TAX CHALLENGES ARISING FROM THE DIGITALISATION OF THE ECONOMY

ECONOMIC IMPACT ASSESSMENT

Online Conference organised by the Tax Foundation and the European Tax Policy Forum (ETPF), 2 November 2020

David Bradbury, Stéphane Sorbe, Tibor Hanappi (OECD)
• **OECD Secretariat report**: released on 12 October 2020

  – **Mandated by the Programme of Work**, but not subject to approval by the Inclusive Framework (IF).

  – **Presents global results and results for jurisdiction groups.** No jurisdiction-specific data or results are included.

  – **Utilised a flexible framework underpinned by extensive data work, with a focus on assisting IF members** understand the implications of various design decisions.

  – **Involved extensive engagement with stakeholders**, including delegates from IF jurisdictions and other key stakeholders.
**Overview of main findings**

*Caveat:* This ‘ex ante’ assessment is based on illustrative assumptions on Pillar One and Pillar Two design and parameters. The underlying data have limitations and the assessment relies on a number of simplifying assumptions. In particular, the underlying data pre-date important recent developments, most notably the 2017 US tax reform and the COVID-19 crisis.

- **Pillar One & Pillar Two** could increase global corporate income tax (CIT) revenues by about USD 50-80 billion per year. The combined effect of the reforms and the US GILTI could represent USD 60-100 billion per year (i.e. up to around 4% of global CIT revenues).

- **The reforms would lead to a more favourable environment for investment and growth** than would likely be the case in the absence of a consensus-based solution.

- **In the absence of consensus, there would likely be a proliferation of unilateral tax measures (e.g. digital service taxes) and an increase in tax and trade disputes**, which could reduce global GDP more than 1% in the worst case scenario.

- **The COVID-19 crisis is likely to accelerate the trend towards the digitalisation of the economy and exacerbate the tax challenges arising from digitalisation** in the absence of an agreement by the Inclusive Framework.
EFFECT OF THE PROPOSALS ON TAX REVENUES
Taxing rights on about USD 100 billion of profit could be reallocated under Pillar One

Note: These estimates assume illustratively a global revenue threshold of EUR 750 million and focus only on MNE groups with a primary activity in the ADS and CFB sectors.
Global estimated revenue effects of Pillar Two

Note: These estimates assume illustratively a 12.5% minimum tax rate and a 10% carve-out on payroll and tangible asset depreciation. Consistent with the assumption that GILTI would coexist with Pillar Two, the estimates in these figures exclude revenues gains related to MNEs with an ultimate parent in the United States.
Combined revenue effects of Pillar One and Pillar Two
By jurisdiction groups

Note: These estimates are based on illustrative assumptions on the design and parameters of Pillar One and Pillar Two. The United States is excluded from the group of high income jurisdictions in the Pillar Two panel, reflecting the illustrative assumption that the US GILTI would co-exist with Pillar Two. Estimates for “investment hubs” are not included in these figures as they involve more uncertainty due notably to heterogeneity among investment hubs.
EFFECT OF THE PROPOSALS ON INVESTMENT AND ECONOMIC ACTIVITY
Main findings on investment effects

• Both pillars would lead to a relatively small increase in MNE investment costs
  – The negative effect on global investment would be less than 0.1% of GDP, as the proposals would mostly affect highly profitable MNEs whose investment is less sensitive to taxes
  – The effect could be lower if MNE groups reallocate investment in response to cost increases

• Pillar One and Pillar Two could support global investment and growth through indirect channels that are significant, although less quantifiable by:
  – Increasing the relevance of non-tax factors and improving global capital allocation
  – Increasing tax certainty and reducing the need to raise revenues through other (potentially more distortive) tax measures

• In the absence of consensus, there would likely be a proliferation of unilateral tax measures (e.g. digital service taxes) and an increase in tax and trade disputes, which could reduce global GDP by more than 1% in the worst case scenario
The consensus & no-consensus scenarios

Stylised scenarios: estimated effect on global GDP

* The proposals would also have positive impacts on GDP through indirect channels (e.g. increased tax certainty, reduced need to increase other distortive taxes) which are not quantified in this figure.
IMPLICATIONS OF THE COVID-19 CRISIS
Implications of the COVID-19 crisis

- The full impact of the COVID-19 crisis remains highly uncertain at this stage.

- The COVID-19 crisis is likely to reduce the expected revenue gains from both pillars, at least in the short run, as the crisis weighs on the profitability of many MNEs.
  - Although some digital-intensive MNEs have sustained or increased their profitability.

- The COVID-19 crisis has accelerated the trend towards the digitalisation of the economy.
  - This highlights the importance of the reforms and will likely increase the relative importance of ADS in the scope of Pillar One.

- Accelerated digitalisation, fiscal pressures and growing public dissatisfaction with tax avoidance are likely to reinforce the prospect of further unilateral tax measures in the absence of a consensus-based solution.
ANNEX
References


- **Additional background**, including Pillar One and Pillar Two Blueprint reports: [https://www.oecd.org/tax/beps/beps-actions/action1/](https://www.oecd.org/tax/beps/beps-actions/action1/)
Main caveats

• An ‘ex ante’ assessment based on illustrative assumptions on the design and parameters of Pillar One and Pillar Two. Results will ultimately depend on design and parameters to be decided by the IF.

• The methodology relies on a number of simplifying assumptions, for example on the design and the way MNEs and governments may react.

• The data underlying the analysis is the best available to the Secretariat, but they have limitations in terms of coverage, consistency and timeliness.
  – Combines various data sources: covering more than 200 jurisdictions and 27,000 MNE groups and has used four novel data “matrices”
  – Primarily 2016-17 data: pre-dating the implementation of the OECD/G20 BEPS project, the US Tax Cuts and Jobs Act and most importantly the COVID-19 crisis
Simplified formula to assess the effect of Pillar One on tax revenues

\[
\text{Tax revenue change in jurisd. A} = (\text{Global residual profit in scope} \times \text{Reallocation percentage}) \times (\text{Share of destination-based sales in Jurisd. A} \times \text{Tax rate applied by jurisd. A on received profit}) \times (\text{Share of residual profit in Jurisd. A} \times \text{Rate of double tax relief in jurisd. A})
\]

Global numbers common to all jurisdictions

Jurisdiction-specific numbers

Note: See Chapter 2 of the report for more details
Simplified formula to assess the effect of Pillar Two on tax revenues

Revenue gain for Jurisd. A = Global low-taxed profit × Effect of substance-based carve-out × (Minimum tax rate - Current effective rate on low-taxed profit) × Share of revenues from minimum tax accruing to Jurisd. A

Note: See Chapter 3 of the report for more details
The intermediate results on MNE profit shifting are broadly consistent with the economic literature

<table>
<thead>
<tr>
<th>Estimated amount of shifted MNE profit at the global level</th>
<th>Baseline estimate ('normal' profitability: 7.9%)</th>
<th>Robustness check ('normal' profitability: 5%)</th>
<th>Robustness check ('normal' profitability: 10%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In USD bn</td>
<td>727</td>
<td>837</td>
<td>662</td>
</tr>
<tr>
<td>In % of global MNE profit</td>
<td>11.3%</td>
<td>13.5%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Share of shifted profits in total observed profit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In zero-tax “profit destination” jurisdictions</td>
<td>90.8%</td>
<td>94.1%</td>
<td>88.5%</td>
</tr>
<tr>
<td>In other “profit destination” jurisdictions</td>
<td>61.7%</td>
<td>73.7%</td>
<td>54.7%</td>
</tr>
</tbody>
</table>

Note: See Chapter 3 of the report for more details on the methodology to assess profit shifting.
The impact assessment mobilises a large variety of data sources

<table>
<thead>
<tr>
<th>Firm-level data</th>
<th>Orbis database (consolidated and unconsolidated accounts), Worldscope</th>
<th>Level of residual profit under Pillar One Location of profit and economic activity Relationship between firm-level and aggregated data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregated data on MNE activity</td>
<td>Anonymised and aggregated CbCR data, AMNE/FATS, Analytical AMNE, FDI data</td>
<td>Location of CFB destination-based sales Location of profit and economic activity</td>
</tr>
<tr>
<td>Statutory and effective tax rates</td>
<td>OECD Corporate Tax Statistics, estimates from Torslov et al. (2018), CbCR data, US BEA data</td>
<td>Revenue effect of the reallocation of taxing rights under Pillar One Location and amount of profit subject to Pillar Two</td>
</tr>
<tr>
<td>Macroeconomic and other jurisdiction-level data</td>
<td>GDP, GDP per capita, consumption, trade openness, number of internet users, remittances</td>
<td>Extrapolations when other data are missing Distribution of ADS sales (internet users)</td>
</tr>
</tbody>
</table>
Data “matrices” to map the economic activity of MNEs underlie the impact assessment

- Data on MNE activity is combined in “matrices” to obtain a global geographic coverage.
- Four matrices have been constructed: profit, turnover, tangible assets, and payroll.
- Different sources have different coverage.
- Extrapolations are used when no hard data is available.
- Extensive benchmarking has been done when multiple sources are available for a cell.

<table>
<thead>
<tr>
<th>Jurisdiction of ultimate parent entity (UPE)</th>
<th>US</th>
<th>France</th>
<th>Nigeria</th>
<th>Bahamas</th>
<th>... (&gt;200 jurisd.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>Profit of US MNEs in the US</td>
<td>Profit of French MNEs in the US</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>France</td>
<td>Profit of US MNEs in France</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Profit of US MNEs in Nigeria</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Bahamas</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>... (&gt;200 jurisd.)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Source No 1: Aggregate CbCR data
Source No 2: ORBIS unconsolidated financial account data
Source No 3: Extrapolation based on macro sources, including FDI data
The analysis builds on the forward-looking effective tax rates framework and incorporates:
- The profit shifting behaviour of MNEs
- An stylised version of Pillar One (Amount A) and Pillar Two

Covering over 70 jurisdictions, the model is calibrated to account for the location of MNE activities and assets across jurisdictions.

The effect of Pillar One and Pillar Two is assessed by comparing average and marginal ETRs pre- and post-reform.

Effects on the global GDP-weighted EATR (0.3 pp) and EMTR (1.4 pp) would be relatively small.

Changes in Effective Marginal Tax Rates due to Pillar One and Pillar Two (percentage points)

Source: Hanappi and González Cabral (2020)
Firm sensitivity to corporate tax depends on profitability at the MNE group level

- Higher corporate taxes tend to have a negative effect on MNE investment, however, tax sensitivity varies across MNE groups.

- New OECD analysis suggests that highly profitable MNE groups are less sensitive to corporate taxation: relying on a panel of MNE entities in 17 OECD countries (using data from ORBIS).

- Various channels can explain this result:
  - Liquidity constraints
  - Market power and economic rents
  - Tax planning behaviour

Change in investment rate after a 1 percentage point increase in EMTR (percentage points)

![Bar chart showing the change in investment rate after a 1 percentage point increase in EMTR for different profitability levels.](chart.jpg)

- Investment of non-profitable and highly profitable firms tends to be less affected by effective tax rates.

Profitability at the MNE group-level (PBT / Turnover)

- Significant at the 5% level

Source: Millot et al. (2020)
• **Fiscal space**: revenue increases support public finances, which is especially important for domestic resource mobilisation in developing countries

• **Tax competition**: a lower intensity of tax competition between jurisdictions would further support public finances in the longer term

• **Tax incentives for innovation**: effectiveness of tax incentives could be affected, but less so if there is a substance-based carve-out, and policy mixes may need to be adapted

• **Tax incentives for development**: the bargaining position of developing countries wanting to reduce costly and potentially inefficient tax incentives could be strengthened

• **Compliance costs**: likely to be an increase in filing requirements leading to additional costs for MNEs and governments, but will depend on final design and simplification measures

• **Firm competition**: competition dynamics among firms could be affected as taxes on large, profitable and profit-shifting MNEs are increased

Indirect effects: hard to quantify, but could partly (or even fully) offset the effect of cost increases