reform recommendations themselves can produce decreasing returns to scale and may have to be nuanced and even re-evaluated to the extent that they have already been successfully implemented in the past. These findings also imply that tax impacts on economic activity are likely to vary across a wide range of circumstances and that policy recommendations should therefore build on additional research using more disaggregated data.

In many countries, limited scope exists to further increase statutory VAT/GST rates, however, in many countries opportunities to broaden the VAT/GST base remain. In response to the financial and economic crisis of 2008/9, many OECD and G20 countries have increased their statutory VAT/GST rate in order to collect more tax revenues. For many countries, there is merit in prioritising reforms that broaden the VAT/GST base, in particular by abolishing targeted reductions and exemptions that are more beneficial to high income and wealthier households. Recent research has shown that broadening the VAT base

through fewer reduced rates and exemptions is more conducive to higher long-run growth than a rise in the standard rate (Acosta-Ormaechea and Morozumi, 2019^[56]).

The impact of tax structures may have been changing as the economy has evolved over recent decades. Key trends include expanding digitalisation, low interest rates, increased prominence of intangibles and expanding market concentration. An increasing amount of international evidence suggests that firm-level mark-ups and industry concentration are rising, particularly in digital-intensive and services sectors (Calligaris, Criscuolo and Marcolin, 2018^[57]; Bajgar, Criscuolo and Timmis, 2020^[58]; Syverson, 2019^[59]) (De Loecker, Eeckhout and Unger, 2020^[60]). The ability of firms to charge higher mark-ups may be due to a decrease in competition intensity; but it may also be the result of “winner-takes-most” dynamics where the most productive firms gain a larger share of the market (Autor et al., 2020^[61]). Higher mark-ups and lower competition intensity have been associated with lower investment (Gutiérrez and Philippon, 2018^[62]; Gutiérrez and Philippon, 2017^[63]). Prolonged periods of low interest rates could have implications for the design of growth-enhancing tax policies (Auerbach and Gale, 2021^[64]) as for example low rates may narrow the difference between accelerated and standard depreciation.

The international tax landscape is also evolving rapidly, as evidenced by the steady decline in statutory corporate income tax rates, an expansion of tax incentives and continued concerns about profit shifting. The average statutory corporate income tax (CIT) rate in OECD countries has declined from above 32% in 2000 to around 23% in 2020. A similar trend is observed across a sample of more than 90 developing and developed countries over the same time horizon, with the average CIT rate declining from around 28% to just below 21% (OECD, 2021^[79]). Forward-looking effective average tax rates, capturing not only the statutory rates but also standard components of the corporate tax base, point in the same direction, declining on average from 29% to around 23% in a balanced panel of OECD and G20 countries over the period 1999 to 2017 (OECD, 2020^[65]). Expenditure- and income-based tax incentives for R&D are increasingly used to promote business R&D in OECD countries and beyond (Appelt, Galindo-Rueda and González Cabral, 2019^[66]; Evers, Miller and Spengel, 2014^[67]; Gaessler, Hall and Harhoff, 2021^[68]; OECD, 2021^[69]), while developing and emerging countries make extensive use of tax incentives as discussed below. In addition, most major economies have now shifted from worldwide to territorial systems, implying that tax rate differentials have potentially become more relevant for real economic decisions. Given this background, countries face the challenge to combine growth-enhancing policies with the need to sustain tax revenues as well as ensure tax certainty.

Competitive pressures in the area of business taxation can be seen through the widespread use of tax incentives to encourage investment. In particular, emerging and developing economies often adopt tax incentives to attract FDI (Abbas and Klemm, 2013^[70]; James, 2013^[71]; IMF OECD UN World Bank, 2015^[72]; Andersen, Kett and Von Uexkull, 2017^[73]). These incentives are used in search of the positive spillovers on output, local employment and productivity that may come with increased investment activity, as well as due to domestic capital scarcity and lack of, or costly, development financing mechanisms.

Tax incentives often come at a substantial cost to a country and their use deserves careful monitoring and analysis to understand whether their benefits outweigh these costs. Poorly designed incentives may restrict revenue-raising capacity without yielding significant investment increases, thereby limiting efforts to mobilise domestic resources and creating windfall gains to investors, or yielding investments of low quality, with limited spillovers on productivity and employment (IMF OECD UN World Bank, 2015^[72]). It is therefore essential that these incentives be well designed, transparent, maximise additionality, and minimise windfall gains. To maximise positive spillovers, investment tax incentives should align with broader policy goals such as advancing decarbonisation strategies, improving job quality, or improving local supply linkages.

The impacts of investment tax incentives depend on their design; with evidence suggesting that expenditure based incentives may perform better than income-based incentives although they can still involve substantial costs. The costs and benefits of investment tax incentives are highly design-

and context-specific and are not always well understood. The empirical evidence on the benefits of tax incentives is limited but so far the evidence suggests that the design of incentives is critical for their success. Expenditure-based incentives (e.g., accelerated depreciation, allowances, and credits) increase the likelihood of generating additional investment as they directly target investment expenses. The value of income-based incentives (e.g., reduced rates and exemptions), on the other hand, relates to the profit rate of a firm. This may provide benefits to companies that plausibly would have invested regardless of the preferential treatment. Some of the literature has suggested limited investment responses to income-based incentives in developing economies (Klemm and Van Parys, 2012^[74]; Chai and Goyal, 2008^[75]). By contrast, there is evidence suggesting that expenditure based incentives have increased investment in OECD countries (Maffini, Xing and Devereux, 2019^[76]; Zwick and Mahon, 2017^[77]; House and Shapiro, 2008^[78]; Cohen and Cummins, 2006^[79]).

Recent research suggests that investment responses to taxation vary significantly across different firms. Empirical studies generally find a negative correlation between business taxation and investment (De Mooij and Ederveen, 2003^[80]; Feld and Heckemeyer, 2011^[81]). Higher corporate income tax, by reducing the after-tax returns on investment, can lead some firms to forgo, downscale or relocate some investment projects. However, in contrast to domestic firms, MNEs are able to shift profits to lower-tax jurisdictions thus avoiding the full tax burden associated with their investments and making them less sensitive to taxation (Sorbe and Johansson, 2017^[82]). Higher mark-ups have been associated with lower sensitivity to investment, as mentioned above, an effect that could be driven by economic rents or an increased reliance on intangible assets (Crouzet and Eberly, 2020^[83]) or competitive advantages gained through international tax planning (Sorbe and Johansson, 2017^[82]). Investment of MNE entities located in jurisdictions with stronger transfer pricing regulations is more sensitive to tax changes, while global investment at the MNE group level does not show a significant response to a strengthening of these regulations (De Mooij and Liu, 2018^[84]). New evidence also suggests that investment responses of entities that are part of highly-profitable MNE groups are more limited compared to entities in other groups (Millot et al., 2020^[85]).

Given the evolving international environment, global coordination on tax policies may be even more important to support tax certainty, fiscal stabilisation and growth. Such coordination can play an important role in supporting revenues while limiting potentially negative impacts on investment. The two-pillar solution to address the tax challenges of the digital economy will introduce significant changes to the international tax rules targeted to large, highly profitable MNE groups (Pillar One) and MNE entities with low effective tax rates (Pillar Two). While global investment impacts are expected to be limited (OECD, 2020^[65]), the reforms are likely to produce a more level playing field among MNEs, and relative to their smaller and domestic-only competitors, as well as those firms not engaging in profit shifting, due to the reform's focus on the largest and most profitable MNEs, especially those engaging in profit shifting.

Policymakers should also consider the limited investment impacts of personal capital taxes. Some authors have argued that a potential reaction to competitive pressures is to reduce corporate taxes while increasing the taxation of capital at the shareholder level (Grubert and Altshuler, 2016^[86]). Empirical evidence suggests that the impact of dividend taxes on investment is modest (Yagan, 2015^[87]; Kari, Karikallio and Pirttilä, 2009^[88]; Alstadsæter, Jacob and Michaely, 2017^[89]). While these findings point to limited negative economic consequences from additional capital taxes at the personal level, such taxes may have significant equity benefits (see Section 3.2).

Tax and labour market participation

In the aftermath of the COVID-19 crisis, as well as in the context of ageing societies, it is important to support labour market participation, especially amongst those with low incomes and low levels of labour market attachment. Labour taxes can have potentially important consequences for both job quantity and job quality, particularly in the case of low-productivity workers (OECD, 2018^[90]). Social

security contributions (SSCs) in particular have risen as a share of the tax mix in recent decades. These contributions are typically less progressive than personal income taxes, with some studies suggesting that much of the negative effect of tax wedges on employment, in particular at lower income levels, is driven by the impact of SSCs (OECD, 2007^[91]). It is thus possible that shifting the tax mix from SSCs to personal income taxes and/ or by introducing lower SSC rates at lower incomes could have positive impacts on labour market activation. Such shifts are particularly important in the context of ageing societies, where there is an increasing necessity to broaden the base of social protection financing (Brys et al., 2016^[51]). Policymakers can strengthen (and in many countries already have strengthened) work incentives through an expansion of in-work benefits such as earned-income tax credits or related types of in-work benefits. Policymakers should design labour income tax burdens to incentivise work, and should carefully consider the impacts on informal workers, women, and the low-skilled, whose labour market attachment may be lower, including by carefully considering the impact of tax systems on the labour market incentives of second earners (Thomas and O'Reilly, 2016^[92]).

Tax and skills investment

Investment in human capital can support growth and inclusiveness, and will be an important response to the ongoing technological change in the economy and the ageing of populations (OECD, 2016^[93]). While much of the impact of public finances on incentives to invest in skills is concentrated on the spending side, the impact of taxes should also be considered. OECD research suggests that, on average, skills investments at the tertiary level may be at least partially self-financing from the governments' perspective in terms of additional personal income tax (PIT) and other forms of revenue. While skills investments are important, empirical evidence suggests that many tax incentives for skills may have limited efficacy (OECD, 2017^[130]).

Incentives to invest in human capital should be taken into account when considering the level and progressivity of personal income taxes, as well as the mix of labour and capital taxes at the personal level. The need to incentivise investment in skills highlights why tax progressivity discussions should focus on the whole of the tax system, and not simply the progressivity of the labour income tax system. Stantcheva (2014^[94]) argues that while progressive labour taxation can discourage investment in skills, it can also incentivise riskier skills investments by providing partial insurance against losses in earnings. She also stresses that full deductibility of skills investments can come close to an optimal policy mix. Deductibility, however, may mean that tax incentives for skills provide higher benefits to those at the top of the income distribution. Policymakers should therefore consider refundable credits, while noting that the tax system may be a second best instrument with which to incentivise skills investment. The incentive to invest in human capital is also a function of the tax burden on physical capital. Some studies have suggested that very low levels of capital taxation relative to labour taxation can distort the mix of productive factors in ways that can reduce productivity, though this finding depends on the substitutability between physical capital and labour (Acemoglu, Manera and Restrepo, 2020^[95]).

Tax and productivity

In the context of an investment slowdown in some advanced economies, as well as ageing populations, supporting productivity will be key in supporting growth. However, productivity growth has been lacklustre in the majority of G20 countries over the past decades. Supporting productivity growth through productivity diffusion, business dynamism and investment in intangible assets is crucial for policymakers. However, the links between tax policy and productivity are complex and understudied. A key policy challenge is how to support productivity increases not only by firms at the productivity frontier, but also by non-frontier firms. Developing countries have often large informal sectors, which reduces productivity even further (Andrews, Criscuolo and Gal, 2016^[96]).

Investment in intangibles such as investment in research and development (R&D), data or software are a source of increased productivity and growth, but not all firms are equally able to make and obtain the benefits from these investments. Financing intangible development is an important barrier for start-ups and young firms as intangible capital is harder to collateralise than physical capital (Demmou, Franco and Stefanescu, 2020^[97]). Aside from collateral, large firms, particularly MNEs, may have access to financing channels and rates that are unavailable to young and small firms, and are also able scale-up intangible asset investment at a lower marginal cost. Such financing barriers can be compounded by differences in tax costs of MNEs versus non-MNEs and large firms versus small firms, for example where MNEs can lower tax burdens through profit-shifting (Sorbe and Johansson, 2017^[82]). Aside from financing constraints, firms at the bottom of the productivity distribution also lack the skills and the absorptive capacity to reap the benefits from these investments. These barriers to technology and knowledge diffusion become particularly acute in digital and knowledge intensive sectors, where productivity dispersion is greater (Berlingieri et al., 2020^[98]).

The tax system can support the development of intangibles but there is a need to consider design issues. Absent any preferential tax treatment, the current tax system provides greater incentives for investment in intangible capital, typically expensed, than to most forms of tangible capital. To address certain market failures, governments may consider the use of tax incentives to promote investment in certain types of intangible capital, particularly where spillovers are greatest, e.g. by providing tax incentives for R&D and innovation (Appelt et al., 2016^[99]; González Cabral, Appelt and Hanappi, 2021^[100]; Appelt, Galindo-Rueda and González Cabral, 2019^[66]). Further research is needed to understand the short- and long-term effects of different forms of tax support for intangibles on investment and productivity.

Incentives to invest in intangibles should be designed in ways that address the market failures for targeted firms without providing unintended windfall gains to other market participants. Poorly designed incentives may lead to policies that entrench the position of incumbents further deepening the productivity gaps, particularly where market characteristics generate winner-takes-all or winner-takes-most dynamics. Tax policies need to be carefully calibrated to ensure that they do not exacerbate incumbency advantages or create opportunities for tax arbitrage. Tax incentives can generate substantial tax expenditures and should be assessed to ensure their effectiveness and value for money. The effectiveness of expenditure-based R&D tax incentives in promoting business R&D is well documented in the literature, while that of income-based incentives is less conclusive (Hall and Van Reenen, 2000^[101]; OECD, 2020^[102]; Gaessler, Hall and Harhoff, 2021^[68]).

Beyond supporting intangible investment, other aspects of the tax system may also affect productivity growth, and productivity gaps between frontier and non-frontier firms. Combining policies that enable access to intangible investments with policies that facilitate access to complementary tangible investments, e.g. ICT infrastructure and skills, could help firms reap the benefits from digitalisation (Corrado et al., 2021^[103]). As discussed above, certain tax incentives for investment beyond intangibles, can also contribute to supporting productivity increases, not least where they support integration in GVCs, which can support productivity diffusion (Criscuolo and Timmis, 2017^[104]). Beyond targeted provisions, the general corporate tax system can also affect productivity growth (Vartia, 2008^[105]; Hanappi, 2018^[106]). More analysis is required to understand the impact of tax systems on productivity, by considering both baseline CIT provisions and targeted tax provisions.

Productivity growth may be supported by international tax reform that supports an efficient allocation of capital and other productive factors across jurisdictions. Both capital allocation and profit shifting can be key drivers of productivity dynamics across countries. (Bartelsman, Haltiwanger and Scarpetta, 2013^[107]; Baqaee and Farhi, 2020^[108]; Guvenen et al., 2017^[109]; Bricongne, Delpeuch and Lopez Forero, 2021^[110]). Firms with access to tax planning opportunities, e.g. more intangible intensive firms, may respond to tax differentials by shifting profits to jurisdictions where they can obtain a tax advantage (Grubert, 2003^[111]; Heckemeyer and Overesch, 2017^[112]). Recent evidence has also suggested that tax differentials can inhibit the realization of productivity improvements (Todtenhaupt and Voget, 2021^[113]).

Reductions in tax differentials through international tax reforms, such as those being advanced under the two-pillar solution, may therefore support the efficient allocation of capital and productivity growth.

Tax and digitalisation

In addition to work carried out by the Inclusive Framework on BEPS, digitalisation creates challenges and opportunities in other tax areas. Digitalisation enables improvements in the functioning of the tax administration through better use of data, which itself creates opportunities to refine the design of tax systems. The automatic exchange of information for tax purposes between jurisdictions allows countries to revisit the design of their capital income tax system and tax household savings in a more coherent manner. Digitalisation has also created opportunities to broaden the VAT base and improve its functioning notably by introducing reporting and VAT collection responsibilities on foreign online vendors and on digital platforms.

In response to increasing digitalisation and growing needs for revenue, an increasing number of countries are implementing the OECD standards for the effective collection of VAT on online sales of goods, services and digital products. These standards and the recommended solutions for their effective and consistent implementation were included in the 2015 BEPS Action 1 Report and in the detailed implementation guidance that has been developed since then (OECD, 2017^[114]; OECD, 2015^[115]; OECD, 2019^[116]). These rules and mechanisms are particularly relevant given the continuously growing volume of online sales by offshore vendors, made directly to consumers or through the intervention of digital platforms. To date, more than 70 countries, including the overwhelming majority of OECD and G20 countries, have implemented reform in accordance with these standards. Recent adopters of these rules and mechanisms include Canada, Chile, Indonesia, Mexico and Singapore. Many other countries are considering similar reforms.

Policymakers also continue to grapple with the implications of rapid developments in virtual currencies and crypto-assets. The nature of these assets pose a number challenges for policymakers due to their lack of centralised control, (pseudo-)anonymity, valuation difficulties and hybrid characteristics (i.e. including both aspects of financial instruments and intangible assets). Other challenges may arise from the swift evolution of their underpinning technology and of virtual currencies themselves, including the greater prevalence of stablecoins and central bank digital currencies (CBDCs).

Tax systems need to be adjusted to address the risks and opportunities posed by crypto-assets. In its October 2020 report to G20 Finance Ministers and Central Bank Governors, the OECD provided guidance to policymakers on a number of areas including on how virtual currencies and other forms of crypto-assets fit within existing tax frameworks and on the definition of the taxable events associated with virtual currencies (OECD, 2020). Particular consideration was suggested for the consistency of the tax treatment of virtual currencies and assets vis-à-vis existing sources of income and wealth, as well as the importance of establishing their taxation within a coherent broader regulatory framework. Formalising a process for regularly reviewing and updating taxation guidance for crypto-assets and currencies was also recommended, given their rapid development, as was communicating the rationale behind the adopted tax treatments to support tax compliance.

The OECD is working to develop a reporting framework to exchange information on crypto-assets, as noted in the [April 2021 communiqué](#) of the G20 Finance Ministers and Central Bank Governors (Italian G20 Presidency, 2021^[117]). This reporting standard will build on and complement the OECD Common Reporting Standards for automatic exchange of financial account information. The objective is to present it to the G20 in 2022.

3.2. Tax policies for equitable societies

Tax policy can play an important role in enhancing equity. Tax policies play a key role in addressing income inequality, along with direct transfers. To a lesser extent, tax policies are also used to address wealth inequality (OECD, 2018^[118]). Beyond their role in narrowing income and wealth gaps, recent work has emphasised the role of tax policy in enhancing intergenerational equity, equality of opportunity (OECD, 2021^[30]), and gender equality (Harding et al., Forthcoming^[119]). Ultimately, tax policies that support greater equity can also contribute to economic growth and political stability (Cingano, 2014^[120]; Alesina and Perotti, 1996^[121]).

With rising public revenue needs and increasing inequalities since the start of the pandemic, taxes on personal capital income and property will likely need to play a bigger role in the future. The crisis has left countries with high budget deficits and significant increases in public debt levels (see Section 2). At the same time, the crisis has exacerbated some existing inequalities and hit many vulnerable households hardest (see Section 2.3). In this context, raising taxes on labour and consumption, as was done in the wake of the 2008 global financial crisis, might be less desirable from an equity and growth perspective and very difficult politically. Thus, the current crisis is prompting reflection on the need to turn to new or under-utilised sources of revenue. Taxes on personal capital income and property are among the taxes that governments are reconsidering (OECD, 2021^[32]) given their potentially significant role in reducing inequality and their currently limited role in most countries' tax mixes (OECD, 2020^[122]).

There has been an increasing focus in particular on the taxation of top income earners and wealth holders (OECD, 2021^[32]). This is partly explained by recent studies showing very low effective tax rates at the top of the income and the wealth distribution, especially with respect to capital gains and foreign source income (Advani and Summers, 2020^[123]; Fairfield and Jorratt De Luis, 2015^[124]; Cooper et al., 2016^[125]; Londoño-Vélez and Ávila-Mahecha, 2021^[36]) and new evidence on the extent of tax arbitrage and income-shifting among owners of closely-held entities (Cooper et al., 2016^[125]; Smith, Pope and Miller, 2019^[126]). Recent analysis has also shed light on tax evasion by wealthy taxpayers (Alstadsæter, Johannesen and Zucman, 2019^[127]). Growing interest in top income and wealth taxation has also been encouraged by recent analysis suggesting that distortions to the real economy from the taxation of personal capital income are relatively limited (Kari, Karikallio and Pirttilä, 2009^[88]; Alstadsæter, Jacob and Michaely, 2017^[89]; Yagan, 2015^[87]) and that tax cuts on wealthy households in recent decades have not had the anticipated growth-enhancing effects (Hope and Limberg, 2020^[128]).

Removing regressive tax expenditures is crucial, but more work is needed to help strengthen the effective taxation of top income earners and wealth holders. Previous OECD work has highlighted the role of tax expenditures in personal income and property taxation, which can have regressive effects and lower effective tax rates for taxpayers at the top-end of the distribution (OECD, 2018^[129]), but further work on the use and prevalence of tax arbitrage and avoidance opportunities is needed. This will require carefully measuring the effective tax burden on households at the top of the income and the wealth distribution, and examining the drivers of lower effective tax rates on top income earners and wealth holders.

Raising top personal income tax rates will have limited effectiveness, if loopholes and arbitrage opportunities continue to allow those with the highest levels of income and wealth to shield their income from personal income tax. Apart from reducing the revenue-raising potential and fairness of existing tax systems, tax arbitrage and avoidance opportunities could render increases of top PIT rates largely ineffective if the income of the wealthy remains beyond the reach of the PIT system. A better understanding of existing tax arbitrage and avoidance opportunities, including those with a cross-border dimension, will be key to identifying reform options that could strengthen the effective taxation of the wealthiest households and ultimately ensure that they pay their fair share of tax.

Importantly, the potential for a more effective taxation of personal capital income and assets has been enhanced by the progress made on international tax transparency. The development of the automatic exchange of information between tax authorities over the last decade has increased the tools available to governments to detect any offshore assets and income and has reduced the opportunities for taxpayers to evade taxes by shifting assets abroad (O'Reilly, Parra Ramirez and Stemmer, 2019^[33]).

Tax systems also need to provide adequate income support and enhance economic opportunities for those at the bottom. Tax measures, in combination with direct transfers, should be used to provide income support to households, which in some cases may need to be reinforced post-pandemic. In addition, tax measures could be used to enhance the longer-term economic opportunities and prospects of low-income and vulnerable groups. For instance, tax measures that encourage employment, labour market participation and upskilling could contribute to reducing unemployment and addressing labour mismatches. Tax support measures should be carefully targeted, however, to contain costs for governments and ensure that they reach their intended targets. Indeed, there is evidence that tax incentives can lead to little additionality and be regressive when they are not targeted (OECD, 2017^[130]). Such measures should therefore focus on those with low incomes and low levels of labour market attachment.

Tax systems can have profound implications for gender equality. Tax policy and social security systems have an important role to play in closing gender gaps, and this not only through a progressive tax system. High tax burdens on second earners can have a significant impact on the incentives for female labour force participation. This, in combination with social norms and a lack of adequate childcare, can lead not only to employment and pay gaps but also pension gaps in the long run. Women also often have lower incomes and less capital wealth than men. The design of public policy, including on tax issues, needs to account for these gender differences and should be reflective of inclusive societies.

Many developing countries have a large degree of informal employment that escapes taxation and regulation. Informal employment makes it difficult to provide sufficient social protection for workers and undermines tax collection efforts, often leading to high tax rates being imposed on those in formal employment or poor-quality government services. Informal markets can also result in unfair competition between sectors and inefficient production methods, and may even encourage illegal migration. Social protection systems in economies with a large informal sector are therefore often relatively ineffective because of contribution evasion by low-risk groups and a lack of coverage for the most disadvantaged working-age population groups.

Particular attention should also be paid to the distributional effects of taxes and the possible need for compensation measures. Assessing the distributional effects of tax measures or reforms is particularly important for taxes that are not linked to income, such as consumption, property and carbon taxes. Correctly assessing distributional effects also requires a careful examination of the final tax incidence of potential reforms as the taxpayers directly paying the tax may not be the ones ultimately bearing the burden of the tax. Compensation mechanisms may also be necessary to offset the distributional and poverty impacts of certain tax reforms on low-income households (e.g. carbon tax rate increases – see Section 3.3).

In the longer run, a priority will be to ensure that tax systems are adapted to future challenges and can continue to deliver on their equity objectives. Indeed, structural trends that are shaping the future, including automation and digitalisation, could make it more difficult for tax systems to achieve their equity objectives if reforms are not undertaken.

Automation could contribute to increasing inequalities and affect tax systems. With automation, new and more productive jobs are being generated, but many existing jobs will disappear and some skills will become obsolete. Skill-biased technological change has already led to growing wage gaps and employment polarisation (Autor, Levy and Murnane, 2003^[131]; Michaels, Natraj and Van Reenen, 2014^[132]). Tax systems could reinforce the speed of automation when taxes on labour exceed taxes on capital. While tax support for automation may help enhance productivity (see Section 2), it could further

reinforce inequality in the future. Automation could also have an impact on tax revenues if labour tax bases are eroded as a result of growing levels of unemployment. This would affect public finance sustainability more widely given countries' high reliance on labour taxes. However, the evidence on the impact of automation on unemployment is mixed (Frey and Osborne, 2017^[133]; Nedelkoska and Quintini, 2018^[134]), so potential impacts on tax revenues remain unclear. Overall, a careful assessment of the links between automation and tax systems is needed to assess potential impacts on productivity, inequality and tax revenues.

Digitalisation is facilitating new forms of work, which present new challenges for taxation. A challenge for the taxation of labour income in an increasingly digitalised economy is the rising share of the workforce earning some or all of their income outside of traditional employee-employer relationships. Indeed, new technologies are facilitating the rise of non-standard or “gig” work, though the share of the population engaged in non-standard work arrangements remains relatively limited (OECD, 2019^[135]). This may create particular challenges for social protection and tax systems in the future. Entitlements to social protection may diminish if individuals' SSC contribution histories become irregular, reducing their entitlements and lowering social protection, for example with respect to unemployment, disability and retirement (OECD, 2015^[136]), which may be particularly problematic given the higher share of vulnerable workers in non-standard jobs (OECD, 2020^[137]). Reduced contributions may also undermine the fiscal sustainability of social insurance systems. In many countries, self-employed workers pay SSCs at lower rates compared to standard employees. Increases in self-employment could therefore lead to substantially lower SSC revenues in the absence of reforms. A greater number of self-employed/gig workers may also be associated with a reduction in SSC and income tax compliance.

Digitalisation is also increasing international taxpayer mobility, which could hinder the functioning of personal tax systems. The mobility of wealthy taxpayers has been a longstanding issue, but digitalisation is exacerbating risks of tax-related migration. Indeed, digitalisation has led to more mobile forms of work, including teleworking as well as new jobs that can be performed from anywhere (e.g. digital nomads), which could in turn enable individuals, particularly wealthy ones, to relocate more easily where taxation is more favourable. However, risks of increased mobility and PIT and SSC base erosion are difficult to assess and will likely vary widely across countries, sectors and types of jobs, and depend on other factors, including how widespread teleworking remains after the pandemic. Risks of increased mobility could nevertheless have significant implications for both tax revenues and equity, given that tax burdens could end up bearing more heavily on less mobile, and typically less wealthy, individuals. Thus, work should be done to assess these risks and start identifying policy options that could help ensure that tax systems are adapted to a world where individuals are increasingly mobile.

3.3. Taxation for a sustainable environment

Limiting the adverse consequences of the major environmental challenges requires deep structural change. Addressing climate change, loss of biodiversity, and air and water pollution now is a policy priority. Curbing climate change involves reducing greenhouse gas (GHG) emissions to net-zero by around the middle of the century. To be on track for that goal, emissions of carbon dioxide (CO₂) and other GHGs must be cut by a quarter to a half below 2019 levels by 2030 to put the world on an emissions pathway consistent with climate stabilisation targets.

Reaching greenhouse gas abatement goals requires a strong and coherent mix of regulations and incentive-based policies. The market failures involved with climate change are many, and responses require a combination of policy instruments. In addition, the political economy of climate policy is challenging and will become more so as ambitions increase. This calls for policy approaches that seek a balance between effectiveness, efficiency and what is publicly acceptable.

Tax policy can create incentives to reduce greenhouse gas emissions through favourable treatment of environmentally appealing technologies or behaviours, and by pricing greenhouse gas emissions. Apart from carbon taxes, emissions trading systems can also result in prices on pollution. If done well, pricing pollution is a strong environment policy principle because prices, from taxes or emissions trading systems, create ongoing incentives for cost-effective reduction of pollution, mobilise private investment, reduce rebound effects, and mobilise government revenues. The choice for taxing or trading is driven by political and administrative factors. Taxes are relatively more straightforward to implement and result in more stable prices. Trading systems tend to be easier politically, particularly in industry and electricity where a relatively small number of large emitters is targeted.

Current carbon prices on the whole fall well short of their potential. The OECD's *Effective Carbon Rates* track, for OECD and G20 countries, the explicit carbon prices from carbon taxes and prices of tradable emission permits and the implicit carbon prices resulting from fuel excise taxes (OECD, 2021^[138]). The main findings are that around 60% of energy-related CO₂ emissions are not priced at all, either via a carbon tax, an ETS or an excise tax. Where there are prices, they are often low and they differ strongly across countries, sectors, fuels and emitters. Rates are lowest in the industry and electricity sectors, and are further weakened by fossil fuel support and where free permit allocation rules provide an advantage to carbon-intensive technologies. While the level of increased policy action needed varies from country to country, depending upon their level of ambition, energy mixes, and different starting points, the IMF estimates that reaching the emissions abatement objectives defined in nationally determined contributions requires measures equivalent to explicit carbon price increases of around USD 75/tCO₂ or more by 2030 in the majority of G20 countries.

Tax and fiscal policy has a key role to play in shaping the distributional impact of environment policy, through the design of the environmental taxes themselves or – usually better – accompanying policies (targeted or broad transfers, selective PIT and CIT cuts, etc.). For this reason, deciding on the use of revenues from environmental taxes should be an integral element of the policy design challenge.

Environmental taxes can be regressive, but even when they are not they can still have disproportionate effects on vulnerable groups. In high-income economies, road fuel taxes tend to affect middle-income deciles more strongly than those with the lowest and highest incomes; taxes on heating fuels tend to be roughly proportional; and electricity taxes tend to be regressive. In lower income economies, road fuel taxes tend to be progressive given prevailing car ownership patterns, but by the same token, they may reduce accessibility to car ownership. Even a progressive tax can increase poverty risk for certain vulnerable groups. Evidence from selected OECD countries suggests that it takes about one third of the revenue from a tax increase on domestic energy use to avoid worsening energy affordability. In low income countries, reducing subsidies can result in strongly increased poverty risk, and this has induced governments to maintain subsidies for fuels used particularly by the poorest, e.g. kerosene. Removing these subsidies could increase poverty and push households towards informal fuels, with potentially worse impacts on health and the environment.

Transfers or other flanking tax reforms can make reforms progressive and increase energy affordability, but there is evidence that this may not always suffice to change perceptions, particularly where trust in government is low. Offering alternatives for highly taxed consumption patterns has strong potential to improve public support. Examples include situations where public transport is not a viable alternative to car use, while low-carbon cars are expensive and charging infrastructure is limited; or where investment in better insulation and more efficient heating systems are out of reach in response to higher heating costs. Using revenues from higher taxes to make alternatives more affordable is an option worth considering. In addition, given long lead times for some investments, gradual tax increases may be preferable.

Concerns about competitiveness, carbon leakage and free-riding make it difficult to advance with carbon pricing in trade exposed and energy-intensive industries. Existing measures to address competitiveness and leakage impacts of carbon pricing (e.g., free allowance allocations) become less effective with deeper decarbonisation. Pressure for border carbon adjustments (BCAs) to address competitiveness and leakage concerns is emerging with greater dispersion in explicit carbon prices across jurisdictions for carbon-intensive and trade-exposed sectors. International co-ordination, for example over minimum carbon prices, is potentially effective, though co-ordination needs to be equitable (accounting for countries differentiated responsibilities and respective capabilities) and pragmatic (recognising national circumstances), meaning also that it needs to take a broader view of mitigation efforts, going beyond explicit carbon prices from carbon taxes and emissions trading systems, considering in addition implicit carbon prices from a variety of mitigation policies.

There is a need for improved measurement of different mitigation policy instruments and approaches. At the G20 High Level Tax Symposium held in Venice on 9 July 2020, Ministers observed a relative dearth of comparable data on the stringency of greenhouse gas mitigation policies across countries where these take the form of implicit carbon prices. Explicit carbon prices are relatively well mapped and understood, but in order to achieve a more complete picture of the state of mitigation policies for the purposes of cross-country comparisons, a stocktake of mitigation policies other than through explicit pricing instruments is needed, and where possible their implicit carbon-price equivalent estimated.

The G20 is well placed to ensure the coherence of mitigation policies differentiated across countries, taking into account that the ultimate collective goal of net-zero emissions can only be reached with patterns and speed of adjustment that align with country-specific circumstances. Developing and sharing metrics and indicators on policy approaches is a pre-requisite to paving the way for common approaches at the international level. Assessing the relative merits of different responses to negative international spillovers – ranging from “carbon border adjustment mechanisms” to “carbon pricing floor agreements” and broader “climate clubs” – will help to strengthen co-operation with a view towards reaching our common climate goals.

3.4. Tax policy challenges faced by developing countries

In April 2021, the G20 reaffirmed its engagement to support developing jurisdictions in strengthening the capacity to build sustainable tax revenue bases. The COVID-19 pandemic has had a huge impact on the health of both people and economies, with developing countries hit the hardest. For developing countries with limited fiscal space and heavy debt burdens, balancing the need to provide income support and collect revenue to finance spending has been extremely challenging.

This report provides valuable context, as the need to focus on domestic resource mobilisation is particularly acute in developing countries where tax revenues were already low as a share of GDP prior to the COVID-19 crisis. Many developing countries need to raise more tax revenues to finance the sustainable development goals (SDGs). Improving tax policy so that it is aligned to SDG financing strategies is an increasing priority for many countries to ensure vital public goods, such as skills development and education, health and infrastructure are properly funded and so that social protection is available to all citizens. As the Addis Action Agenda underlines, tax revenues are the only viable source for the financing of the vast majority of public goods and will be essential for the realisation of the SDGs. This is reflected in many developing countries’ medium- and long-term strategies for financing the SDGs.

Developing countries often have large informal sectors that narrow the tax base and put tax revenues under pressure. While informality is a multidimensional phenomenon, tax policy together with social protection and labour market policy can have both direct and indirect effects on its reduction. High levels of informality can create a vicious circle of high tax rates paid by formal sector workers and businesses, creating incentives for them to operate partially or fully in the informal sector, and in turn

increasing the need for governments to raise statutory tax rates further. Developing countries therefore typically face narrow tax bases and high tax rates, which reduces the tax revenues available to finance public good provision. Significant opportunities exist to improve the design of simplified and presumptive tax regimes that can induce informal businesses and workers to enter the formal sector and formal businesses to continue growing in the regular economy.

Investment tax incentives may reduce tax revenues and thus limit efforts to mobilise domestic resources and progress towards the SDGs. Forgone revenue resulting from tax incentives is of particular concern when the incentives do not attract additional investment, and rather result in windfall gains to investors for projects that would have taken place in the absence of the incentives. Reforms to improve tax incentive design and limit the use of wasteful and redundant tax incentives is therefore crucial⁶.

COVID-19 has thrown into sharp relief the need for tax systems to support the financing of robust and responsive health systems in developing countries, particularly in times of crisis. Health financing presents a range of challenges including the design and use of SSCs and the role of taxation to encourage healthier behaviour. In many developing countries, public expenditure on health is comparatively low as a share of GDP, necessitating a high share of private expenditures on health-care, which can be both regressive and inequitable, leaving many without adequate healthcare. Restricted public financing also limits the ability of the health system to develop capacity to respond to increasing healthcare needs in the community. Improving health financing through the tax system requires careful consideration of the design and use of health SSCs, through broadening the contribution base, ensuring adequate rates, and promoting formal labour force participation. Improving the design of taxes with strong links to the health sector can also contribute to the financing of health systems, such as on products that are harmful to health such as tobacco and alcohol consumption. Environmentally related taxes that help reduce pollution can also play an important role in boosting public revenues as well as reducing harmful product consumption; as can other health related taxes, such as taxes on sugar, which are increasingly being considered.

Significant scope exists to strengthen the functioning and design of VAT systems in developing countries. In particular, reform to increase the efficiency and the revenue-raising capacity of VAT systems could be considered by reducing the significant number of VAT exemptions and reduced VAT rates that exist in many developing economies. Strong e-commerce growth is also creating increasingly important challenges for VAT regimes in developing countries. The main VAT challenges relate to the strong growth in online sales of services and digital products to private consumers (such as "apps", music and movie streaming, gaming, ride-hailing, etc.) and to the exponential growth in online sales of low-value imported goods, often by foreign sellers, on which VAT is not collected effectively under existing rules. To support developing economies wishing to implement the OECD standards for addressing the VAT challenges of digital trade, the OECD together with the World Bank Group and other partner organisations is developing VAT Digital Toolkits that provide detailed guidance for the implementation of a comprehensive VAT strategy directed at e-commerce. These Toolkits are based on the internationally agreed OECD policy framework and draws on the expertise and best practices from jurisdictions that have already successfully implemented these standards.

Developing countries are increasingly vocal that greening the tax system and addressing the challenges posed by climate change are a priority for future global tax policy discussions. Developing countries that are reliant on fossil fuels will need to urgently design strategic policies to navigate the energy transition and to intensify investments into economic sectors that will deliver sustainable economic growth and tax revenue. This includes eliminating wasteful fossil fuel subsidies and increasing

⁶ The OECD is currently undertaking work to improve transparency and analysis on investment tax incentives in developing and emerging economies (Celani, Dressler and Wermelinger, Forthcoming^[149]).

environmentally related taxes and carbon pricing through carbon taxes or emissions trading systems. These measures will need to be accompanied by policies to ensure energy affordability.

Many developing countries also have opportunities to improve the design and implementation of personal income and property taxes. Broadening the base of personal income taxes and strengthening the overall progressivity of these taxes will be an important part of the tax policy debate in developing countries over the coming years. The potential for more effective taxation of capital incomes in developing countries has also been enhanced by the implementation of the automatic exchange of taxpayer information.

Developing countries should prioritise to abolish and redesign poorly targeted and ineffective tax expenditures. Many developing countries have narrow tax bases as a result of a wide range of special tax provisions. These provisions are often not well designed nor targeted, and are often beneficial to households and firms that need the support the least. As well as improving the equity of the tax system, broadening the tax base and improving the design of tax expenditures will be important to improve tax revenues. A crucial step in this process is developing an annual tax expenditure report that lists all tax expenditures and calculates their tax revenue foregone and, possibly, their distributional implications. Such a tax expenditure report should be made publicly available, as this increased transparency will lead to better-informed tax policy decision making.

4 Further observations

The cumulative effects of the COVID-19 pandemic, with its resulting high levels of public debt and the range of structural trends identified in this report have created a very challenging environment for governments and policymakers around the world. As illustrated throughout this report, tackling these challenges will require a wide range of tax, spending and governance reforms in order to finance necessary investments and subsidies, and incentivise behavioural change through influencing prices and effective regulation. As the challenges are multi-dimensional, reforms will need to be similarly multi-faceted.

The options for public finances will depend heavily on country-specific circumstances. The optimal combination of fiscal instruments will vary significantly depending on a range of factors. These include GDP growth, level of development, inequalities and fiscal space; current levels and structures of taxation and spending; the nature of the specific long-term structural trends and challenges it faces, including previous actions taken to mitigate their impact; as well as the country's institutional setting and the preferences and perceptions of its citizens.

The optimal mix of fiscal instruments that countries apply will therefore also need to be country-specific. For instance, countries at an earlier stage of economic development may have a lower tax-to-GDP ratio and less developed social safety nets, requiring policies that broaden tax bases to raise more tax revenues. Equally, countries face different demographic challenges and will vary in their preparedness to respond to the challenges that an ageing population will bring. Many OECD countries are facing considerable upwards pressure on pension, health care and long-term care spending, whereas demography may have a more favourable effect on public finances in some emerging and developing economies.

While tax policy will be crucial, it should not be considered in isolation and both the levels and quality of government spending matters for inclusive growth. Higher spending quality, improved fiscal frameworks and stronger public institutions that deliver value for money receive more support from citizens. It may indirectly also strengthen tax morale and the willingness to pay tax. They may also result in smaller aversion to tax reform and, possibly, will reduce the behavioural response to higher taxes.

Efforts to improve public service delivery and the strength of public institutions may be aided by some of the structural trends highlighted in the report. Tax administrations, for instance, have used digitalisation as an opportunity to increase their digital service delivery, which has proven to be valuable for tax administrations and taxpayers during the COVID-19 crisis as governments' introduced thousands of emergency tax measures. Tax administrations are increasingly using larger and more integrated data sets, and applying analytical tools and techniques to improve risk management and design-in compliance. Artificial intelligence and machine learning are also increasingly supporting tax administration processes and services, and using cutting-edge techniques to exploit data in ways that free up tax administration resources to be deployed to other areas. These developments will not only improve the functioning of the tax administration, but may also pave the way for tax policy reform that builds on these administrative advances.

Timing, risks and uncertainties

Timing will be an integral factor to consider when designing public finance strategies. Most countries have entered a recovery phase following the COVID-19 crisis, and targeted support measures might be warranted to support the strengthening of economies. While it is important that countries not withdraw support and implement measures to restore their public finances too soon and jeopardise the recovery, countries cannot continue such widespread support indefinitely. At some point, when recovery is well advanced, countries will need to begin the transition towards restoring their fiscal positions.

The role of uncertainty will be particularly important in sustainability discussions, especially in defining the scope of the tax and spending measures that need to be taken. Despite the general increase in sovereign debt, governments' interest payments as a share of GDP declined, owing to the concurring fall in interest rates. Low interest rates reduce current concerns about debt sustainability but high debt levels make public finances sensitive to a number of negative shocks. As the practical usefulness of models focusing on the debt ratio for assessing debt sustainability has been questioned and predicting sovereign crises proved difficult, there has been an increasing focus on qualitative assessment of fiscal policy and the importance of effective and resilient fiscal frameworks. Economic, socio-demographic and political uncertainties imply that no single fiscal indicator or target is sufficient for a rigorous assessment of sustainability; instead, a range of indicators is likely needed (Debrun et al., 2019^[139]) that also considers sustainable finance in a context of environmental challenges, rising inequalities and populist developments in some countries. A reassessment of what constitutes a fiscal risk in a post COVID-19 environment, and the concepts associated with comprehensive fiscal risk management frameworks and institutional oversight would therefore be valuable (OECD, 2020^[140]).

Political economy of tax reform is crucial

The emergence of new priorities and long-term structural challenges requires many countries to go beyond marginal changes to current tax and spending practices. Countries will need to mobilise a wide range of policy levers including revised fiscal frameworks, changes in budgeting rules, revisiting spending priorities and tax reforms. A step-increase in domestic resource mobilisation will be needed in developing countries in particular.

Significant changes will require good policy design, effective communication and consensus-building if political acceptance is to be secured. Building political support for reform will require improvements in the policy design and implementation processes, including by embedding wide-ranging public engagement in the reform process and improving communications strategies. Presenting a range of policy measures within overall reform packages could help improve inclusiveness and fairness, and ultimately, the political acceptability of the reforms. A key element for ensuring broad acceptance of new fiscal strategies will be visible improvements in the effectiveness and fairness of tax and spending systems. For example, addressing tax avoidance and closing tax loopholes will help build confidence in the system and boost tax morale and compliance.

The externalities of public finance choices make international dialogue and co-ordination imperative to counter structural challenges. This need is heightened by sluggish productivity growth and excess global savings that amplify fiscal spillovers (Eggertsson, Mehrotra and Summers, 2016^[141]). These factors are particularly evident in international discussions on the taxation of cross-border digital activities (OECD, 2020^[142]; OECD, 2020^[143]), the agreements required to tackle climate change, and for the co-ordination of pandemic responses.

Attitudes towards taxation matter for tax design

The attitudes of citizens towards taxes will have an impact on how tax systems can be designed. There is a growing literature that incorporates insights from behavioural economics into the tax policy field,

which policymakers should draw upon when reforming tax systems. For example, experiences have shown that psychological biases imply that the implementation of otherwise equivalent tax incentives may result in meaningfully different responses to reforms (Taubinsky and Rees-Jones, 2017^[144]). Other research in this field has analysed the interactions between individuals' beliefs and preferences, and how these affect attitudes towards tax policies – policymakers thus need to account for tendencies towards “tax aversion” and how they can be overcome when designing tax reforms (Douenne and Fabre, Forthcoming^[145]). Similarly, the way that reforms are labelled and communicated can help support their political acceptance (Kessler and Norton, 2016^[146]).

Citizens' opinions about the tax system and tax policy reforms will depend on the information available to them to make assessments over its effectiveness. The social values and norms that are dominant in a country as well as the personal preferences of individuals will determine how citizens evaluate and form opinions regarding the effectiveness of tax systems and proposed tax policy reforms. These attitudes are directly linked to the trust individuals have in their institutions and the integrity of the tax system, and contribute to social cohesion. Providing access to credible and easy-to-understand information on how tax systems work will be essential for democratic debate and informed decision making of citizens.

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OECD Secretary-General Tax Report to G20 Finance Ministers and Central Bank Governors

Italy, October 2021

This report provides an update on the G20's international tax agenda, including work on addressing the tax challenges arising from the digitalisation of the economy following the meeting of the OECD/G20 Inclusive Framework on BEPS on 8 October 2021; summarises three reports requested under the Italian G20 Presidency on *Tax Policy and Climate Change* (prepared with the IMF), *Developing Countries and the OECD/G20 Inclusive Framework on BEPS*, and *Tax and Fiscal Policies after the COVID-19 Crisis*; and includes an update on recent developments in tax transparency and the work on base erosion and profit shifting.



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