A 500-billion-dollar decision for the world

Methodology note

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This methodology note accompanies the main report, *A 500-billion-dollar decision for the world: Revenue impacts of global unitary taxation*. It first describes the data and sample used in the analysis (Section 1), then explains the methodology in detail (Section 2). All code and non-confidential data are available in the accompanying replication package.

1 Data and sample

To assess how taxable profits would be reallocated under unitary taxation, we build a dataset at the level of headquarter country, partner country, and year. For each multinational from a given headquarter country, it records where profits are reported, taxes are paid, workers are employed, tangible assets are held, and products are sold, drawing on country by country reporting data published by the OECD in an aggregated form. To this, we add data on the resource-related activity of multinationals, by headquarter, partner, and year, based on EITI, GRD, Orbis, and manually collected country-specific data. Moreover, to adequately capture destination-based sales, we use data from the OECD's Analytical Activity of Multinational Enterprises (AAMNE) database and from the OECD-WTO Balanced Trade in Services (BaTIS) dataset.

The sections that follow describe each data source in turn, along with the steps we took to clean the data and account for misleading or missing observations. All data and scripts used to run these steps can be accessed in the accompanying replication package. An overview of all variables used in the analysis, together with how each is used and its source, is provided in Methodology Appendix A.

1.1 Country by country reporting data

Information on multinationals' economic activity, reported profits, and taxes paid by jurisdiction comes from the OECD's country by country reporting statistics. The data are based on the confidential country by country reports that multinational enterprises (MNEs) headquartered in participating jurisdictions filed with their tax authorities under the OECD/G20 BEPS Action 13 minimum standard between 2016 and 2022. The OECD publishes these data in aggregated form by headquarter jurisdiction, covering 26 headquarter jurisdictions in 2016 and 54 in 2022. In the

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best case, the data reveal the profits booked, taxes paid, employees located, tangible assets owned, and revenues generated in each partner jurisdiction, subject to several limitations discussed below. The data are published separately for profit-making and loss-making multinational groups, which we exploit to calculate effective tax rates (see below).

1.1.1 Correction for dividend double counting

In the earlier years of our sample, the country by country reporting data is likely suffering from some degree of double counting of profits. This mainly reflects ambiguity in the original reporting guidance regarding whether intra-group dividends and related participation income should be included in profit before tax. As a result, profits that had already been reported by one entity of a corporate group could be reported again as dividend or participation income by another. This inflates reported profits in jurisdictions where such treatment was common, and biases estimated effective tax rates downward because the same underlying profits are counted multiple times while the associated taxes are not (Klaassen and Bobeldijk 2019). The problem should be substantially reduced from 2020 onwards, after the OECD/G20 Inclusive Framework clarified in 2019 that dividends from constituent entities should be excluded from profit before tax for reporting periods beginning on or after 1 January 2020 (OECD 2019). We therefore correct profits for dividend double counting in the years from 2016 to 2019 following García-Bernardo, Janský, and Zucman (2026) and García-Bernardo and Janský (2024). Details of the correction are provided in Methodology Appendix C.

1.1.2 Disaggregating aggregate rows (only for robustness checks)

Reporting quality in the country by country data differs substantially across headquarter jurisdictions. Depending on the reporting practices of the headquarter jurisdiction, the OECD data do not always provide a complete country by country breakdown of profits, taxes, employees, tangible assets, and unrelated-party revenues. Some jurisdictions, such as the United Kingdom, report domestic figures alongside aggregated regional categories, while the least detailed reporters, such as Ireland, distinguish only between domestic and foreign activities. Even otherwise detailed reporters often aggregate country-level information in aggregate lines such as "Other Africa" or "Other Europe."

Our main specification excludes these aggregate rows and only uses the information that is actually given on a headquarters-partner country base, to avoid drawing conclusions from rows that are not reported in the data. However, ignoring these aggregate rows excludes a substantial share of reported profits, economic activity, and taxes from the analysis. In addition to our main specification, we therefore disaggregate these aggregated lines in two steps. First, for the real economic variables (employees, unrelated-party sales, and tangible assets), we follow the gravity-based machine-learning approach of García-Bernardo and Janský (2024). Specifically, we train a gradient-boosting model (scikit-learn's histogram-based gradient-boosting regressor) on directly reported headquarters–partner–year observations using a broad set of public trade, investment, and macroeconomic indicators. The resulting predictions are used as weights to split each reporter's aggregated totals across all eligible partner jurisdictions while preserving the reported totals.

Second, reported profits are imputed separately based on the profitability associated with the observed factor endowments of each partner country in the directly reported data. We prefer this approach over imputing profits with our gravity model because an imputation model based on real economic variables can accurately predict profits consistent with underlying economic activity but, by construction, cannot capture profits shifted into or out of a jurisdiction, as such shifting is precisely disconnected from real activity. Including profits in the first-stage imputation would therefore mechanically eliminate the discrepancy between reported profits and economic activity that arises under separate accounting and transfer pricing. Finally, the imputed profits are rescaled so that they sum to each reporter's reported aggregate profit. Methodology Appendix D provides a detailed description of the procedure.

The sample including disaggregated rows provides a more complete picture of the overall revenue effects but comes at the cost of relying heavily on imputed observations. For countries with few directly reported observations, estimated revenue effects may therefore be driven more by imputed than by observed data. Since our primary objective is to estimate country-level revenue effects, our main results rely on the reported-only sample, thereby avoiding potential bias introduced by the imputation procedure. To keep this sample genuinely country-level, we additionally drop any reporting parent-year that books more than half of its foreign unrelated-party revenues in aggregate rows rather than in individual partner jurisdictions. In the country-level results tables, we flag countries whose estimates are based on a limited number of reporting observations.

However, we report estimates based on the disaggregated sample in Methodology Appendix E for comparison. The results mostly replicate our main findings.

1.1.3 Missing headquarter jurisdictions (non-reporters)

A second limitation of the OECD country-by-country statistics is that several important headquarters jurisdictions do not report at all. As shown in Table B4 of Methodology Appendix B, the multinational profits covered by our reported-only and disaggregated samples represent only a fraction of global MNE profit. Specifically, the baseline sample based on directly reported country-level observations covers between 34% and 76% of global MNE profit, while the sample including disaggregated aggregate rows covers between 42% and 89%.

Consequently, our country-level estimates should primarily be interpreted in relative rather than absolute terms. For countries with a decent number of reported data points, they identify whether countries gain or lose taxing rights under unitary taxation and how these changes compare with the multinational profits and corporate tax revenues observed in the same dataset. However, they do not capture the full revenue effects for individual countries.

To approximate the overall global revenue potential, we scale our world estimate up by the ratio of the multinational profit our sample covers to the estimated global universe of multinational profits (Figure 1 of the main report). This adjustment is informative for the global aggregate under the assumption that multinational groups headquartered in non-reporting jurisdictions shift profit in broadly the same way as those headquartered in reporting jurisdictions. We do not apply this scaling to individual countries in our report, however, because non-reporting headquarter jurisdictions are unlikely to display the same geographical patterns of foreign

investment and profit shifting as reporting ones.

1.2 Data on countries' resource rent capture

To correct the profits booked and taxes paid in the country by country data for the part that, in resource-rich countries, represents the government's capture of resource rents rather than ordinary corporate profit, we draw on three data sources: the Extractive Industries Transparency Initiative (EITI), the UNU-WIDER Government Revenue Dataset (GRD), and a manual collection assembled from national budgets, revenue-authority statistics, company financial reports, and international fiscal sources (such as IMF Article IV reports).

Each of the datasets records, for a given source country and commodity, how much resource rent the government captured and through which channels. It distinguishes capture that was recorded as a cost and is therefore already excluded from reported MNE profits (such as royalties and licence fees), from capture paid out of reported profits (resource-related taxes and state-equity participation), which is the part we want to remove from the profit pool before it is redistributed under unitary taxation.

The sources differ in quality and granularity. So where a country is covered by more than one we use them in priority order: EITI first, then the manual collection, then the GRD.

To attribute each source country's resource-rent capture to the headquarter jurisdiction of the multinational that bore it — and hence to the correct headquarter–partner row of the country by country data — we additionally rely on Bureau van Dijk's Orbis company-ownership database. We describe each data source in detail below.

1.2.1 Extractive Industries Transparency Initiative (EITI)

The Extractive Industries Transparency Initiative (EITI) is a global transparency standard, established in 2003 and governed by a coalition of governments, extractive companies and civil society, under which resource-rich member countries publish annual reports on the revenues their oil, gas and mining sectors generate for the state.

The EITI database consists of company-level payments-to-government disclosures, reconciled annually by the resource-rich countries that implement the standard (55 countries). Each record is an individual payment from a named company to a government body, classified by revenue stream: royalties, licence and area fees, and signature and production bonuses (recorded as costs, i.e. pre-profit); corporate income tax and special resource surtaxes (paid out of profits, i.e. post-profit); state-equity and dividend flows; and other. Each payment also carries a commodity group (oil and gas, coal, or minerals) and a year. It is the only source disaggregated down to the individual paying company, which is what makes it possible to trace the capture back to the multinational behind it.

1.2.2 Government Revenue Dataset (GRD)

The UNU-WIDER Government Revenue Dataset (GRD) provides consistent, internationally comparable country-level government-revenue series. For resource-producing countries it reports total resource revenue together with a breakdown by revenue type (taxes on income and profits,

non-tax revenue, and so on). The data are disaggregated by country and year, but not by company and generally not by commodity, so they are coarser than EITI: they show how much a government captured and broadly through which channel, but not from which firm.

1.2.3 Manual data collection (AI-assisted)

For major producers whose national oil companies or fiscal regimes fall outside EITI — most prominently the Gulf oil exporters, Russia, China, and Saudi Arabia — comparable figures exist only scattered across primary fiscal documents. We draw on IMF Article IV staff reports and Fiscal Affairs Department regime notes; national budget documents and revenue-authority statistics; company annual reports and SEC 20-F filings; the OPEC Annual Statistical Bulletin; and the EY, PwC, and Deloitte global oil-and-gas and mining tax guides, to build a country–commodity–year table of resource revenue with each entry split into pre-profit, post-profit, and equity components. We retrieved the documents manually and used AI assistance to extract the relevant figures. Because resource revenue is heavily concentrated in a few large producers, we verified the highest-value entries individually against their sources, checking units and currency conversions, the assignment to the pre-profit, post-profit, or equity channel, and the scope of each line item. We applied automated plausibility checks to all entries, and sampled the remaining smaller entries to confirm the residual error rate was low. The full set of per-country sheets is provided in the replication package.

1.2.4 Company ownership from Orbis

The EITI, GRD and manually compiled datasets tell us how much resource rent each source country captured and, in part, which company paid it. They do not, however, reveal the headquarter jurisdiction of the multinational group behind the payment. For that we use Bureau van Dijk's Orbis company-ownership database, a global database of company financials and ownership that records, for each entity, its global ultimate owner and that owner's country. For countries with EITI data, we match each paying extractive company to its corporate group and headquarter country. For the GRD and the manually collected resource revenue, we instead use Orbis to estimate, for each commodity, the share of a source country's extractive activity owned by firms from each headquarter country, and distribute the country total accordingly. This allows us to allocate a state's total resource-rent capture to the correct headquarter–partner rows of the country by country data, year by year.

1.3 Data used to estimate destination-based sales

The OECD's country by country reporting data attribute revenue from sales to the seller (origin). However, as discussed in Chapter 4 of the main report, a formula should attribute sales revenue to the country where goods or services are consumed or used (destination). To estimate destination-based sales, we rely on two further data sources: the OECD's Analytical AMNE database and the OECD-WTO Balanced Trade in Services (BaTIS) dataset. The methodology through which these sources are combined into destination-based sales is described in Section 2.2.3; the databases are described in the following.

1.3.1 Analytical Activity of Multinational Enterprises database

The Analytical AMNE database combines official statistics on the activities of multinational enterprises with OECD inter-country input-output tables, covering multinational activity by country, industry, ownership type, and year. The 2026 edition covers 80 economies, plus a rest-of-world aggregate, over the period 2008–2023 and distinguishes foreign-owned firms, domestic multinationals, and purely domestic firms. It provides two inputs to our destination measure: the local sales of multinational enterprises across all sectors, and the multinational share of exports in the digitally deliverable service sectors, used to scale remotely supplied digital services to match our sample (details in Section 2.2.3). For jurisdictions and years not covered, we extrapolate the measure as explained in Section 2.2.3.

1.3.2 Data on remotely supplied digital services

The Analytical AMNE database captures turnover generated through firms with a local presence but not demand met remotely through cross-border digital sales. We therefore complement it with the OECD-WTO Balanced Trade in Services (BaTIS) dataset, which provides bilateral services trade by detailed service category, reconciling the asymmetries between reporter and partner statistics into a single balanced series (United Nations et al. 2011). We use the December 2025 edition, covering roughly 200 economies, from which we take each country's imports of digitally deliverable services as defined in Section 2.2.3. Internet penetration, which has been used as a coarser proxy for the location of remote digital demand in earlier work, is discussed, and rejected, in Section 2.2.3.

1.4 Tax rates

1.4.1 Statutory corporate income tax rates

We use statutory corporate income tax (CIT) rates to estimate tax revenues under one of our revenue specifications. These are taken from the OECD Corporate Tax Statistics, supplemented by the Tax Foundation's Corporate Tax Rates Around the World series for jurisdictions not covered by the OECD and a small number of hand-collected rates for territories absent from both sources (available in the replication package).

1.4.2 Resource profit-tax rates

To infer the share of multinational profits that has already been captured through resource taxation, we require the effective rate at which resource-sector profits are taxed in each country. We assemble these rates by country and commodity as the combined headline regime rate (the statutory corporate income tax rate plus any extractive-profit surtax, for example a special petroleum tax or supplementary charge), drawing on the EY, PwC and Deloitte global oil-and-gas and mining tax guides, IMF Fiscal Affairs Department fiscal-regime notes and Article IV staff reports, national fiscal legislation and budget documents, and IGF/IISD mining fiscal-regime materials. Where no resource-specific profit-tax rate is available, we use the statutory corporate income tax rate. All detailed sources are reported in the accompanying replication package.

Because these are headline regime rates, they can exceed the rate a company actually pays once tax holidays, stability agreements and cost-recovery and depreciation allowances are taken into account. Dividing the observed government take by such a rate therefore recovers only a lower bound on the resource-profit base. Where this would leave a large share of resource profit unremoved — and, hence, spuriously reallocated away from the producer — we instead remove resource profit down to the country's estimated resource rent: a best estimate of its resource economic surplus, built in priority order from EITI government-revenue disclosures, energy and mineral production (EIA and the British Geological Survey) valued at reference prices, and, where none of these is available, the World Bank's modelled resource-rent share of GDP.

1.4.3 Effective tax rates

Effective tax rates (ETRs) are constructed directly from the OECD country by country reporting data. We calculate three types of ETR:

Average ETR of foreign multinationals. For each country, we divide the total corporate income tax paid on a cash basis by foreign multinationals by their total positive profit before tax. Foreign multinationals are defined as all multinationals except those headquartered in the country itself, and only subgroups reporting positive profits are included. To reduce year-to-year volatility, we pool taxes and profits over a five-year window centred on year t, covering $t-2$ to $t+2$. The resulting ratio is bounded between zero and one and calculated exclusively from reported, non-imputed observations. Where the relevant rate is unavailable, we first use the country's overall average ETR and then, if necessary, its statutory corporate income tax rate. In our headline specification, this ETR is applied to the profits that a country loses under unitary taxation, namely profits currently reported there by foreign multinationals without a corresponding economic basis, to estimate the associated loss of tax revenue.

ETR of domestic multinationals. For each country, we divide the total corporate income tax paid on a cash basis by domestically headquartered multinationals by their total positive profit before tax, again including only subgroups reporting positive profits. Taxes and profits are pooled over the same five-year window centred on year t, and the resulting ratio is bounded between zero and one and calculated exclusively from reported, non-imputed observations. Where the relevant rate is unavailable, we first use the country's overall average ETR and then, if necessary, its statutory corporate income tax rate. In our headline specification, this ETR is applied to the profits that a headquarters country loses under unitary taxation, namely profits currently reported there by domestically headquartered multinationals without a corresponding economic basis, to estimate the associated loss of tax revenue.

ETRs at the lower end of the distribution. The profits that a country loses under unitary taxation are those currently reported there without a corresponding economic basis. Because profit shifting is strategic, these profits are likely to benefit from the most favourable parts of the country's tax system and therefore to be taxed at a lower rate than profits supported by genuine economic activity. Country-level averages can consequently conceal substantial amounts of very

lightly taxed profit: Hugger, González Cabral, and O'Reilly (2023) show that more than half of global multinational profits taxed below 15 per cent are reported in countries whose overall average ETRs exceed 15 per cent. The aggregate country by country reporting data do not allow us to observe the tax rate applying specifically to shifted profits, as each observed ETR combines potentially shifted profits with profits linked to real economic activity. In our headline specification, we therefore apply the country's overall average ETR to the profits it loses. This is a conservative assumption because it is likely to overstate both the tax currently collected from shifted profits and the resulting revenue loss under unitary taxation. For the upper end of our estimated revenue range, we instead use the 10th percentile of the ETRs calculated for individual headquarters–reporting-country pairs. This captures rates closer to the lower end of the observed distribution, although it is still likely to overstate the rate paid on shifted profits because each headquarters–reporting-country ETR may itself combine very lightly taxed shifted profits with more highly taxed profits supported by genuine economic activity.

When the pooled five-year profit base is negligible (below US$100 million) or non-positive, the resulting ratio is dominated by noise and does not represent a meaningful tax rate. In these cases, we treat the ETR as undefined and use the statutory corporate income tax rate instead. In the resource-adjusted specifications, ETRs are calculated using non-resource profits and taxes only, ensuring consistency between the tax base and the tax rate applied. For the context in which the different ETRs are used, we refer to Section 2.7 and Box 4 of the main report.

1.5 Other data

1.5.1 Global multinational profits

To relate the profits covered by our sample to the global population of large multinationals, we construct a yearly series of their total global profits from the OECD's own estimates. For 2016, we use the global profit matrix of the OECD's Economic Impact Assessment, with total profits of about US$6.2 trillion (OECD 2020); for 2017–2020, we use the yearly totals reported in the OECD's assessment of the global minimum tax, ranging from US$5.5 to 6.2 trillion (Hugger, González Cabral, Bucci, et al. 2024). Both sources cover multinational groups above the EUR 750 million country by country reporting threshold — the population a unitary tax implemented through this reporting would cover — which the OECD estimates to account for more than 90 per cent of all multinational profit. As the OECD series ends in 2020, we extend it to 2021 and 2022 by holding our sample's coverage share constant at its 2020 rate (75 per cent): the number of reporting jurisdictions was essentially unchanged from 2020 onwards, so the growth in covered profits after 2020 reflects profits rather than reporting coverage. The resulting series implies that our sample covers between 34 per cent (2016) and 76 per cent of global large-multinational profits per year.

1.5.2 Salary data

For the formulas that include payroll, we also need salary data, as the country by country reporting data only report employees, not payroll. We take median monthly earnings from the International Labour Organization's (ILO) Wages and Working Time Statistics (ILOSTAT) and

extrapolate years where annual coverage is missing using World Bank consumer-price-index data. We approximate the payroll reported in a jurisdiction by its number of employees multiplied by the median monthly salary in the respective country (annualised over twelve months). We add hand-collected salary data where data is missing or where the values seem unrealistically high or low, probably because of incorrect exchange rate treatments.

1.5.3 Income groups and tax havens

We group countries into income groups based on the World Bank classification. We reclassify a country as a "tax haven" if it scores 65 or above on the Tax Justice Network's Corporate Tax Haven Index (CTHI) Haven Score and, in at least two years, attracts more corporate profit under the current system than its real economic activity would predict. To this we add the tax havens identified by García-Bernardo and Janský (2024) and García-Bernardo, Janský, and Zucman (2026) — the same list we use to correct the profit data (see the tax-haven list in Methodology Appendix C). Three jurisdictions enter without a CTHI score: Puerto Rico and Barbados, which the García-Bernardo lists classify as profit centres, and the British Indian Ocean Territory, which we keep on substance grounds. The grouping is presentational only and does not affect the estimates.

1.5.4 Gravity model (only for robustness checks)

For the gravity model used to disaggregate poorly-reported country-by-country reporting aggregates, we rely on a set of public country and country-pair indicators, following García-Bernardo and Janský (2024) and using their public feature set (their proprietary LinkedIn-derived variables and two commercial snapshots are excluded): World Bank World Development and Worldwide Governance Indicators (GDP, population, consumption, investment, trade, FDI, IP flows, external-debt stocks, health and education spending, and governance); the IMF Coordinated Direct and Portfolio Investment Surveys; and the CEPII Gravity database (distance, contiguity, common language, colonial ties, trade agreements, and bilateral trade flows). Full details are given in Methodology Appendix D.

1.6 Sample

Our final sample consists of 58 reporting jurisdictions, 226 partner jurisdictions and covers 2016–2022. Methodology Appendix B summarises sample coverage under the reported, disaggregated and scaled specifications.

2 Methodology

To estimate the revenue effects of unitary taxation, we proceed in five steps. First, we adjust reported multinational profits for countries' existing resource-rent capture. Second, we pool the remaining taxable profits at the level of each headquarter jurisdiction and allocate this consolidated profit pool across partner jurisdictions according to the chosen formulary apportionment rule. Third, we compare the resulting allocation with the current distribution of reported

profits. Fourth, we convert the changes in taxable profits into changes in tax revenues using the country's tax rates. Finally, we estimate the temporary reduction in tax revenues resulting from cross-border loss consolidation under unitary taxation. Throughout, we index the headquarter jurisdiction by i, the partner jurisdiction by j, and the year by t.

2.1 Accounting for resource rent capture

2.1.1 Existing resource-rent capture

To prevent unitary taxation from reallocating profits over which a resource-producing country already exercises resource rights, we remove the relevant extractive profits from the multinational profits reported in the country by country reporting data (see Box 3 in the main report). We do so with two alternative approaches, depending on the data quality.

Payment-based approach. For countries for which we have enough details on resource-related payments made to the government based on EITI, GRD, or manual sources, we use these payments to infer extractive profits.

Only resource-rent capture that overlaps with the reported profit pool requires an adjustment. Royalties, licence fees and similar payments are generally deducted as costs before corporate profits are calculated. They are therefore already excluded from reported profits and do not need to be removed again.

By contrast, resource claims paid out of profits overlap with the profits reported in the country by country reporting data. We capture two such mechanisms. First, governments may impose profit-based resource taxes on extractive activities. Second, governments may receive a share of extractive profits through state equity participation. Where both mechanisms apply, they often relate to the same underlying extraction profits: profits are first subject to the applicable resource-tax regime, after which the state may receive dividends on its share of the remaining profits. Adding the two estimates would therefore double-count part of the underlying profit. We consequently use the larger of the two estimates as the amount of resource-related profit to be removed.

For profit-based resource taxes, we infer the underlying extraction profit by dividing the observed resource-tax payment by the applicable resource profit-tax rate:

$$\text{profits\_extraction}_{ijt} = \frac{\text{resource\_taxes}_{ijt}}{\text{resource\_taxrate}_{jt}} \tag{1}$$

For state equity participation, we use the state's reported income from equity participation in the extractive sector directly, $\text{resource\_stateequity}_{ijt}$. The corrected non-resource profit is then:

$$\text{profits\_corrected}_{ijt} = \text{profits\_reported}_{ijt} - \max\Big(\text{profits\_extraction}_{ijt},\ \text{resource\_stateequity}_{ijt}\Big) \tag{2}$$

The corresponding resource-tax payments are removed from the tax column at the same time. We then recalculate the effective tax rate using the corrected profit and tax amounts (after extractive profits and resource taxes have been removed), ensuring that the tax base and the tax rate used in the subsequent analysis are consistent (Section 1.4.3).

Tax mismatch approach. We apply the described direct payment-based approach where the underlying observations are sufficiently well documented. Where the available payment data are less reliable, or where no direct payment observation is available for a producing country, we instead infer the resource-related profit from the difference between reported taxes and the taxes that would be expected under the ordinary statutory corporate income tax rate.

For this alternative, coarser adjustment, we first calculate the amount by which reported taxes exceed the statutory corporate income tax that would apply to total reported profits:

$$\text{excess\_tax}_{ijt} = \max\Big(0,\ \text{total\_taxes}_{ijt} - \text{nonresource\_taxrate}_{jt} \times \text{profits\_reported}_{ijt}\Big) \quad (3)$$

Where the applicable resource profit-tax rate exceeds the statutory corporate income tax rate, the corresponding resource-related profit is inferred as:

$$\text{profits\_extraction}_{ijt} = \min\left(\text{profits\_reported}_{ijt},\ \frac{\text{excess\_tax}_{ijt}}{\text{resource\_taxrate}_{jt} - \text{nonresource\_taxrate}_{jt}}\right) \quad (4)$$

This calculation attributes the above-statutory part of reported taxation to the higher rate applying to extraction profits. The inferred resource-related profit is capped at total reported profit. We remove this profit from total reported profits and the associated excess tax from total tax payments, so that the effective tax rate on the remaining non-resource profit equals the statutory corporate income tax rate.

For resource-dominated economies whose profit has been corrected with the payment-based approach, a residual non-resource effective tax rate that still exceeds the statutory rate after the adjustments above is read as evidence of resource taxation that was understated in our sources. In these cases we remove enough further profit and tax to bring the effective tax rate on the remaining non-resource profit down to the statutory rate.

Both approaches to estimate extractive profits rely on resource-related tax rates. However, the documented headline rate often overstates what a company actually pays because of tax holidays, stability agreements and cost-recovery and depreciation allowances. Dividing the government take by that rate in the payment-based approach and using the excess tax in the tax mismatch approach then underestimates resource profits and removes too little resource profit in the correction. For a small set of producers where this leaves an implausibly large share of resource profit in the reported pool (Equatorial Guinea, Papua New Guinea and Malaysia), we therefore remove further profit down to an independent estimate of the resource rent — the country's physical resource production valued at reference prices (energy from the EIA, minerals from the British Geological Survey), scaled by a commodity-specific rent fraction.

2.1.2 Minimum royalty specification

Capturing resource rents in an adequate quantity is not only a right, but also a responsibility of source countries. Because some countries currently capture very little of their resource rents (or the data underestimates their capture), we therefore simulate, in an additional specification, a minimum level of resource-rent capture that each producing country could reasonably secure. We model this minimum on the variable-royalty proposal of IGF and ATAF (2022).

The rationale behind the proposal is that royalties, being levied on the gross value of production rather than on profits, provide governments with a robust revenue stream that is less vulnerable to profit shifting and cost inflation than profit-based taxes. Allowing the royalty rate to vary with commodity prices or profitability preserves this robustness while avoiding the rigidity of a fixed royalty, enabling governments to capture a larger share of resource rents when prices are high without unduly burdening mining companies when prices are low.

We follow IGF and ATAF (2022)'s Category 1 schedule in which the rate is keyed to the commodity price: it rises with the price between a floor and a cap, so windfall rents in high-price years are taxed more heavily than output in low-price years.

We implement this separately for each commodity. For each commodity c and year t the variable royalty rate (royalty_rate) increases linearly from 1% at the historical minimum commodity price (minrate) to 10% at the historical maximum price (maxrate):

$$\text{royalty\_rate}_{ct} = \text{minrate} + (\text{maxrate} - \text{minrate}) \times \text{pricelevel}_{ct} \tag{5}$$

where

$$\text{pricelevel}_{ct} = \text{clip}\left(\frac{\text{price}_{ct} - \text{price}_{c}^{\min}}{\text{price}_{c}^{\max} - \text{price}_{c}^{\min}},\ 0,\ 1\right) \tag{6}$$

The implied minimum royalty (min_royalty) for source country j is obtained by applying this rate to the gross resource revenue of each commodity:

$$\text{min\_royalty}_{jt} = \sum_{c} \text{royalty\_rate}_{ct} \times \text{gross\_revenue}_{cjt} \tag{7}$$

This minimum royalty is understood as a minimum level of resource-rent capture and we calculate it for the aggregate of multinationals from all headquarter countries to even out headquarter-year specific variations in payments. We compare this minimum level with the country's actual resource-rent capture (actual_resource_capture), using the largest complete recorded figure available from the payments-panel take, the full EITI company-payment total, or (only where the panel year is itself extrapolated) the GRD total resource revenue, aggregated across all commodities and headquarter countries. Where actual capture already meets the minimum, nothing changes. Where total actual capture is smaller than the minimum, the shortfall is the additional royalty the floor (floor_addon) would compel:

$$\text{floor\_addon}_{jt} = \max\Big(\text{min\_royalty}_{jt} - \text{actual\_resource\_capture}_{jt},\ 0\Big) \tag{8}$$

This add-on is computed at the country level — aggregated over commodities and headquarters — even though, in practice, a minimum royalty would bind per producer and commodity. We aggregate it here to smooth over the inaccuracies in the underlying resource data and the missing country by country rows. Because a royalty is levied on resource production specifically, we then allocate the country-level add-on back onto the country's reported country by country cells in proportion to each cell's resource-related profit (the resource profit identified in Section 2.1.1), so that the deduction falls on resource activity rather than on the reporting multinationals' unrelated business. Where a country's reported cells carry no resource profit in a given year, we

fall back to allocating by reported revenue.

Because a royalty is a pre-profit payment, this additional royalty reduces the pool of profits available for formulary apportionment. Under the minimum-royalty specification, the profit that will enter the unitary taxation profit pool per headquarter–source country becomes

$$\text{profits\_floored}_{ijt} = \text{profits\_corrected}_{ijt} - \text{floor\_addon}_{ijt} \tag{9}$$

We apply this specification only to resource-dependent developing countries and exclude higher income resource producers, for which introducing a minimum royalty is neither necessary nor the intended policy target.

2.2 Formula apportionment and destination-based sales

2.2.1 Profit pooling

For each headquarter country i, we sum corrected non-resource profits across all partner jurisdictions J in year t. The resulting profit pool is floored at zero: if the corrected worldwide profit of multinationals headquartered in i is non-positive, no profit is reapportioned and partner jurisdictions retain the reported allocation.

$$\text{ut\_profit\_pool}_{it} = \max\left(\sum_{j \in J} \text{profits\_corrected}_{jt},\ 0\right) \tag{10}$$

2.2.2 Apportionment of taxable profits

Each partner jurisdiction j receives a share of the headquarters profit pool, proxying its share of economic activity by an apportionment formula. For each factor f, we first express partner j's value as a share of the corresponding headquarters total. We then calculate the apportionment share as

$$\text{share\_economic\_activity}_{ijt} = \sum_{f} w_f \frac{\text{factor}_{f,ijt}}{\sum_{j \in J} \text{factor}_{f,ijt}}, \quad f \in \{\text{employees, sales, assets, payroll}\} \tag{11}$$

Assets refer to tangible assets and sales refer to destination-based sales. Taxable profits allocated to each headquarters–partner pair are then

$$\text{ut\_profits}_{ijt} = \text{share\_economic\_activity}_{ijt} \times \text{ut\_profit\_pool}_{it}. \tag{12}$$

2.2.3 Estimating destination-based sales

Most formulas include a sales factor. In our preferred policy, the formula allocates sales to the jurisdiction of the final customers (sales by destination) rather than the jurisdiction from which they are booked (sales by origin). However, the country by country reporting data only report sales by origin. Since destination-based sales are not available in other datasets at the required scale, we estimate them based on the OECD's Analytical AMNE database and the OECD-WTO Balanced Trade in Services (BaTIS) dataset. Our destination-based sales measure

for each country is the sum of two components: first, the local sales of multinational enterprises, and second, the share of remotely supplied digital services that is supplied by the firms that are used in the Analytical AMNE and country by country sample, including automated digital services (ADS). We explain the components of our sales measure in the following.

Local sales of multinational enterprises. The first component captures demand served through a local presence. We take the turnover of foreign-owned firms and domestic multinationals across all sectors from the OECD's Analytical AMNE database and subtract these firms' exports, so that only production absorbed by local demand remains. This approach has been used by OECD (2020) and is explained in detail there. However, unlike OECD (2020), we do not restrict this component to consumer-facing sectors. To represent sales by destination in a fair manner, we intend to capture all sectors including business-to-business. A consumer-facing-only variant following OECD (2020, paras. 92–99) is reported for the comparison of different measures on the Unitary Taxation Data Explorer.

As the Analytical AMNE database does not cover all countries, we extrapolate to non-covered jurisdictions by predicting the ratio of multinational local sales to GDP from log GDP, log GDP per capita and trade openness (adjusting for remittance and aid inflows). Very small economies (population below 250,000) for which no value can be estimated are assigned a zero weight (cf. OECD 2020).

Remotely supplied digital services. The first component misses demand served remotely from abroad without a local presence. To capture this channel, we add each country's imports of digitally deliverable services, constructed from the OECD-WTO Balanced Trade in Services (BaTIS) data, following Amaro and Picciotto (2026). The approach follows the IMF, OECD, UNCTAD and WTO (2023) *Handbook on Measuring Digital Trade*: digitally deliverable services are those that can be supplied remotely over information and communication technology (ICT) networks — insurance and pension services, financial services, charges for the use of intellectual property, telecommunications, computer and information services, other business services, and audiovisual and related personal, cultural and recreational services. From this list, we exclude charges for the use of intellectual property, as a significant portion of these are likely to be intra-group royalty payments rather than sales to unrelated customers, which the destination-based sales factor is intended to capture. For the reasons explained by Amaro and Picciotto (2026), we prefer the Handbook's transparently defined aggregate over the series on "digitally delivered" services constructed by the WTO, whose definition sits ambiguously between the broad deliverable concept and narrow automated digital services. Consistent with this ordering, the full Handbook aggregate exceeds the WTO series in every year; our measure, after excluding intellectual-property charges, remains above it until 2019 and slightly below it thereafter.

These data cover all remote digital-services sales, regardless of the size of the selling company. This is, in principle, exactly the volume that would matter under a comprehensive unitary tax — covering all firms that have multinational activity. Our sample, however, does not cover all exporting companies, but only those that file country-by-country reports under OECD BEPS Action 13, that is, multinational groups. Likewise, the first part of our sales measure captures only multinationals, as defined in the Analytical AMNE dataset: firms belonging to a

multinational group, i.e. foreign-controlled affiliates together with domestically-owned enterprises that themselves control affiliates abroad. To capture the two parts our destination-based sales measure combines — the multinationals' market sales drawn from Analytical AMNE and the remote digital-services imports — consistently on the same group of companies, we scale the remote digital sales so that they, too, broadly originate from this group. Concretely, we scale these imports by the multinational share of exports in the corresponding service sectors, computed from the Analytical AMNE database at 53 to 58 per cent per year. Missing importer coverage is extrapolated from log GDP.

Automated digital services. Automated digital services (ADS) — services produced and delivered digitally with minimal human involvement, such as search, social media, cloud services and streaming — require no separate component in our measure. Where they are paid for, they are already contained in the digitally deliverable services imports of the second component, since automated digital services form a subset of the Handbook's deliverable categories. The exception is "free" services funded through advertising or the monetisation of user data: users pay with their attention and their data rather than with money, so no import is ever recorded in the user's country. The corresponding revenue appears instead as exports of advertising services to the advertisers' jurisdictions, and the value of the data collected from users — which is realized when these data are licensed, sold, or used to target customers, for instance for advertising — appears in no trade statistic at all.

Unlike the data for the other factors, the resulting measure of sales to customers is available only at the partner-country–year level, rather than separately for each headquarters-country–partner-country–year combination. In other words, we observe each country's share of sales to customers across all multinationals, but not separately for multinationals headquartered in each individual country. We therefore normalise the measure within each headquarters country to obtain the apportionment weights.

Remaining limitations. Our measure does not capture all demand served remotely without a local presence. Two gaps remain particularly important.

First, "free" automated digital services funded through advertising or the monetisation of user data are not recorded as imports in the users' jurisdictions. Users pay with their attention and data rather than with money. The corresponding revenue is generally recorded as advertising revenue in the advertisers' jurisdictions, while the value of the data collected from users appears in no trade statistic. This omission is particularly relevant because the users of these services are often concentrated in populous lower- and middle-income countries whose measured consumption and service imports are comparatively small. Our measure may therefore understate the destination weight of the jurisdictions whose users generate this value.

Second, goods sold directly to consumers from abroad through cross-border e-commerce appear in goods-import statistics but cannot be distinguished from imports resold through local distributors or used as intermediate inputs, which are already reflected in local turnover. Including aggregate goods imports would therefore risk double counting, while excluding them understates the destination weight of markets served predominantly through direct cross-border e-commerce.

Existing proxies do not adequately resolve these problems. For example, OECD (2020, Chapter 2) allocates automated digital services using internet penetration multiplied by household final consumption. However, this measure is highly correlated with broader country characteristics, particularly GDP, and therefore primarily captures general economic size rather than the location of remote digital demand. We consequently do not add a proxy for these missing components. Instead, these limitations reinforce the case for requiring multinationals to report revenues directly by customer or user location under a unitary taxation reporting standard.

Nexus requirement based on physical presence. A question in the design of destination-based allocation is whether taxing rights should be conditional on a nexus requirement based on physical presence. Under such a requirement, a jurisdiction would receive taxing rights only if the multinational group has a sufficient presence there. Our preferred specification does not impose such a requirement, because this would deny taxing rights to market jurisdictions in which multinational groups make sales but have no local establishment. To illustrate the consequences of imposing nexus we estimate an additional nexus-adjusted specification reported in Figure 9. In this specification, a multinational group is treated as having nexus in partner jurisdiction j only if it has an establishment there, proxied by the presence of at least one subsidiary recorded in Orbis (2022 vintage):

$$\text{nexus\_coverage\_share}_{ijt} = \min\left(\frac{\text{n\_orbis}_{ij}}{\text{n\_cbcr}_{ijt}},\ 1\right) \tag{13}$$

where n_orbis_{ij} denotes the number of in-scope multinational groups with consolidated revenue above EUR 750 million that are headquartered in jurisdiction i and have at least one subsidiary in partner jurisdiction j, and n_cbcr_{ijt} denotes the number of multinational groups recorded in the corresponding country by country reporting cell in year t.

The minimum operator caps the ratio at one, preventing Orbis overcoverage or duplicate group matches from assigning more than full nexus coverage to a cell. In the nexus-adjusted specification, we multiply the destination-based sales share by this nexus coverage share before normalising across partner jurisdictions. This allows us to isolate the effect of introducing a nexus requirement while holding the underlying destination measure constant.

Because a country by country cell is reported only where the group already has a constituent entity, on the reported sample this adjustment operates as a coverage-weighted rescaling of markets in which presence exists rather than a strict presence-versus-absence gate, and the resulting down-weighting partly reflects Orbis's observability of subsidiaries — which is thinner in lower-income and more opaque jurisdictions — as much as genuine differences in establishment.

Where this coverage ratio cannot be computed, the specification falls back to a binary presence rule. A multinational group is always assigned full coverage (one) in its home jurisdiction, where it is present by construction. For imputed cells, which carry no country-by-country group count to serve as the denominator, coverage is set to one where the group has at least one Orbis subsidiary in the partner jurisdiction and to zero otherwise; markets in which the group has no Orbis subsidiary thus receive no taxing rights under the requirement.

2.3 Estimating changes in taxable profits

To estimate whether a country would benefit or lose from unitary taxation, we first calculate the change in taxable profits country j would experience for multinationals headquartered in i:

$$\text{delta\_profits}_{ijt} = \text{ut\_profits}_{ijt} - \text{profits\_corrected}_{ijt} \tag{14}$$

We then aggregate the change in taxable profits, separated between positive values (the profits from multinationals where country j would get allocated more taxable profits under unitary taxation), and negative values (the profits from multinationals where country j would be allocated less profits under unitary taxation). We also calculate the net change in taxable profits, taking together positive and negative values.

$$\text{delta\_taxbase}^{+}_{jt} = \sum_{i \in I} \text{delta\_profits}^{+}_{ijt} \tag{15}$$

$$\text{delta\_taxbase}^{-}_{jt} = \left| \sum_{i \in I} \text{delta\_profits}^{-}_{ijt} \right| \tag{16}$$

$$\text{delta\_taxbase}_{jt} = \sum_{i \in I} \text{delta\_profits}_{ijt} \tag{17}$$

2.4 Estimating changes in tax revenues

To translate the changes in taxable profits estimated in Section 2.3 into changes in tax revenue, we apply the tax rate that is most likely to apply to the profits a country gains or loses under unitary taxation (see Section 1.4 and Box 4 in the main report).

The appropriate rate is not necessarily the same for gains and losses. Profits that a country loses under unitary taxation are profits currently reported there without corresponding economic activity. Because profit shifting is strategic, these profits are likely to benefit from particularly favourable parts of the country's tax system, such as preferential rates, exemptions or special regimes. Ideally, we would therefore apply the tax rate paid specifically on shifted profits.

The aggregate country by country reporting data do not allow us to observe this rate directly. They show the total profits reported and taxes paid by multinationals from each headquarters country, but do not distinguish between lightly taxed shifted profits and profits supported by genuine economic activity. We therefore apply the observed average effective tax rate to profits lost under unitary taxation. As this average also includes more highly taxed profits supported by real economic activity, it is likely to overstate the tax currently collected from shifted profits and therefore also to overstate the corresponding revenue losses.

For profits gained under unitary taxation, the relevant rate is the rate they would have faced had they remained in the country where the underlying economic activity took place. Profit shifting generally takes place because reporting the profits elsewhere reduces the multinational's tax liability. We therefore assume in our headline specification that profits reallocated to a country would have faced its statutory corporate income tax rate.

The headline change in tax revenue is consequently calculated as:

$$\text{delta\_revenue}_{jt} = \text{delta\_taxbase}^{+}_{jt} \times \text{CIT}_{jt} - \text{delta\_taxbase}^{-}_{jt} \times \text{ETR}_{jt} \tag{18}$$

CIT_{jt} is the statutory corporate income tax rate in country j. ETR_{jt} is the effective tax rate applied to profits reported in country j by multinationals headquartered in country i. It is the domestic-multinational ETR for the profits lost that were previously reported by domestic multinationals and the foreign-multinational ETR otherwise, as explained in Section 1.4.3.

The two assumed tax rates for gained and lost taxable profits work in opposite directions. Applying the statutory rate to profits gained may overstate the additional revenue if some reallocated profits would continue to benefit from deductions, incentives or preferential treatment. Applying the average ETR to profits lost, by contrast, is likely to overstate losses because shifted profits probably face rates below the average.

Lower-bound specification. As a conservative robustness check, we also estimate the revenue effects using the observed average ETR for both profits gained and profits lost. This assumes that profits are currently shifted "randomly" and newly gained profits would be taxed exactly the same way that profits that would be allocated away from the country because of lacking real activity are currently taxed.

The change in tax revenue is then calculated as:

$$\text{delta\_revenue\_conservative}_{jt} = \text{delta\_taxbase}_{jt} \times \text{ETR}_{jt} \tag{19}$$

Because this specification applies the average ETR rather than the statutory rate to profits gained, it provides the lower bound of our estimated revenue effects.

Upper-bound specification. We also estimate an upper bound that accounts for the fact that shifted profits are currently concentrated in the least-taxed parts of a country's tax system. As in the headline specification, we apply the statutory corporate income tax rate to profits gained. However, instead of applying the overall average ETR to profits lost, we apply the average ETR of the lowest-taxed 10 per cent of headquarters-country–partner-country combinations.

The change in tax revenue is calculated as:

$$\text{delta\_revenue\_optimistic}_{jt} = \text{delta\_taxbase}^{+}_{jt} \times \text{CIT}_{jt} - \text{delta\_taxbase}^{-}_{jt} \times \text{ETR(p10)}_{jt} \tag{20}$$

Here, ETR(p10)_{jt} is the 10th percentile of the available headquarters-country–partner-country ETRs for country j.

This rate is likely to be closer to the tax treatment of shifted profits than the overall average ETR. It may nevertheless still overstate the rate paid on these profits because each headquarters-country–partner-country ETR is itself an average that may combine lightly taxed shifted profits with more highly taxed profits supported by genuine economic activity.

Our headline estimate lies between these two bounds. It applies the statutory corporate income tax rate to profits gained and the overall average ETR to profits lost. The lower bound applies the average ETR to both gains and losses, while the upper bound applies the statutory rate to gains and the lower-end ETR to losses.

2.5 Revenue lost per dollar collected by tax havens

Tax havens collect relatively little tax on the profits shifted into them, while the countries from which those profits are shifted lose much more revenue. We summarise this relationship in a single ratio: the revenue lost elsewhere for every dollar of tax collected by tax havens on shifted profits.

We calculate the revenue loss using the same profit reallocations as in our main estimates. For each headquarters country, we identify the countries in which its multinationals report less profit than their economic activity would imply. These countries lose tax revenue under the current system because part of their profit is reported elsewhere. We value this missing profit at the relevant tax rate, following the approach described in Section 2.4.

We then attribute this revenue loss to the countries in which the same multinationals report *more* profit than their economic activity would imply. Within each headquarters-country group, each country is assigned responsibility for the share of the misaligned profit it receives. A country receiving half of the shifted profit would, for example, be assigned half of the resulting revenue loss. Summing across headquarters countries and years gives the total revenue loss attributed to each country receiving shifted profits.

We compare the revenue loss attributed to each country with the estimated tax it collects on the excess profit. For the range reported in the main study, we calculate this ratio only for countries classified as tax havens in Section 1.5.3. This excludes the domestic over-reporting of profits in headquarters-bias countries, which reflects a different pattern from profit shifting into tax havens.

The resulting ratio depends on the tax rate assumed to apply to shifted profits in tax havens. We therefore report a range using the same assumptions as in Section 2.4. At the conservative end, we assume that shifted profits face the haven's overall average effective tax rate. This is likely to overstate the tax collected because shifted profits are usually directed towards the most favourable parts of the tax system. We therefore also calculate the ratio using the average effective rate among the lowest-taxed 10% of headquarters-country–partner-country pairs.

2.6 Break-even effective tax rates

Unitary taxation would still allow countries to set low corporate tax rates. However, a low rate would no longer attract profits that are not supported by real economic activity, because the allocation of profits would depend on the formula rather than on where a multinational reports them. Countries could therefore raise the tax rate on the profits allocated to them without creating the same opportunities for those profits to be shifted away through accounting arrangements.

To measure this room for higher taxation, we calculate a break-even effective tax rate for each country that loses revenue under unitary taxation. This is the rate the country would need to apply to the profits allocated to it under unitary taxation in order to maintain its current corporate tax revenue from multinationals:

$$\text{break-even rate}_j = \frac{\text{current multinational tax revenue}_j}{\text{profit allocated under unitary taxation}_j}. \tag{21}$$

Here, current multinational tax revenue$_j$ is the corporate tax that country j currently collects from multinationals, while profit allocated under unitary taxation$_j$ is the profit assigned to it by the apportionment formula described in Section 2.2.2.The estimates use the reported-only sample, our headline measure of sales to customers and all four formula families.

We report the results separately for two groups of countries. For tax havens, the formula allocates substantially less profit than they currently report. Their break-even rate is therefore the rate they would need to apply to this smaller remaining profit base to preserve their current multinational tax revenue.

Headquarters-bias countries lose for a different reason. These are non-haven countries whose own multinationals report an unusually large amount of profit at home relative to their domestic economic activity. Their break-even rate is calculated on the entire profit base allocated to the country under unitary taxation (not only domestic profits), because the tax rate could not in practice be applied only to the portion currently over-reported at home. For comparison, we also report the effective tax rate currently paid on the domestic profits of their own multinationals. The resulting rates are presented in Table 5 of the main report.

2.7 Scaling revenue losses from our sample to global losses

Our estimates cover only the multinationals included in the country by country reporting data with sufficient reporting quality, leaving out the effects of all the multinationals headquartered in a country that is reporting badly or in a country that is not covered by the OECD's country by country database at all (see Methodology Appendix B). To approximate the effects for the full multinational population in Figure 1, we scale the aggregate results for each year by the ratio of global multinational profits from all companies that exceed the EUR 750 million global revenue threshold (described in Section 1.5.1) to the profits covered by our sample in that year. This ratio is calculated using current-price values from the same year and is therefore unaffected by our conversion of the results into constant 2025 US dollars. It ranges from 2.96 in 2016, when reporting coverage was still limited, to 1.34 in 2021. We apply the scaling factor to the net global gains after accounting for the losses of tax havens and other countries that lose.

This scaling assumes that the profits of multinationals outside our sample are misaligned with economic activity to a similar extent as those of the multinationals covered by the data. This is not necessarily true, as multinationals headquartered in other jurisdictions might have their peculiar profit reporting strategies. In the aggregate, it is reasonable to assume that the aggressiveness of profit shifting which determines our aggregate results is comparable. However, the individual country results cannot be scaled up with certainty, so we prefer to interpret the % changes that are only based on our sample for country-level results.

2.8 Estimating the revenue effects of cross-border loss consolidation

Under the current system of separate accounting, a loss in one jurisdiction can normally only be offset against the same group's profits in that jurisdiction, either through loss carry-forward or loss carry-back provisions. Under unitary taxation, by contrast, losses are netted against profits at the level of the multinational group and across jurisdictions before profits are apportioned. As a result, part of the positive profits currently taxed under separate accounting is offset against

losses elsewhere in the multinational group and therefore disappears from the consolidated tax base. This is a desirable feature of unitary taxation, as multinationals should be taxed on their actual consolidated profits rather than on a tax base artificially inflated by the fragmentation of profits and losses across jurisdictions. However, the smaller consolidated tax base may reduce tax revenues and therefore lower the estimated revenue gains from unitary taxation.

The country by country reporting data do not allow us to model this transition dynamically, taking into account existing loss carry-forwards and carry-backs. However, they do allow us to estimate a maximum downward adjustment to the revenue gains from unitary taxation arising from cross-border loss consolidation. The adjustment rests on one simple observation: a jurisdiction does not collect tax on a reported loss, but neither does it refund that loss. (In other words, a negative profit is taxed at zero.) If unitary taxation reallocates additional taxable profits to a jurisdiction that currently reports a loss, the first part of that gain merely offsets the existing loss. Only once the cumulative profit exceeds zero does the jurisdiction begin to collect additional tax revenue. For example, if a jurisdiction currently reports a loss of 100 and receives an additional 120 of taxable profit under unitary taxation, only the final 20 generate additional tax revenue; the first 100 simply eliminate the previously reported loss.

Headquarters–partner pairs in which a country gains taxable profits under unitary taxation ($\text{delta\_taxbase}_{ijt} > 0$) while currently reporting a loss $\left(\text{profits\_corrected}_{ijt} < 0\right)$ therefore generate additional tax revenue only on the part of the gain that exceeds the existing loss. We therefore estimate revenue under the consolidation scenario as

$$\text{revenue\_gains\_consolidated}_{ijt} = \max\Big(\text{delta\_taxbase}_{ijt} - \left(-\text{profits\_corrected}_{ijt}\right),\ 0\Big) \times \text{tax\_rate}_{jt}. \tag{22}$$

The revenue estimate is therefore corrected downward by the part of the gain that merely offsets existing losses.

This correction represents a maximum downward adjustment because it assumes that reported losses have no value under the current system beyond the current year. In practice, many of the losses investigated here would subsequently be carried forward or backward and offset against profits in other years. The consolidation-adjusted revenue estimate should therefore be interpreted as a lower-bound estimate of the revenues that gaining jurisdictions would collect under unitary taxation, and as permanent only to the extent that reported losses are never recovered. We report this estimate separately from our headline results.

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Methodology Appendix A: Variables and data sources

This appendix lists the variables used in the analysis, what each is used for, and its source. Rows are ordered by pipeline stage: the country by country reporting variables, the resource-rent capture inputs, the destination-based sales inputs, tax rates, and other data.

Table A1: Variables used in the analysis, their use, and their source.

Variable	Used for	Source
Country-by-country reporting		
Profit before income tax (incl. OECD adjusted-profit series where available)	Tax base; corrected for dividend double counting (Methodology Appendix C)	OECD aggregate country by country reporting (Corporate Tax Statistics)
Income tax paid (cash basis)	Current corporate tax paid by multinationals; effective tax rates	OECD aggregate country by country reporting
Number of employees	Apportionment factor (headcount)	OECD aggregate country by country reporting
Tangible assets other than cash	Apportionment factor (assets)	OECD aggregate country by country reporting
Unrelated-party revenues	Origin-based sales factor (comparison)	OECD aggregate country by country reporting
Number of multinational groups per cell	Denominator of the nexus coverage share	OECD aggregate country by country reporting
Payroll (employees × average wage)	Apportionment factor (payroll; CC-CTB formula)	Constructed: CbCR employees × ILO wage data
Resource-rent capture		
Company payments to governments (extractives)	Existing resource-rent capture (primary source)	Extractive Industries Transparency Initiative (EITI) summary data
Government resource revenues by stream	Existing resource-rent capture (secondary source)	UNU-WIDER Government Revenue Dataset (GRD)
Manually collected resource payments	Resource-rent capture where EITI/GRD unavailable	Company and government reports; AI-assisted extraction
Company ownership and headquarters	HQ attribution of resource payments; in-scope group universe	Orbis (Bureau van Dijk / Moody's Analytics)
Extractive rents (% of GDP)	Gate for the resource-dominated residual-rate floor	World Bank World Development Indicators
Mineral production volumes and reference prices	Minimum-royalty (variable royalty) base	British Geological Survey; market reference prices
Destination-based sales		
Local sales of multinationals (all sectors; turnover minus exports of foreign-owned firms and domestic MNEs)	Destination-based sales — local component	OECD Analytical AMNE database (MNE-split; 2026 edition)
MNE share of exports in digitally deliverable service sectors	Scaling of digitally deliverable services imports to multinationals	OECD Analytical AMNE database

continued on next page

Table A1 (continued)

Variable	Used for	Source
Imports of digitally deliverable services (EBOPS 2010: SF; SG; SI; SJ; SK1 — excl. SH charges for IP)	Destination-based sales — remote digital component	OECD-WTO Balanced Trade in Services (BaTIS); December 2025 edition
Consumer-facing sector list	Consumer-facing-only robustness variant of destination sales	OECD (2020); applied to Analytical AMNE
Orbis presence of in-scope groups ($\geq$ EUR 750M consolidated revenue)	Nexus coverage share (numerator)	Orbis (Bureau van Dijk / Moody's Analytics)
Tax rates		
Statutory corporate income tax rates	Valuation of revenue gains; ETR fallback	OECD; Tax Foundation; hand-collected additions
Effective tax rates (average; domestic; foreign; 5-year window)	Valuation of revenue losses; break-even rates	Constructed from country by country reporting (Section 1.4.3)
Resource profit-tax rates	Resource-rent capture correction	Hand-collected from legislation and company reports
Other data		
GDP and population	Activity caps; extrapolation of destination measures; imputations	World Bank World Development Indicators; hand-collected small territories
Average wages	Payroll factor construction	ILO Wages and Working Time Statistics; hand-collected additions
Trade openness; remittances; aid inflows	Extrapolation of destination-sales measures	World Bank World Development Indicators
World Bank income classification	Country grouping in figures and tables	World Bank
Corporate Tax Haven Index (haven scores)	Tax-haven classification (presentational)	Tax Justice Network CTHI 2025
Country and country-pair indicators (gravity-model features)	Imputation of activity for aggregated reporting rows (Methodology Appendix D)	World Bank WDI/WGI; CEPII Gravity (incl. bundled trade flows); IMF CDIS/CPIS
Global multinational profits	Scaling of sample results to the global multinational population	OECD (2020) Economic Impact Assessment (2016); OECD WP68 / Hugger et al. (2024) (2017–2020); sample coverage held at the 2020 rate (2021–2022)
US GDP deflator	Conversion of all monetary values to constant 2025 US dollars	World Bank / U.S. Bureau of Economic Analysis

Methodology Appendix B: Country-by-country reporters and quality of reporting over time

The number of headquarter jurisdictions filing aggregated country by country reporting data with the OECD rises from 26 in 2016 to 54 in 2022, but not all provide a full country by country breakdown. Some disaggregate only their domestic activity from a single foreign "rest of world" aggregate; others break foreign activity into continents but not individual countries. We treat these two groups as limited-detail ("bad") reporters and disaggregate their aggregated rows (Methodology Appendix D). Tables B1 to B3 list the reporting detail and the jurisdictions in each category; Table B4 reports the resulting profit coverage used to scale up our results to the global level.

Table B1: Headquarter jurisdictions by reporting detail, 2016–2022.

Year	Reporting jurisdictions (headquarters)	With usable country-level data	Domestic + "rest of world" only	Domestic + continent aggregates only
2016	26	19	4	3
2017	38	28	4	6
2018	46	36	5	5
2019	50	36	5	9
2020	52	39	5	8
2021	52	41	5	6
2022	54	41	8	5

Table B2: Limited-detail reporters by year.

Year	Domestic + "rest of world" only	Domestic + continent aggregates only
2016	Finland, Ireland, Korea, Netherlands	Austria, Norway, Sweden
2017	Finland, Ireland, Korea, Netherlands	Austria, Greece, Isle of Man, Norway, Sweden, United Kingdom
2018	Finland, Hungary, Ireland, Korea, New Zealand	Austria, Greece, Isle of Man, Sweden, United Kingdom
2019	Czechia, Hungary, Ireland, Macau, New Zealand	Austria, Finland, Greece, Korea, Isle of Man, Mauritius, Poland, Sweden, United Kingdom
2020	Czechia, Hungary, Ireland, Macau, New Zealand	Austria, Finland, Korea, Isle of Man, Mauritius, Poland, Sweden, United Kingdom
2021	Czechia, Hungary, Ireland, Morocco, New Zealand	Austria, Finland, Korea, Mauritius, Sweden, United Kingdom
2022	Austria, Bahrain, Finland, Ireland, Korea, Mauritius, Sweden, United Kingdom	Czechia, Hungary, Morocco, New Zealand, Ukraine

Table B3: Reporters with usable country-level data ("good" reporters).

Year	N	Jurisdictions
2016	19	Australia, Belgium, Bermuda, Brazil, Canada, Chile, China, Denmark, France, Indonesia, Italy, Japan, Luxembourg, Mexico, Poland, Singapore, Slovenia, South Africa, United States

Table B3 (continued)

Year	N	Jurisdictions
2017	28	Argentina, Australia, Belgium, Bermuda, Brazil, Canada, Chile, China, Denmark, France, Germany, India, Indonesia, Italy, Japan, Latvia, Luxembourg, Malaysia, Mexico, Peru, Poland, Romania, Singapore, Slovenia, South Africa, Spain, Switzerland, United States
2018	36	Argentina, Australia, Belgium, Bermuda, Brazil, Canada, Cayman Islands, Chile, China, Czechia, Denmark, France, Germany, Hong Kong, India, Indonesia, Italy, Japan, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Netherlands, Norway, Panama, Peru, Poland, Romania, Saudi Arabia, Singapore, Slovenia, South Africa, Spain, Switzerland, United States
2019	36	Argentina, Australia, Belgium, Bermuda, Brazil, Canada, Cayman Islands, Chile, China, Denmark, France, Germany, Hong Kong, India, Indonesia, Italy, Japan, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Netherlands, Norway, Panama, Peru, Portugal, Romania, Saudi Arabia, Singapore, Slovenia, South Africa, Spain, Switzerland, Türkiye, United States
2020	39	Argentina, Australia, Belgium, Bermuda, Brazil, Bulgaria, Canada, Cayman Islands, Chile, China, Denmark, France, Germany, Greece, Hong Kong, India, Indonesia, Italy, Japan, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Netherlands, Norway, Panama, Peru, Portugal, Romania, Saudi Arabia, Singapore, Slovenia, South Africa, Spain, Switzerland, Tunisia, Türkiye, United States
2021	41	Argentina, Australia, Azerbaijan, Bahrain, Belgium, Bermuda, Brazil, Bulgaria, Canada, Cayman Islands, Chile, China, Denmark, France, Germany, Greece, Hong Kong, India, Indonesia, Italy, Japan, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Netherlands, Norway, Panama, Peru, Portugal, Romania, Saudi Arabia, Singapore, Slovenia, South Africa, Spain, Switzerland, Türkiye, United Arab Emirates, United States
2022	41	Argentina, Australia, Azerbaijan, Belgium, Bermuda, Brazil, Bulgaria, Canada, Cayman Islands, Chile, China, Colombia, Denmark, France, Germany, Greece, Hong Kong, India, Indonesia, Italy, Japan, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Netherlands, Norway, Panama, Peru, Portugal, Romania, Saudi Arabia, Singapore, Slovenia, South Africa, Spain, Switzerland, Türkiye, United Arab Emirates, United States

Table B4: Coverage of global MNE profit, 2016–2022.

Year	Global MNE profit (USD tn)	Reported sample (USD tn)	Coverage	Disaggregated sample (USD tn)	Coverage
2016	6.18	2.08	34%	2.59	42%
2017	5.90	3.67	62%	4.58	78%
2018	6.23	4.05	65%	4.99	80%
2019	6.13	4.68	76%	5.46	89%
2020	5.45	4.07	75%	4.44	82%
2021	10.32	7.70	75%	8.78	85%
2022	9.20	6.86	75%	7.77	84%

Profit before income tax, US$ trillions. Global MNE profit is the profit of large multinational groups (consolidated revenue $\geq$ EUR 750M): 2016 from the OECD (2020) Economic Impact Assessment; 2017–2020 from OECD Working Paper No. 68 (Hugger, González Cabral, Bucci, et al. 2024, Figure B.1); 2021–2022 extended by holding sample coverage at its 2020 rate. Coverage is the reported (or disaggregated) sample profit as a share of this global total.

Methodology Appendix C: Correcting country-by-country data for dividend double counting

The OECD country by country reporting data are known to double-count intra-group dividends: profit earned in an affiliate and then distributed up the ownership chain is recorded a second time as profit in the receiving (often haven) jurisdiction. This inflates both the profit booked in tax havens and the global profit total. We remove this double counting following García-Bernardo and Janský (2024), with the US-specific adjustments of García-Bernardo, Janský, and Zucman (2026).

Procedure

The corrections apply to positive reported profit only, in the years 2016–2019 (2016 is treated as 2017); no corrections are applied from 2020 onward. Where the OECD publishes an adjusted-profit series for a reporter (for example the Netherlands and the United Kingdom), that series is used directly and no further manual correction is made.

For domestic profit (where the partner jurisdiction equals the headquarter country), every parent's reported domestic profit is reduced by 35%. This general rate is raised to 50% for Belgium, Singapore and Bermuda, whose domestic effective tax rates sit well below their foreign rates, and set to 0% for Latvia, Slovenia and Luxembourg, whose domestic rates exceed their foreign rates. US-parented groups are treated separately, following García-Bernardo, Janský, and Zucman (2026): their domestic profit is cut by 54% in 2016 and 2017, 74% in 2018 and 42% in 2019.

For foreign profit, non-US parents receive two haircuts: profit booked in a tax-haven partner (list below) is reduced by 10%, and profit booked in an aggregated partner code that may contain havens — the total-foreign and continent residuals (WXD and the "_O" codes) and the single-letter continent aggregates — is reduced by 5%. The 10% figure is the intra-group-dividend share estimated by García-Bernardo and Janský (2024). US-parented groups do not receive these two haircuts; instead their foreign profit is reduced by 7% in 2016 and 2017, 39% in 2018 and 28% in 2019 — the García-Bernardo–Janský–Zucman US-specific adjustment, which removes US double counting on its own.

In every case the associated tax is left unchanged, and all downstream estimates use the cleaned profit series.

Tax-haven list

For the "tax haven correction", we use the list implied in García-Bernardo, Janský, and Zucman (2026) and García-Bernardo and Janský (2024), grouped in eleven "profit centres" — the Bahamas, Bermuda, Barbados, the Cayman Islands, Gibraltar, the Isle of Man, Jersey, Malta, Mauritius, Puerto Rico and the British Virgin Islands — and six "coordination centres" — Switzerland, Hong Kong, Ireland, Luxembourg, the Netherlands and Singapore (17 jurisdictions in total).

In our figures, we use the tax haven list as defined in Section 1.5.3.

Uncertainties

The correction is deliberately simple and carries several caveats. (i) The 10% rate is a single pooled estimate applied uniformly across havens and years, whereas the true dividend share varies by jurisdiction, parent and year. (ii) The haven list is a modelling choice — a broader or narrower list removes more or less profit (we use the García-Bernardo–Janský–Zucman list here for comparability, and a separate, wider list only for the presentational income-group classification). (iii) All corrections are confined to 2016–2019, so any residual double counting in 2020–2022 is left in place; US-parented groups are corrected, but through the García-Bernardo–Janský–Zucman US-specific domestic and foreign adjustments rather than the 10% haven haircut. (iv) The adjustment scales profit proportionally and does not trace individual dividend flows, which the aggregated data do not permit. These choices follow the source studies; a different rate, list or scope can be substituted and the cleaning re-run.

Methodology Appendix D: Gravity-based imputation to disaggregate aggregated rows

Many headquarter jurisdictions do not report a full country by country breakdown of their multinationals' foreign activity. Some report only a domestic figure and a single foreign "rest of world" total; others split foreign activity into continents ("Other Europe", "Other Africa", and so on) rather than individual countries; and even otherwise detailed reporters often collapse smaller partners into regional residuals. Methodology Appendix B lists which reporters fall into each category in each year. For these reporters we redistribute the aggregated foreign rows — the continent residuals (coded E_O, A_O, F_O, S_O and their single-letter variants), the global foreign residual (W_O), and the total-foreign residual (WXD) — onto individual partner countries. Domestic rows (where the partner equals the headquarter country) are never redistributed, and purely redundant summary rows (a continent total that merely equals the sum of the country rows it contains) are dropped first. Stateless-entity rows, which the OECD reports separately and flags as a known source of double counting, are dropped at the cleaning stage rather than redistributed.

Each aggregate is spread across a broad recipient set: every foreign country observed anywhere in the country by country panel that the reporter does not already cover with a directly reported row, rather than only the partners that better reporters happened to name. The redistribution conserves each reporter's reported totals — for every headquarter jurisdiction and year, the disaggregated rows sum back to the reported domestic-plus-foreign aggregate. Imputation therefore reallocates known quantities across markets; it does not add to a reporter's reported profit or activity.

Step 1: Imputing real activity with the gravity model

Within each aggregate, the split of the three real-activity variables — employees, unrelated-party (origin) sales, and tangible assets — across the recipient markets is set by a gravity-style machine-learning model, following García-Bernardo and Janský (2024). For each of the three variables we train a separate gradient-boosting regressor (scikit-learn's `HistGradientBoostingRegressor`) on the logarithm of the directly reported headquarter-partner-year cells, and use it to predict a value for every headquarter-partner pair. These predicted values serve as the weights that distribute the reporter's aggregated total across its eligible markets. The model draws on roughly 120 public country and country-pair indicators — bilateral trade, direct and portfolio investment, geography and ties (distance, contiguity, common language, colonial history, trade agreements), market size and development (GDP, population, consumption, investment, external debt), governance, and health and education spending. We use public sources only; the proprietary LinkedIn-derived variables and two commercial snapshots used in the original paper are omitted and documented in the replication package. On a 60/40 train-test split the out-of-sample fit is comparable to the original study (an R-squared of roughly 0.69 for employees, 0.51 for sales, and 0.53 for tangible assets). Table D1 summarises the feature groups and their sources.

Two guardrails keep the imputed activity plausible for small economies, which a flexible model can otherwise assign implausibly large values. First, each individual prediction is capped

at the larger of (i) ten times the largest value ever directly reported in that market for the variable and (ii) an economic-size ceiling (three times GDP for sales and assets, half the population for employees), so the cap binds only on markets that are small on both counts. Second, after redistribution the total imputed activity a country receives across all reporters is held below an economic-size ceiling — twice GDP for sales and assets, half the population for employees — by iteratively shifting any excess to other markets while preserving each reporter's aggregate. Recognised tax havens are exempt from these ceilings, because activity that is large relative to their domestic economy is genuine for them. The few non-haven micro-states whose imputed activity still looks inflated are flagged in the country-level output, and for those jurisdictions the directly reported sample should be preferred. Payroll, which the country by country data do not report, is derived as imputed employees times the country's median monthly wage, annualised over twelve months.

Step 2: Imputing profit from partner profitability

Profit is not predicted by the gravity model. Instead, each imputed cell's profit is inferred from the profitability that its partner country displays in the directly reported data. For each of the three activity factors we compute the partner country's reported profit per unit of that factor — the sum of its directly reported profit divided by the sum of the corresponding factor, pooled across all reporters and all years — and multiply it by the cell's imputed factor; the cell's imputed profit is the average of the three resulting estimates. The partner yields are used as the data report them, with a single robustness adjustment: across partners, each yield is winsorised at the 1st and 99th percentiles, which clips only the explosive values produced by near-zero reported denominators and leaves every other partner with its own profitability. The adjustment is sign-preserving, so a partner that is loss-making on its reported cells keeps a negative profitability and is assigned a correctly-signed negative imputed profit. Finally, within each reporter-year-aggregate group the imputed profits are rescaled so that they sum back to the reporter's reported aggregate profit, using a sign-robust denominator that prevents near-cancelling positive and negative estimates from blowing up. We do not shrink the partner yields toward a common average; an earlier version that did so was discarded because pulling every yield toward the (positive) global mean turned genuinely loss-making, thinly reported markets into spurious profit centres.

What is and is not imputed

Only the variables needed for the apportionment are imputed on redistributed rows: the three activity factors, the derived payroll, and profit (both the double-counting-corrected and the raw profit series); total revenue is set to the imputed unrelated-party sales, since related-party revenue is not imputed. Every other field — related-party revenue, stated capital, entity counts, the indicator for IP-holding companies, and both income-tax columns — is left blank on imputed rows, as is the bilateral effective tax rate, for which no genuine headquarter-partner observation exists. A conservation check at the end of the disaggregation confirms that, for each reporter and year, the imputed variables sum back to the reported aggregate.

Uncertainty

Because the headline estimates depend on imputed cells, we quantify the resulting uncertainty by bootstrapping the gravity step, as in García-Bernardo and Janský (2024). We draw 100 bootstrap resamples of the training cells, refit the model and re-impute activity and profit on each draw, and propagate every draw through the full estimation. The resulting standard errors and 2.5–97.5 per cent intervals are attached to the headline country-level gains; the point estimates themselves are reported without intervals. As a further check, all results are produced both on the directly reported sample (reported rows only) and on the disaggregated sample, so the contribution of the imputation to any country's result can be read off directly.

Table D1: Gravity-model feature groups and their sources.

Feature group	Examples	Source
Bilateral trade	Imports, exports (totals)	CEPII Gravity database (bundled Comtrade/BACI/IMF trade flows)
Direct investment	Inward and outward FDI positions	IMF CDIS (via World Bank Data360); World Bank WDI
Portfolio investment	Inward and outward portfolio positions	IMF CPIS
Geography and ties	Distance, contiguity, common language, colonial links, trade agreements	CEPII Gravity database
Market size and development	GDP, GDP per capita, population, consumption, investment, trade openness, external debt	World Bank WDI; CEPII
Governance	Worldwide Governance Indicators (first principal component)	World Bank WGI
Public services	Health expenditure, physicians and nurses, education spending	World Bank WDI

Methodology Appendix E: Robustness: main results on the imputed sample

This appendix replicates the main results of the report on the disaggregated (gravity-imputed) sample, in which the aggregated 'rest-of-world' and continental rows of limited-detail reporters are split across individual partner jurisdictions using the gravity/machine-learning imputation described in Methodology Appendix D, rather than being restricted to directly reported rows. The approach is an improved version of García-Bernardo and Janský (2024).

The results should be read alongside the reported-sample results in the main report. The imputed sample achieves fuller country coverage but carries additional uncertainty on the imputed cells; for a small number of micro-states the imputation inflates activity implausibly, and for those jurisdictions the reported-sample figures are preferred. Each figure and table below corresponds to the identically titled exhibit in the main report; the formulas, tax-rate assumptions and reporting conventions are unchanged — only the estimation sample differs.

Unlike in the main report, we report dollar values only, without the accompanying percentage changes. The percentage changes on the reported sample in the main report are the meaningful ones; the dollar values below show how the estimates change when the imputed rows are included.

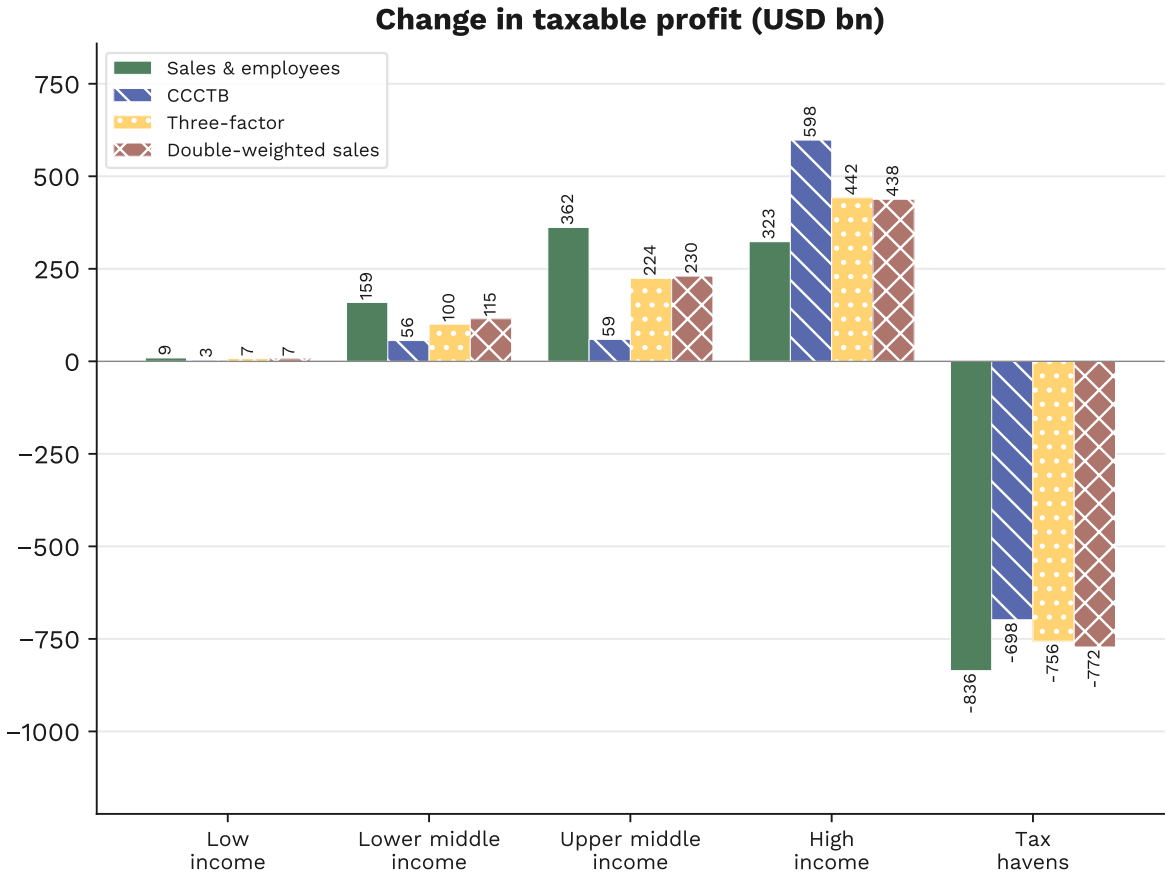

Figure E1: Change in taxable profits under unitary taxation, by income group — imputed sample

Notes: This figure corresponds to Figure 2 of the main report, estimated on the gravity-imputed full sample (directly reported rows plus imputed rows) instead of the reported sample. Resource-related profits are excluded from the unitary taxation profit base. Income groups follow the World Bank classification, with tax havens shown separately. Estimates cover 2016–2022, excluding 2020, in constant 2025 US dollars.

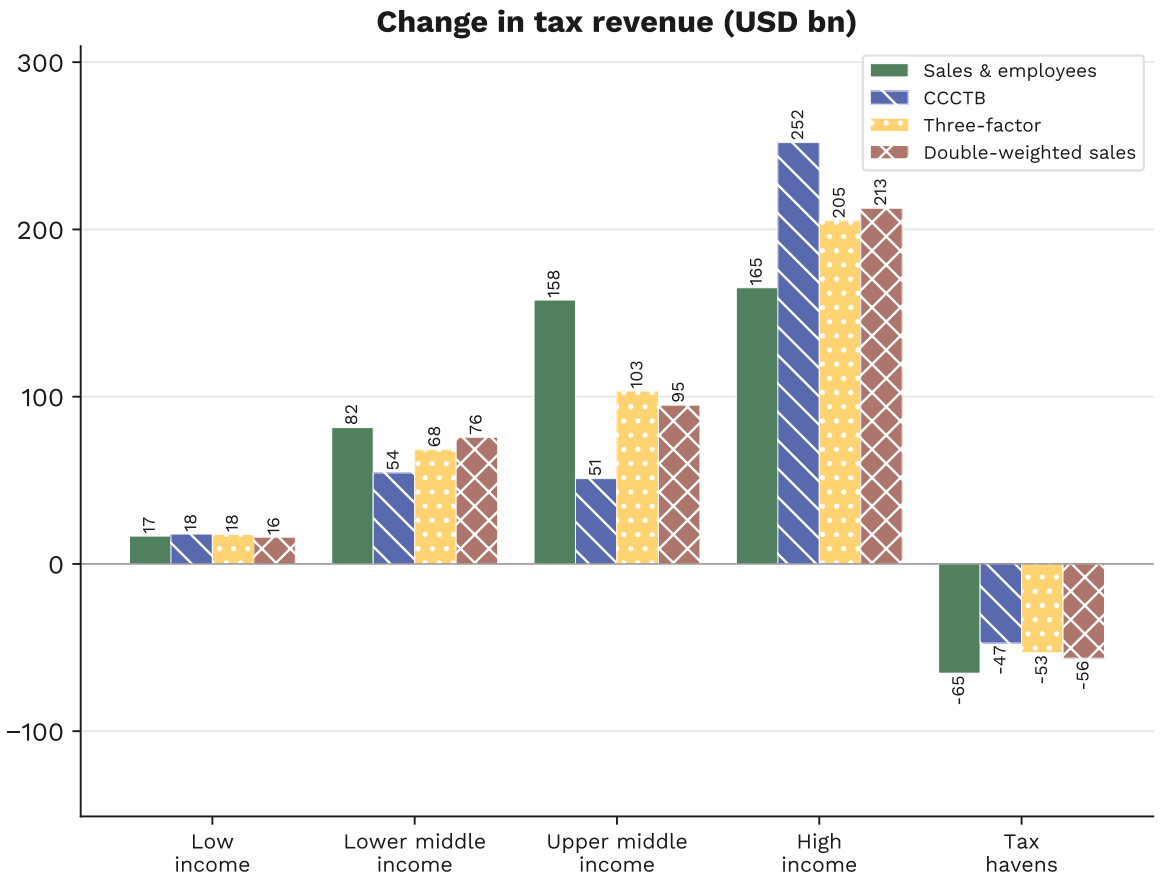

Figure E2: Change in corporate income tax revenue under unitary taxation, by income group — imputed sample

Notes: This figure corresponds to Figure 3 of the main report, estimated on the gravity-imputed full sample instead of the reported sample. Taxable profits gained under unitary taxation are assumed to be taxed at the statutory corporate income tax rate; losses are assumed to have previously been taxed at the country's average effective tax rate, distinguishing between domestic and foreign profits. Estimates cover 2016–2022, excluding 2020, in constant 2025 US dollars.

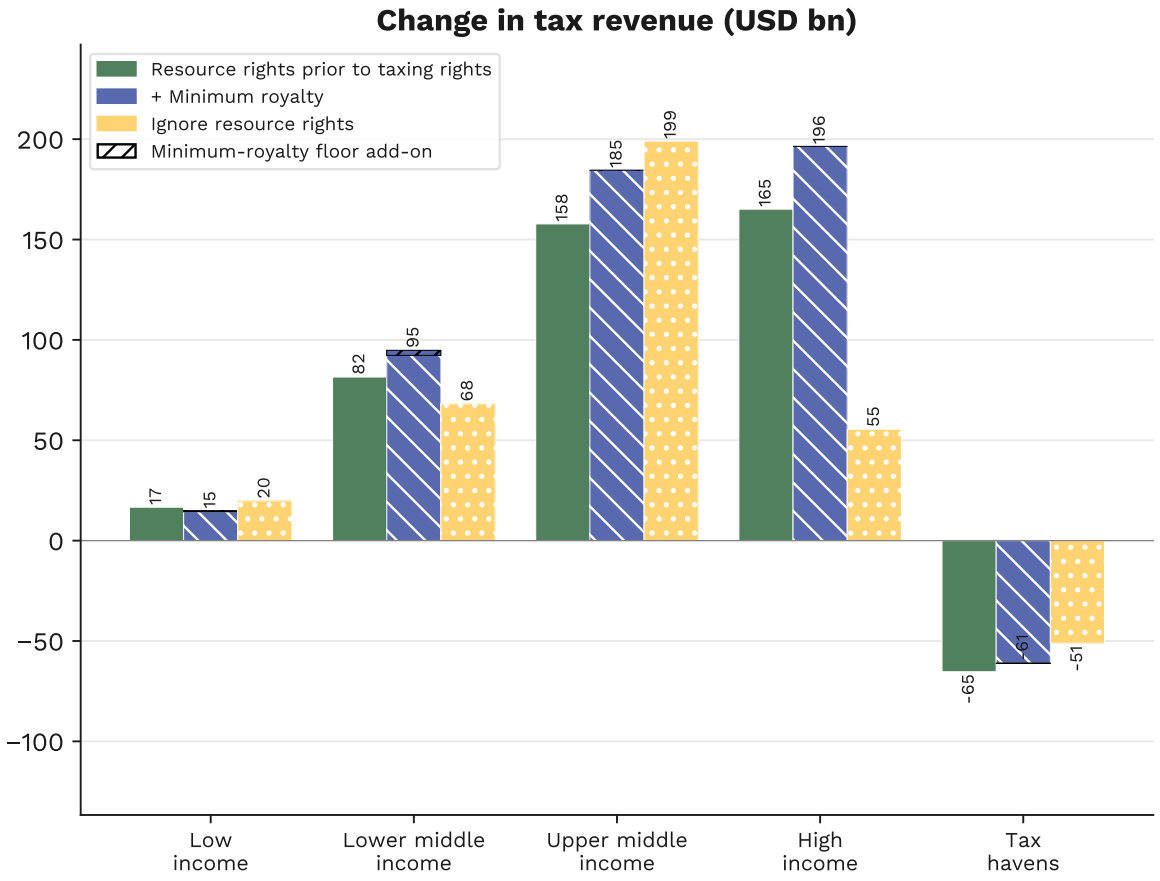

Figure E3: Estimated change in corporate income tax revenue with different resource treatment — imputed sample

Notes: This figure corresponds to Figure 5 of the main report, estimated on the gravity-imputed full sample instead of the reported sample. It reports the estimated changes in tax revenue under unitary taxation by income group, separately for estimation scenarios that treat resource rights prior to taxing rights (the specification of the report), adding a minimum royalty in addition, and ignoring resource rights. Taxable profits are allocated 50% by employees and 50% by destination-based sales. Estimates cover 2016–2022, excluding 2020, in constant 2025 US dollars.

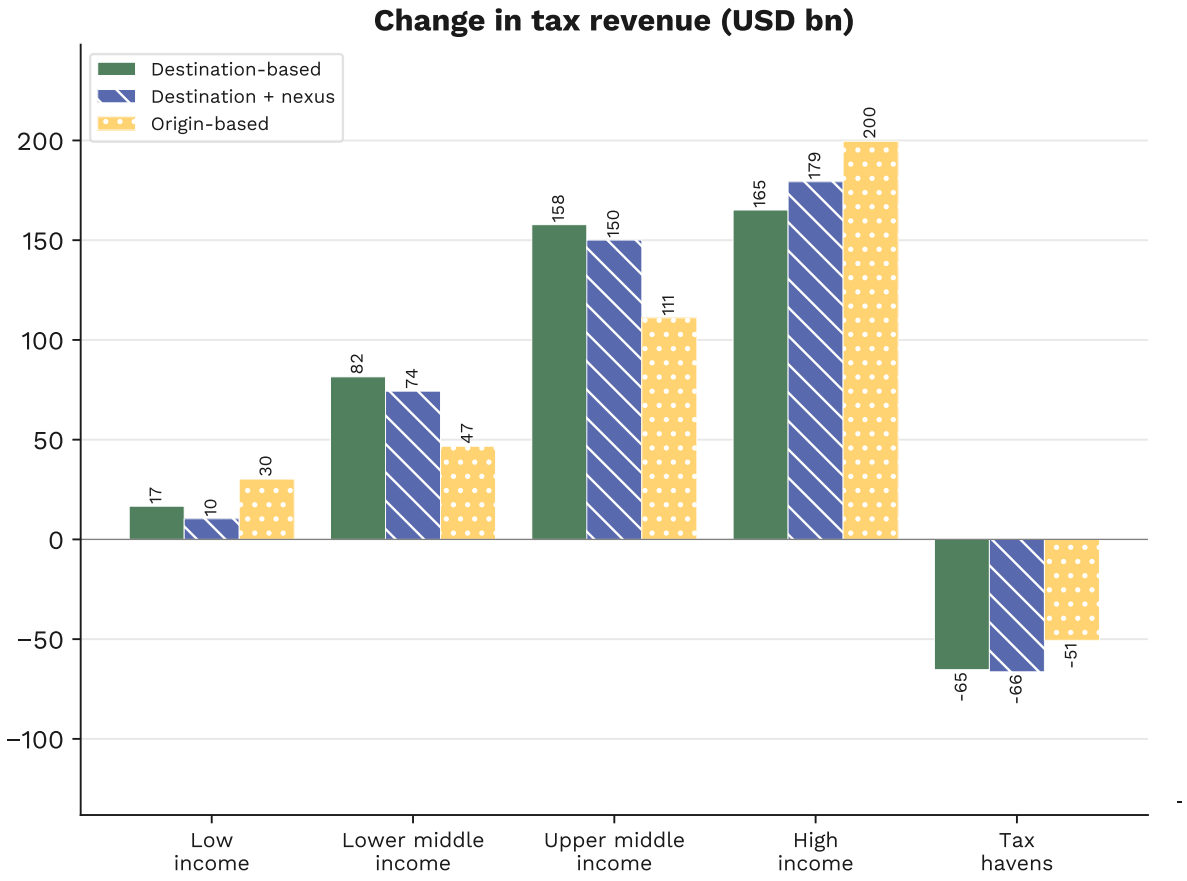

Figure E4: Change in corporate income tax revenues by income group: origin- versus destination-based sales — imputed sample

Notes: This figure corresponds to Figure 9 of the main report, estimated on the gravity-imputed full sample instead of the reported sample. It compares the estimated change in tax revenues by income group under three ways of measuring the sales factor, holding the formula fixed at 50% employees and 50% sales (destination-based, destination with a physical-presence nexus, and origin-based). Estimates cover 2016–2022, excluding 2020, in constant 2025 US dollars.

Table E1: Change in taxable profits under unitary taxation — imputed sample

Notes: This table corresponds to Table 2 of the main report, estimated on the gravity-imputed full sample (directly reported rows plus imputed rows) instead of the reported sample. Resource-related profits are excluded from the profit base; the four apportionment formulas are defined in the report, with sales measured at destination. The final column gives each country's currently reported profits, net of losses, including imputed rows. Monetary values are in millions of constant 2025 US dollars, annual averages over 2016–2022 excluding 2020. Group rows (bold) follow the World Bank income classification, with tax havens shown separately. [2] after a country name: thin coverage — few reported cells, parents or years underlie the estimate; interpret with caution. Percentage changes are not reported on the imputed sample (see the introduction to this appendix).

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Reported profits
	US$ m	US$ m	US$ m	US$ m	US$ m
LOW-INCOME	**9,126**	**3,151**	**7,434**	**6,793**	**13,370**
Afghanistan	980	906	992	1,044	-213
Burkina Faso	-7,861	-8,154	-7,978	-7,997	8,802
Burundi [2]	1,650	1,454	1,559	1,516	-1,248
Central African Republic [2]	623	516	592	552	-346
Chad	-2,005	-1,872	-1,799	-1,839	2,545
DR Congo	-7,116	-6,586	-6,244	-6,505	9,051
Ethiopia	1,178	4	332	784	1,838
Gambia	-1,888	-1,937	-1,875	-1,917	2,118
Guinea-Bissau [2]	245	272	297	273	-140
Madagascar	-3,285	-3,609	-3,458	-3,457	4,039
Malawi	-2,101	-2,487	-2,251	-2,338	3,061
Mali	11,080	10,861	11,008	11,021	-10,160
Mozambique	4,383	4,100	4,398	4,270	-3,037
Niger	-3,192	-3,155	-3,022	-3,104	3,879
North Korea [2]	1,126	163	680	413	468
Rwanda	474	272	389	375	107
Sierra Leone	5,968	5,966	6,054	5,994	-5,573
Somalia [2]	8,527	8,414	8,488	8,492	-8,101
South Sudan [2]	-2,614	-2,690	-2,646	-2,640	2,872
Sudan	6,451	6,142	6,348	6,356	-5,164
Syria	2,954	2,787	2,857	2,957	-2,213
Uganda	578	262	413	531	702
Yemen	-7,028	-8,478	-7,700	-7,988	10,084
LOWER-MIDDLE-INCOME	**158,026**	**54,453**	**98,963**	**113,521**	**150,994**
Angola	-1,673	-1,312	-1,097	-891	4,600
Bangladesh	8,117	4,712	5,344	7,469	1,835
Benin	-923	-980	-903	-894	1,474
Bhutan [2]	-627	-978	-816	-900	1,255
Bolivia	676	497	662	745	1,039
Cambodia	1,334	83	739	316	1,909
Cameroon	1,141	717	860	1,000	88
Comoros [2]	8	-40	-16	-22	87
Congo (Rep.)	3,075	4,267	4,345	4,041	-2,484
Côte d'Ivoire	1,453	641	950	1,169	954
Djibouti	-570	-630	-598	-599	771
Egypt	9,219	4,959	6,674	8,102	4,819
Eswatini	-3,927	-4,042	-3,983	-4,004	4,282
Ghana	110	-36	362	411	3,014
Guinea	-8,781	-8,911	-8,794	-8,806	9,479

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Table E1 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Reported profits
	US$ m	US$ m	US$ m	US$ m	US$ m
Haiti [2]	-910	-1,211	-795	-1,048	2,576
Honduras	2,503	951	1,646	1,439	656
India	112,665	43,225	71,649	79,432	75,193
Kenya	2,541	1,244	1,690	2,100	1,118
Kiribati [2]	113	55	91	70	0
Kosovo	-1,298	-3,758	-2,257	-3,419	7,286
Kyrgyzstan	658	780	872	804	-94
Laos	-2,780	-2,303	-2,107	-2,373	3,724
Lebanon	2,026	1,284	1,423	1,653	-4
Lesotho [2]	-579	-676	-611	-650	880
Mauritania	2,712	2,642	2,705	2,699	-2,336
Morocco	4,934	1,396	3,002	2,849	3,769
Myanmar	2,576	1,455	1,920	2,114	797
Namibia	429	263	349	305	373
Nepal	-2,106	-2,437	-2,324	-2,148	3,322
Nicaragua	3,256	1,264	2,212	1,735	389
Nigeria	9,618	6,684	7,595	10,536	5,864
Pakistan	6,796	2,906	3,936	5,755	4,260
Palestine [2]	4,825	4,502	4,693	4,676	-3,676
Papua New Guinea	913	1,290	1,454	1,332	290
Sao Tome and Principe [2]	2,647	2,651	2,657	2,654	-2,607
Senegal	409	170	337	358	676
Solomon Islands	-301	-463	-358	-425	688
Tajikistan	-477	-745	-592	-632	1,181
Tanzania	1,271	584	854	1,056	930
Timor-Leste	-6,852	-7,266	-6,998	-7,190	7,861
Togo	-2,280	-2,429	-2,334	-2,360	2,731
Tunisia	2,132	837	1,367	1,352	614
Uzbekistan	1,778	1,227	1,329	1,848	536
Vanuatu	652	632	666	636	-504
Zambia	1,351	981	1,221	1,164	140
Zimbabwe	170	-227	-57	65	1,238
UPPER-MIDDLE-INCOME	**351,350**	**48,748**	**213,808**	**219,707**	**1,651,047**
Albania	591	411	481	532	52
Algeria	3,324	2,159	2,500	3,575	2,674
Argentina	13,150	6,984	9,571	11,236	18,177
Armenia	2,184	931	1,494	1,242	175
Azerbaijan	1,295	942	1,025	1,244	723
Belarus	1,547	776	942	1,263	490
Belize	-3,546	-3,519	-3,478	-3,518	3,774
Bosnia and Herzegovina	658	270	400	466	407
Botswana	303	89	168	204	470
Brazil	39,838	10,882	29,096	26,571	108,059
Cabo Verde	-1,973	-1,954	-1,915	-1,954	2,160
China	79,475	-26,758	30,238	45,727	1,137,228
Colombia	12,654	9,163	12,979	11,503	11,282
Cuba	-110	-1,259	-1,007	-521	3,431
Dominica [2]	-116	-135	-98	-132	268
Dominican Republic	3,579	1,310	2,213	2,297	1,952

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Table E1 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Reported profits
	US$ m	US$ m	US$ m	US$ m	US$ m
Ecuador	2,855	1,425	1,952	2,262	1,936
El Salvador	2,222	805	1,437	1,235	851
Equatorial Guinea	-14,503	-14,528	-14,506	-14,463	14,858
Fiji	127	-8	54	45	248
Gabon	-567	-381	-341	-346	1,151
Georgia	716	340	486	532	314
Grenada [2]	-63	-4	20	-15	181
Guatemala	3,302	1,294	2,252	2,116	2,430
Indonesia	42,880	19,268	31,373	30,988	42,360
Iran	1,262	107	371	3,069	10,463
Iraq	5,409	3,645	3,767	5,500	976
Jamaica	1,481	1,022	1,240	1,220	-134
Jordan	2,295	834	1,409	1,286	1,224
Kazakhstan	1,028	610	1,580	1,592	7,867
Libya	-1,451	-1,617	-1,577	-1,272	2,922
Malaysia	6,700	-311	4,534	1,753	38,297
Maldives	-762	-634	-478	-677	1,524
Marshall Islands	-651	-457	-430	-514	779
Mexico	34,372	-573	21,473	13,409	89,278
Micronesia [2]	-10,511	-10,555	-10,518	-10,548	10,653
Moldova	133	-170	-1	-36	729
Mongolia	-50	1	266	47	1,279
Montenegro	476	430	474	452	-128
North Macedonia	774	399	545	518	201
Paraguay	1,737	889	1,263	1,225	662
Peru	4,882	6,224	8,798	6,415	12,100
Philippines	26,644	10,114	17,415	16,359	9,282
Saint Lucia	-128	-145	-136	-136	239
Saint Vincent and the Grenadines	-1,075	-1,076	-1,038	-1,084	1,279
Samoa	-4,332	-4,336	-4,294	-4,339	4,513
Serbia	2,314	955	1,553	1,398	2,198
South Africa	12,829	5,878	12,245	8,920	27,308
Sri Lanka	3,081	1,686	2,113	2,507	434
Suriname [2]	-1,796	-1,650	-1,584	-1,675	2,113
Thailand	12,971	-698	5,894	5,697	30,973
Tonga [2]	100	13	75	34	113
Turkmenistan	816	337	565	559	681
Türkiye	13,172	1,965	5,953	9,107	29,915
Ukraine	8,530	4,618	6,152	6,704	1,489
Venezuela	13,506	12,640	12,917	13,299	-10,614
Vietnam	27,775	10,103	15,925	16,831	16,780
HIGH-INCOME	**317,287**	**591,776**	**435,829**	**431,850**	**3,284,584**
American Samoa	-8,915	-8,948	-8,918	-8,973	9,165
Andorra	8,267	8,312	8,303	8,301	-8,129
Antigua and Barbuda [2]	-1,589	-1,581	-1,560	-1,582	1,734
Australia	23,392	36,727	29,807	28,589	78,433
Austria	-7,866	-2,636	-5,596	-6,494	34,189
Bahrain	754	47	218	256	1,839
Belgium	3,602	31,874	20,445	12,109	40,700

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Table E1 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Reported profits
	US$ m	US$ m	US$ m	US$ m	US$ m
Brunei	416	400	369	457	144
Bulgaria	3,212	1,386	2,087	2,134	2,825
Canada	-57,664	-26,186	-32,444	-47,857	217,901
Chile	4,995	6,391	8,317	4,558	25,002
Cook Islands [2]	6,889	6,903	6,889	6,872	-6,810
Costa Rica	3,616	1,198	2,087	1,500	3,214
Croatia	1,760	782	998	1,148	2,051
Czechia	9,009	3,917	5,216	5,465	16,741
Denmark	-19,104	-10,941	-14,159	-15,316	37,871
Estonia	1,226	750	812	1,040	637
Falkland Islands (Malvinas) [2]	-345	-346	-342	-350	386
Faroe Islands [2]	-2,265	-2,175	-2,200	-2,218	2,406
Finland	2,502	5,602	1,613	2,367	18,642
France	76,344	73,004	68,370	78,007	123,499
French Guiana [2]	-5,967	-6,042	-6,013	-5,998	6,218
French Polynesia	-2,672	-2,632	-2,632	-2,714	3,169
Germany	49,438	67,534	51,159	54,320	194,303
Greece	3,345	2,167	2,690	2,952	4,576
Greenland [2]	-973	-874	-979	-1,027	1,290
Guadeloupe [2]	7,792	8,192	8,123	7,834	-6,430
Guam	456	351	317	269	120
Guyana	-4,215	-4,148	-4,015	-4,114	4,884
Hungary	8,084	4,271	6,440	5,366	8,950
Iceland	1,589	1,736	1,625	1,701	-817
Israel	248	-1,160	-1,461	128	11,943
Italy	36,055	27,098	27,579	36,267	77,117
Japan	-90,174	-47,440	-59,653	-69,169	423,515
Kuwait	3,338	1,887	1,997	3,081	1,412
Latvia	1,315	831	917	1,108	527
Lithuania	1,463	669	900	990	1,668
Macao	-5,027	-4,337	-4,496	-4,920	8,535
Martinique [2]	716	595	944	660	739
Nauru [2]	-1,200	-1,230	-1,217	-1,231	1,281
New Caledonia	242	136	117	-1	714
New Zealand	-2,921	-4,170	-4,828	-3,866	15,309
Northern Mariana Islands [2]	2,647	2,718	2,710	2,633	-2,358
Norway	-2,750	2,873	-300	-989	27,204
Oman	2,146	1,823	1,848	2,265	1,167
Palau [2]	-181	-233	-203	-236	345
Poland	32,475	17,748	22,776	23,620	21,402
Portugal	4,776	1,274	2,768	2,661	13,051
Qatar	4,456	2,910	2,770	4,296	1,741
Romania	18,442	10,399	13,277	13,632	7,044
Russia	65,548	41,853	47,276	58,966	8,915
Réunion [2]	-4,828	-4,851	-4,699	-4,746	5,999
Saint Kitts and Nevis	-106	-108	-112	-122	217
Saint Martin (French part) [2]	4,175	4,087	4,145	4,072	-3,822
San Marino [2]	-941	-939	-933	-933	1,009

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Table E1 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Reported profits
	US$ m	US$ m	US$ m	US$ m	US$ m
Saudi Arabia	-5,987	-2,203	-2,289	-5,921	50,931
Sint Maarten (Dutch part) [2]	842	943	928	875	-647
Slovakia	4,586	2,046	2,994	2,974	5,628
Slovenia	1,103	869	830	846	2,078
South Korea	-29,549	-17,264	-22,160	-18,588	147,819
Spain	20,248	21,506	18,367	18,878	64,882
Sweden	-11,612	-4,059	-8,864	-8,289	55,223
Taiwan	12,006	4,904	5,116	9,990	26,287
Trinidad and Tobago	-793	-737	-642	-621	1,912
Turks and Caicos Islands [2]	2,437	2,536	2,505	2,462	-2,272
U.S. Virgin Islands	1,010	1,372	1,150	863	188
United Kingdom	16,782	25,358	18,433	17,953	216,757
United States	131,476	309,866	220,947	214,142	1,269,479
Uruguay	-18	-494	-344	-169	2,544
Wallis and Futuna [2]	-272	-334	-296	-319	394
TAX HAVENS	**-835,789**	**-698,128**	**-756,035**	**-771,870**	**1,108,917**
Anguilla [2]	-13,452	-12,848	-13,437	-13,623	14,211
Aruba	-38	-31	-52	-66	243
Bahamas	-14,725	-13,499	-13,812	-14,111	15,742
Barbados	-9,891	-9,170	-9,158	-9,296	10,279
Bermuda	-58,365	-55,797	-56,020	-56,473	59,247
British Indian Ocean Territory [2]	5,779	3,801	7,560	4,295	5,514
British Virgin Islands	-38,988	-34,064	-34,147	-35,376	39,080
Cayman Islands	-60,507	-56,553	-57,190	-58,008	61,482
Curaçao	-1,209	-1,266	-1,266	-1,256	1,405
Cyprus	-3,282	-3,462	-3,498	-3,470	4,742
Gibraltar	-22,151	-22,153	-22,164	-22,148	22,234
Guernsey	19,943	26,603	20,321	19,069	-13,568
Hong Kong	-119,618	-97,838	-100,161	-104,498	154,746
Ireland	-72,502	-57,903	-59,982	-61,690	94,952
Isle of Man	-50,900	-45,466	-49,907	-51,314	51,307
Jersey	-44,147	-41,516	-43,453	-44,766	47,426
Liberia	-1,452	-1,135	-1,066	-1,192	1,762
Liechtenstein	-6,594	-5,761	-6,115	-6,246	7,041
Luxembourg	-1,354	7,625	6,428	5,617	2,575
Malta	-4,754	-4,599	-4,623	-4,594	6,315
Mauritius	-6,059	-6,111	-5,939	-6,086	7,160
Monaco	-649	-376	-661	-644	1,033
Netherlands	-83,775	-69,867	-77,916	-76,566	142,708
Panama	-8,514	-8,001	-7,666	-8,131	13,012
Puerto Rico	-34,536	-16,561	-34,975	-35,276	41,950
Seychelles	-3,520	-3,542	-3,534	-3,528	3,612
Singapore	-120,387	-103,266	-108,361	-112,573	157,197
Switzerland	-76,534	-62,854	-71,375	-66,670	134,208
United Arab Emirates	-3,612	-2,520	-3,868	-3,248	21,304

Table E2: Change in corporate income tax revenue under unitary taxation — imputed sample

Notes: This table corresponds to Table 3 of the main report, estimated on the gravity-imputed full sample instead of the reported sample. Taxable profits gained are taxed at the statutory corporate income tax rate; profits lost are valued at the effective rate that previously applied to them. The final column gives the tax currently collected from these multinationals on directly reported rows. Monetary values are in millions of constant 2025 US dollars, annual averages over 2016–2022 excluding 2020. The flag [2] is defined in the notes to Table E1. Percentage changes are not reported on the imputed sample (see the introduction to this appendix).

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Current tax revenue
	US$ m	US$ m	US$ m	US$ m	US$ m
LOW-INCOME	**16,651**	**17,879**	**17,676**	**15,977**	**822**
Afghanistan	236	252	261	241	18
Burkina Faso	-1,401	-1,356	-1,133	-1,067	17
Burundi [2]	105	0	0	76	0
Central African Republic [2]	95	72	79	78	1
Chad	-63	-134	-34	-57	20
DR Congo	1,137	1,272	1,623	1,390	340
Ethiopia	1,738	648	735	1,019	130
Gambia	33	-54	42	29	3
Guinea-Bissau [2]	0	0	0	0	0
Madagascar	-424	-541	-495	-390	23
Malawi	-901	-744	-735	-787	25
Mali	4,287	5,024	4,492	4,211	20
Mozambique	875	917	971	597	67
Niger	-355	-100	-97	-140	11
North Korea [2]	-76	-134	-111	-72	4
Rwanda	189	131	177	164	4
Sierra Leone	2,514	2,144	2,006	1,915	2
Somalia [2]	1,991	2,059	1,954	1,637	0
South Sudan [2]	6	0	4	3	1
Sudan	5,308	7,052	6,423	5,777	85
Syria	949	1,482	1,533	986	0
Uganda	287	171	221	291	49
Yemen	121	-285	-242	74	4
LOWER-MIDDLE-INCOME	**81,158**	**53,668**	**67,543**	**75,322**	**28,390**
Angola	-1,112	907	1,006	1,185	529
Bangladesh	4,107	3,034	3,160	4,281	374
Benin	116	87	113	117	4
Bhutan [2]	-336	-614	-589	-283	2
Bolivia	264	75	171	290	110
Cambodia	508	200	397	304	165
Cameroon	604	444	530	584	75
Comoros [2]	0	0	0	0	0
Congo (Rep.)	1,387	3,056	2,822	2,567	195
Côte d'Ivoire	532	347	432	518	259
Djibouti	12	7	11	13	1
Egypt	2,494	1,841	2,147	2,450	359
Eswatini	-610	-819	-818	-824	39
Ghana	670	684	767	796	191
Guinea	-1,759	-1,482	-1,325	-1,431	27
Haiti [2]	0	0	0	0	0
Honduras	702	369	563	484	103

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Table E2 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Current tax revenue
	US$ m	US$ m	US$ m	US$ m	US$ m
India	55,977	33,572	42,686	47,205	22,326
Kenya	1,786	1,235	1,400	1,700	323
Kiribati [2]	0	0	0	0	0
Kosovo	369	88	239	175	2
Kyrgyzstan	92	130	139	117	1
Laos	-153	-133	-114	-135	29
Lebanon	662	562	601	663	56
Lesotho [2]	-6	-146	-130	-143	17
Mauritania	744	944	864	748	4
Morocco	2,418	1,387	1,939	1,897	929
Myanmar	766	564	634	665	123
Namibia	240	183	247	200	79
Nepal	216	-717	-201	215	49
Nicaragua	789	417	665	500	108
Nigeria	3,393	3,107	3,373	4,116	383
Pakistan	2,978	1,928	2,166	2,815	932
Palestine [2]	0	0	0	0	0
Papua New Guinea	211	422	479	379	82
Sao Tome and Principe [2]	300	418	378	338	0
Senegal	258	32	234	243	162
Solomon Islands	-84	-145	-78	-94	2
Tajikistan	132	106	151	165	3
Tanzania	696	551	628	704	41
Timor-Leste	-755	-787	-512	-578	1
Togo	53	26	50	45	12
Tunisia	776	453	641	604	85
Uzbekistan	252	205	218	290	3
Vanuatu	0	0	0	0	0
Zambia	1,211	1,053	1,219	1,184	91
Zimbabwe	260	76	242	252	117
UPPER-MIDDLE-INCOME	**153,384**	**45,956**	**99,088**	**90,928**	**364,434**
Albania	144	133	142	145	11
Algeria	2,998	2,451	2,496	3,258	99
Argentina	8,205	5,901	7,003	8,470	4,748
Armenia	208	126	181	153	4
Azerbaijan	333	320	289	350	42
Belarus	390	258	322	372	54
Belize	-204	-402	-241	-200	2
Bosnia and Herzegovina	97	59	74	87	25
Botswana	108	56	84	104	32
Brazil	22,507	10,596	20,216	20,688	26,559
Cabo Verde	-211	-286	-187	-252	4
China	33,733	-4,368	1,084	-1,351	255,548
Colombia	8,430	6,727	9,054	8,724	4,138
Cuba	830	623	708	883	2
Dominica [2]	0	0	0	0	0
Dominican Republic	904	499	690	695	334
Ecuador	970	689	862	931	381
El Salvador	557	271	439	367	122

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Table E2 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Current tax revenue
	US$ m	US$ m	US$ m	US$ m	US$ m
Equatorial Guinea	-798	-666	-633	-498	13
Fiji	17	-0	9	10	18
Gabon	-171	-103	243	38	174
Georgia	109	84	105	111	6
Grenada [2]	0	0	0	0	0
Guatemala	850	157	484	497	262
Indonesia	14,198	7,734	12,149	13,054	9,038
Iran	2,748	2,049	2,134	2,973	47
Iraq	2,118	1,613	1,675	2,338	95
Jamaica	632	561	632	586	53
Jordan	321	157	268	260	55
Kazakhstan	344	385	633	969	489
Libya	208	238	268	276	18
Malaysia	14	-1,870	-386	-1,451	7,068
Maldives	-135	-318	-470	8	6
Marshall Islands	-2	-1	-1	-1	1
Mexico	21,554	-3,428	11,605	3,695	24,914
Micronesia [2]	-4,400	-5,048	-4,301	-4,004	55
Moldova	139	76	116	97	5
Mongolia	140	116	168	128	18
Montenegro	58	58	59	53	3
North Macedonia	166	109	140	125	26
Paraguay	150	91	126	163	48
Peru	2,073	2,528	3,001	2,601	1,518
Philippines	7,705	3,969	5,945	5,420	1,700
Saint Lucia	-7	-7	-8	-8	2
Saint Vincent and the Grenadines	-96	-58	-57	-59	5
Samoa	-88	-126	-94	-99	8
Serbia	419	226	303	273	139
South Africa	6,417	4,947	7,579	5,722	10,430
Sri Lanka	1,157	780	907	1,038	61
Suriname [2]	-144	-310	-163	-136	1
Thailand	2,242	-1,952	1,440	331	4,900
Tonga [2]	0	0	0	0	0
Turkmenistan	52	40	51	50	5
Türkiye	3,358	-82	2,377	3,131	7,043
Ukraine	4,010	2,794	3,400	3,574	804
Venezuela	2,338	4,536	2,412	2,420	128
Vietnam	5,687	3,025	3,755	3,817	3,171
HIGH-INCOME	**165,129**	**251,916**	**205,138**	**212,658**	**736,613**
American Samoa	-1,344	-1,225	-1,145	-1,095	3
Andorra	544	848	675	618	0
Antigua and Barbuda [2]	0	0	0	0	0
Australia	11,030	16,872	11,780	12,410	14,174
Austria	149	1,375	-831	266	3,847
Bahrain	1	1	0	1	1
Belgium	2,160	12,478	8,767	6,202	8,662
Brunei	88	92	84	101	7
Bulgaria	433	283	339	373	236

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Table E2 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Current tax revenue
	US$ m	US$ m	US$ m	US$ m	US$ m
Canada	-13,910	-5,124	-5,824	-8,005	35,519
Chile	1,288	2,024	2,121	1,496	3,714
Cook Islands [2]	110	190	184	189	0
Costa Rica	909	306	608	340	398
Croatia	428	310	353	383	224
Czechia	2,704	1,579	2,078	2,419	2,268
Denmark	-4,375	-3,203	-3,480	-3,869	5,626
Estonia	214	166	173	212	39
Falkland Islands (Malvinas) [2]	0	0	0	0	0
Faroe Islands [2]	-210	18	18	0	1
Finland	3,153	3,832	2,231	3,176	3,248
France	38,680	34,663	33,551	39,659	33,109
French Guiana [2]	0	0	0	0	0
French Polynesia	-1,730	-1,826	-1,622	-1,509	30
Germany	25,696	26,523	23,353	27,763	41,520
Greece	908	806	916	899	1,019
Greenland [2]	-154	-234	-215	-218	6
Guadeloupe [2]	361	735	350	413	0
Guam	178	183	172	159	21
Guyana	65	76	78	66	6
Hungary	1,968	891	1,264	1,095	1,672
Iceland	480	931	802	859	19
Israel	339	252	124	422	1,733
Italy	20,231	17,068	16,830	21,655	18,847
Japan	-61,936	-35,212	-39,114	-54,812	125,738
Kuwait	587	426	441	602	29
Latvia	286	226	231	270	44
Lithuania	314	168	261	267	136
Macao	-916	262	125	-775	2,104
Martinique [2]	58	106	91	94	0
Nauru [2]	0	0	0	0	0
New Caledonia	163	155	150	127	41
New Zealand	-585	-2,555	-2,646	-1,750	3,039
Northern Mariana Islands [2]	136	217	141	122	0
Norway	235	1,739	979	827	5,183
Oman	1,299	1,187	1,121	1,345	72
Palau [2]	0	0	0	0	0
Poland	7,960	5,737	6,602	6,763	4,073
Portugal	1,279	828	1,046	1,066	1,814
Qatar	1,433	1,234	1,125	1,482	17
Romania	3,849	2,945	3,356	3,437	1,259
Russia	18,582	14,734	15,332	18,620	1,118
Réunion [2]	13	10	11	11	1
Saint Kitts and Nevis	-12	-11	-11	-12	7
Saint Martin (French part) [2]	165	311	187	166	0
San Marino [2]	0	-67	0	-67	0
Saudi Arabia	-2,958	-1,354	-1,437	-2,523	9,866

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Table E2 (continued)

Country	Sales & employees	CCCTB	Three-factor	Double-weighted sales	Current tax revenue
	US$ m	US$ m	US$ m	US$ m	US$ m
Sint Maarten (Dutch part) [2]	0	122	0	0	0
Slovakia	1,209	819	1,011	1,062	603
Slovenia	778	662	697	709	441
South Korea	14,153	11,779	10,756	16,171	40,522
Spain	9,496	8,993	8,277	9,504	11,340
Sweden	6,300	6,564	5,573	6,835	8,971
Taiwan	2,137	1,412	1,303	1,999	4,147
Trinidad and Tobago	-160	120	140	114	173
Turks and Caicos Islands [2]	0	0	0	0	0
U.S. Virgin Islands	340	591	490	404	9
United Kingdom	26,608	28,888	27,264	27,644	36,072
United States	43,943	90,159	68,064	66,491	303,538
Uruguay	-21	-170	-160	-15	305
Wallis and Futuna [2]	0	0	0	0	0
TAX HAVENS	**-65,309**	**-47,325**	**-53,066**	**-56,348**	**75,682**
Anguilla [2]	0	0	0	0	0
Aruba	-20	-23	-22	-23	14
Bahamas	-155	-156	-155	-154	127
Barbados	-164	-171	-167	-169	101
Bermuda	-1,135	-1,227	-1,154	-1,177	886
British Indian Ocean Territory [2]	0	0	0	0	0
British Virgin Islands	-561	-506	-503	-517	543
Cayman Islands	-315	-186	-271	-275	605
Curaçao	-3	-4	-4	-3	7
Cyprus	-55	-79	-89	-64	165
Gibraltar	-25	-24	-23	-23	18
Guernsey	3,414	10,242	7,881	5,166	36
Hong Kong	-13,704	-11,660	-12,150	-12,282	12,404
Ireland	-14,530	-13,020	-13,225	-13,562	14,544
Isle of Man	-286	-303	-295	-288	24
Jersey	-2,943	-3,292	-3,039	-2,342	96
Liberia	-43	-5	3	-30	6
Liechtenstein	-442	101	-475	-486	26
Luxembourg	1,688	3,819	3,530	3,280	3,311
Malta	-3,630	-3,459	-3,472	-3,490	365
Mauritius	-664	-668	-671	-661	562
Monaco	-122	-76	-118	-111	74
Netherlands	-8,851	-7,292	-8,049	-8,233	15,887
Panama	-365	-302	-54	-247	352
Puerto Rico	-1,023	-879	-1,033	-1,043	1,003
Seychelles	-266	-273	-239	-223	2
Singapore	-12,078	-10,831	-11,436	-11,441	11,564
Switzerland	-9,039	-7,069	-7,851	-7,962	12,934
United Arab Emirates	9	18	16	12	23

Table E3: Unitary taxation effects with and without resource rent correction — imputed sample

Notes: This table corresponds to Table 4 of the main report, estimated on the gravity-imputed full sample instead of the reported sample. It reports the estimated change in each country's taxable profits and corporate income tax revenue when ignoring resource rights (the naive comparison) and when granting resource rights priority over taxing rights (the baseline of the report); for tax revenue, additionally enforcing the minimum royalty (total revenue change, with the royalty component shown separately). Preferred sales & employees formula with destination-based sales. Monetary values are in millions of constant 2025 US dollars, annual averages over 2016–2022 excluding 2020. The flag [2] is defined in the notes to Table E1.

	Change in taxable profits		**Change in tax revenue**			**Of which: royalty add-on**
Country	Resources ignored	Baseline (res. excl.)	Resources ignored	Baseline (res. excl.)	+ Minimum royalty	
LOW-INCOME	**9,546**	**9,126**	**19,776**	**16,651**	**14,892**	**507**
Afghanistan	1,067	980	446	236	206	35
Burkina Faso	-7,968	-7,861	-3,341	-1,401	-562	0
Burundi [2]	1,672	1,650	126	105	49	0
Central African Republic [2]	643	623	82	95	55	0
Chad	-2,333	-2,005	-1,485	-63	-61	0
DR Congo	-7,807	-7,116	349	1,137	998	0
Ethiopia	1,483	1,178	811	1,738	1,712	14
Gambia	-1,858	-1,888	24	33	24	0
Guinea-Bissau [2]	253	245	30	0	0	0
Madagascar	-3,241	-3,285	-283	-424	-63	16
Malawi	-1,876	-2,101	-158	-901	-532	0
Mali	11,153	11,080	11,882	4,287	3,335	0
Mozambique	4,404	4,383	1,079	875	1,637	173
Niger	-3,186	-3,192	-2,621	-355	-24	13
North Korea [2]	1,227	1,126	-121	-76	-8	29
Rwanda	531	474	280	189	146	3
Sierra Leone	5,999	5,968	2,706	2,514	981	1
Somalia [2]	8,588	8,527	1,931	1,991	1,048	0
South Sudan [2]	-2,640	-2,614	-229	6	6	0
Sudan	6,602	6,451	5,387	5,308	4,547	203
Syria	3,023	2,954	2,406	949	783	20
Uganda	692	578	306	287	304	0
Yemen	-6,881	-7,028	168	121	312	0
LOWER-MIDDLE-INCOME	**151,524**	**158,026**	**67,576**	**81,158**	**94,656**	**2,515**
Angola	-4,761	-1,673	-5,472	-1,112	-450	0
Bangladesh	9,135	8,117	3,151	4,107	4,099	39
Benin	-873	-923	125	116	92	0
Bhutan [2]	-586	-627	-575	-336	-180	0
Bolivia	837	676	355	264	266	0
Cambodia	1,537	1,334	480	508	455	0
Cameroon	879	1,141	340	604	644	0
Comoros [2]	15	8	0	0	0	0
Congo (Rep.)	3,019	3,075	3,967	1,387	1,916	0
Côte d'Ivoire	1,596	1,453	376	532	516	0
Djibouti	-553	-570	12	12	10	0
Egypt	6,996	9,219	2,547	2,494	2,780	0
Eswatini	-3,888	-3,927	-736	-610	-219	0
Ghana	-816	110	184	670	741	0
Guinea	-9,021	-8,781	-2,256	-1,759	-727	160

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Table E3 (continued)

Country	Change in taxable profits		Change in tax revenue			Of which: royalty add-on
	Resources ignored	Baseline (res. excl.)	Resources ignored	Baseline (res. excl.)	+ Minimum royalty	
Haiti [2]	-792	-910	0	0	0	0
Honduras	2,709	2,503	741	702	887	72
India	114,099	112,665	50,120	55,977	64,614	1,885
Kenya	2,914	2,541	986	1,786	1,880	8
Kiribati [2]	120	113	0	0	0	0
Kosovo	-988	-1,298	364	369	425	0
Kyrgyzstan	700	658	150	92	147	81
Laos	-2,843	-2,780	-423	-153	-72	77
Lebanon	2,313	2,026	503	662	736	0
Lesotho [2]	-550	-579	-2	-6	22	0
Mauritania	2,745	2,712	1,832	744	564	0
Morocco	5,306	4,934	2,014	2,418	2,397	0
Myanmar	2,778	2,576	708	766	876	110
Namibia	442	429	154	240	227	0
Nepal	-1,983	-2,106	207	216	193	0
Nicaragua	3,481	3,256	665	789	1,513	9
Nigeria	6,329	9,618	3,492	3,393	3,652	0
Pakistan	8,135	6,796	3,087	2,978	2,851	0
Palestine [2]	4,920	4,825	162	0	0	0
Papua New Guinea	-497	913	-111	211	292	0
Sao Tome and Principe [2]	2,650	2,647	230	300	398	0
Senegal	411	409	162	258	266	0
Solomon Islands	-271	-301	-56	-84	-74	1
Tajikistan	-553	-477	32	132	129	44
Tanzania	839	1,271	466	696	743	6
Timor-Leste	-8,204	-6,852	-2,714	-755	-369	0
Togo	-2,254	-2,280	45	53	51	6
Tunisia	2,192	2,132	1,133	776	873	0
Uzbekistan	1,966	1,778	305	252	238	0
Vanuatu	665	652	0	0	0	0
Zambia	1,225	1,351	721	1,211	1,002	0
Zimbabwe	6	170	108	260	250	17
UPPER-MIDDLE-INCOME	**358,129**	**351,350**	**193,987**	**153,384**	**181,625**	**0**
Albania	646	591	102	144	137	0
Algeria	1,099	3,324	984	2,998	3,054	0
Argentina	15,210	13,150	5,676	8,205	8,392	0
Armenia	2,375	2,184	237	208	409	0
Azerbaijan	97	1,295	8	333	338	0
Belarus	1,720	1,547	398	390	363	0
Belize	-3,529	-3,546	-585	-204	-203	0
Bosnia and Herzegovina	743	658	94	97	92	0
Botswana	-44	303	34	108	110	0
Brazil	35,819	39,838	19,536	22,507	25,720	0
Cabo Verde	-1,960	-1,973	-932	-211	-158	0
China	114,587	79,475	113,733	33,733	45,485	0
Colombia	12,603	12,654	4,516	8,430	10,671	0

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Table E3 (continued)

Country	Change in taxable profits		Change in tax revenue			Of which: royalty add-on
	Resources ignored	Baseline (res. excl.)	Resources ignored	Baseline (res. excl.)	+ Minimum royalty	
Cuba	158	-110	1,319	830	754	0
Dominica [2]	-105	-116	0	0	0	0
Dominican Republic	3,919	3,579	929	904	1,092	0
Ecuador	2,520	2,855	1,004	970	1,083	0
El Salvador	2,441	2,222	654	557	725	0
Equatorial Guinea	-17,100	-14,503	-505	-798	-262	0
Fiji	184	127	57	17	16	0
Gabon	-1,053	-567	-1,850	-171	-80	0
Georgia	906	716	132	109	122	0
Grenada [2]	-54	-63	0	0	0	0
Guatemala	3,585	3,302	870	850	1,091	0
Indonesia	36,362	42,880	12,444	14,198	14,708	0
Iran	2,564	1,262	2,692	2,748	2,354	0
Iraq	4,849	5,409	1,688	2,118	2,046	0
Jamaica	1,592	1,481	523	632	590	0
Jordan	2,914	2,295	423	321	511	0
Kazakhstan	-1,597	1,028	-916	344	367	0
Libya	-6,113	-1,451	-4,892	208	216	0
Malaysia	-5,340	6,700	-4,369	14	503	0
Maldives	-701	-762	-288	-135	-107	0
Marshall Islands	-642	-651	-1	-2	-2	0
Mexico	42,277	34,372	19,075	21,554	23,960	0
Micronesia [2]	-10,501	-10,511	-5,015	-4,400	-2,940	0
Moldova	193	133	127	139	125	0
Mongolia	7	-50	111	140	126	0
Montenegro	506	476	78	58	51	0
North Macedonia	842	774	171	166	162	0
Paraguay	1,930	1,737	151	150	247	0
Peru	-4,079	4,882	-1,085	2,073	2,545	0
Philippines	28,584	26,644	8,017	7,705	8,020	0
Saint Lucia	-120	-128	-59	-7	-4	0
Saint Vincent and the Grenadines	-1,061	-1,075	-31	-96	-96	0
Samoa	-4,321	-4,332	-198	-88	-88	0
Serbia	2,673	2,314	451	419	411	0
South Africa	8,262	12,829	2,239	6,417	6,589	0
Sri Lanka	3,417	3,081	939	1,157	1,075	0
Suriname [2]	-1,814	-1,796	-444	-144	-133	0
Thailand	11,824	12,971	1,573	2,242	2,922	0
Tonga [2]	113	100	0	0	0	0
Turkmenistan	900	816	642	52	85	0
Türkiye	17,240	13,172	3,386	3,358	3,835	0
Ukraine	8,921	8,530	2,208	4,010	4,038	0
Venezuela	13,662	13,506	2,590	2,338	4,684	0
Vietnam	30,022	27,775	5,345	5,687	5,875	0
HIGH-INCOME	**316,312**	**317,287**	**55,465**	**165,129**	**196,418**	**0**
American Samoa	-8,897	-8,915	-9,106	-1,344	-603	0
Andorra	8,278	8,267	995	544	314	0
Antigua and Barbuda [2]	-1,578	-1,589	0	0	0	0

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Table E3 (continued)

Country	Change in taxable profits		Change in tax revenue			Of which: royalty add-on
	Resources ignored	Baseline (res. excl.)	Resources ignored	Baseline (res. excl.)	+ Minimum royalty	
Australia	-22,007	23,392	-8,468	11,030	13,430	0
Austria	-6,109	-7,866	1,867	149	363	0
Bahrain	674	754	-4	1	2	0
Belgium	6,062	3,602	3,656	2,160	2,021	0
Brunei	416	416	91	88	82	0
Bulgaria	3,652	3,212	432	433	432	0
Canada	-65,903	-57,664	-14,535	-13,910	-13,828	0
Chile	-4,140	4,995	-1,690	1,288	1,560	0
Cook Islands [2]	6,895	6,889	718	110	203	0
Costa Rica	4,090	3,616	1,017	909	1,204	0
Croatia	2,058	1,760	390	428	401	0
Czechia	10,928	9,009	2,817	2,704	2,710	0
Denmark	-19,694	-19,104	-3,828	-4,375	-4,375	0
Estonia	1,409	1,226	328	214	194	0
Falkland Islands (Malvinas) [2]	-342	-345	0	0	0	0
Faroe Islands [2]	-2,254	-2,265	-358	-210	-126	0
Finland	4,296	2,502	2,165	3,153	2,985	0
France	93,906	76,344	37,186	38,680	41,489	0
French Guiana [2]	-5,948	-5,967	0	0	0	0
French Polynesia	-2,637	-2,672	-2,712	-1,730	-1,080	0
Germany	67,437	49,438	25,800	25,696	27,998	0
Greece	3,973	3,345	1,200	908	1,083	0
Greenland [2]	-953	-973	-275	-154	-77	0
Guadeloupe [2]	7,884	7,792	1,007	361	440	0
Guam	493	456	117	178	258	0
Guyana	-4,168	-4,215	-1,276	65	64	0
Hungary	9,240	8,084	1,152	1,968	1,935	0
Iceland	1,670	1,589	761	480	368	0
Israel	1,317	248	593	339	644	0
Italy	47,005	36,055	17,103	20,231	21,694	0
Japan	-68,568	-90,174	-55,471	-61,936	-61,909	0
Kuwait	3,851	3,338	609	587	553	0
Latvia	1,541	1,315	317	286	281	0
Lithuania	1,753	1,463	325	314	296	0
Macao	-4,794	-5,027	-1,489	-916	-662	0
Martinique [2]	813	716	240	58	52	0
Nauru [2]	-1,196	-1,200	0	0	0	0
New Caledonia	277	242	-8	163	258	0
New Zealand	-943	-2,921	238	-585	-509	0
Northern Mariana Islands [2]	2,660	2,647	250	136	106	0
Norway	-29,453	-2,750	-9,862	235	281	0
Oman	1,471	2,146	296	1,299	1,229	0
Palau [2]	-174	-181	0	0	0	0
Poland	35,015	32,475	6,619	7,960	8,342	0
Portugal	5,998	4,776	1,618	1,279	1,450	0
Qatar	3,249	4,456	637	1,433	1,448	0
Romania	20,391	18,442	2,927	3,849	4,137	0
Russia	58,477	65,548	15,501	18,582	19,863	0

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Table E3 (continued)

Country	Change in taxable profits		Change in tax revenue			Of which: royalty add-on
	Resources ignored	Baseline (res. excl.)	Resources ignored	Baseline (res. excl.)	+ Minimum royalty	
Réunion [2]	-4,736	-4,828	13	13	10	0
Saint Kitts and Nevis	-99	-106	-97	-12	-11	0
Saint Martin (French part) [2]	4,196	4,175	392	165	143	0
San Marino [2]	-936	-941	0	0	0	0
Saudi Arabia	-96,496	-5,987	-50,453	-2,958	-2,818	0
Sint Maarten (Dutch part) [2]	856	842	0	0	0	0
Slovakia	5,390	4,586	1,288	1,209	1,210	0
Slovenia	1,320	1,103	739	778	720	0
South Korea	-21,352	-29,549	14,706	14,153	14,642	0
Spain	26,880	20,248	9,763	9,496	10,623	0
Sweden	-7,132	-11,612	5,605	6,300	5,294	0
Taiwan	15,447	12,006	2,573	2,137	2,472	0
Trinidad and Tobago	-984	-793	-2,457	-160	-110	0
Turks and Caicos Islands [2]	2,448	2,437	0	0	0	0
U.S. Virgin Islands	1,081	1,010	374	340	331	0
United Kingdom	34,125	16,782	6,509	26,608	28,624	0
United States	188,921	131,476	46,494	43,943	58,295	0
Uruguay	226	-18	125	-21	-6	0
Wallis and Futuna [2]	-263	-272	0	0	0	0
TAX HAVENS	**-835,512**	**-835,789**	**-51,095**	**-65,309**	**-61,061**	**17**
Anguilla [2]	-13,406	-13,452	0	0	0	0
Aruba	-24	-38	-27	-20	-6	0
Bahamas	-14,650	-14,725	-34	-155	-127	0
Barbados	-9,858	-9,891	-137	-164	-143	0
Bermuda	-58,275	-58,365	-728	-1,135	-999	0
British Indian Ocean Territory [2]	6,457	5,779	0	0	0	0
British Virgin Islands	-38,967	-38,988	-386	-561	-548	0
Cayman Islands	-60,411	-60,507	-316	-315	-453	0
Curaçao	-1,194	-1,209	-4	-3	-2	0
Cyprus	-3,161	-3,282	-10	-55	-93	0
Gibraltar	-22,129	-22,151	-136	-25	-22	0
Guernsey	20,180	19,943	224	3,414	3,889	0
Hong Kong	-116,673	-119,618	-8,841	-13,704	-13,121	0
Ireland	-70,428	-72,502	-10,276	-14,530	-14,266	0
Isle of Man	-50,647	-50,900	-2,062	-286	-224	0
Jersey	-43,897	-44,147	-266	-2,943	-2,217	0
Liberia	-1,430	-1,452	63	-43	-9	17
Liechtenstein	-6,560	-6,594	-639	-442	-447	0
Luxembourg	-492	-1,354	5,268	1,688	1,143	0
Malta	-4,617	-4,754	-196	-3,630	-3,619	0
Mauritius	-5,976	-6,059	-342	-664	-582	0
Monaco	-617	-649	-110	-122	-103	0
Netherlands	-80,850	-83,775	-4,712	-8,851	-7,559	0
Panama	-8,147	-8,514	-561	-365	-301	0
Puerto Rico	-33,969	-34,536	-883	-1,023	-968	0
Seychelles	-3,510	-3,520	-266	-266	-132	0

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Table E3 (continued)

Country	Change in taxable profits		Change in tax revenue			Of which: royalty add-on
	Resources ignored	Baseline (res. excl.)	Resources ignored	Baseline (res. excl.)	+ Minimum royalty	
Singapore	-117,114	-120,387	-8,992	-12,078	-11,412	0
Switzerland	-71,164	-76,534	-6,648	-9,039	-8,750	0
United Arab Emirates	-23,986	-3,612	-10,078	9	12	0

Confidence intervals. To quantify the uncertainty introduced by the imputation, we bootstrap the full estimation chain on the headline specification (employees + destination-based sales, domestic/foreign effective tax rates, resources excluded): in each of 93 draws, the gravity model is refitted on a resampled training set and the disaggregation, resource correction and unitary-taxation estimation are re-run end to end. Figure E5 shows the resulting 2.5–97.5% confidence intervals for the 25 largest gains and losses; Table E4 reports the point estimate, bootstrap standard error and confidence interval for every country. The intervals capture imputation uncertainty only — they do not reflect other sources of uncertainty, such as reporting error in the underlying country by country data or the tax-rate assumptions, which the report addresses through its conservative-to-optimistic scenario range.

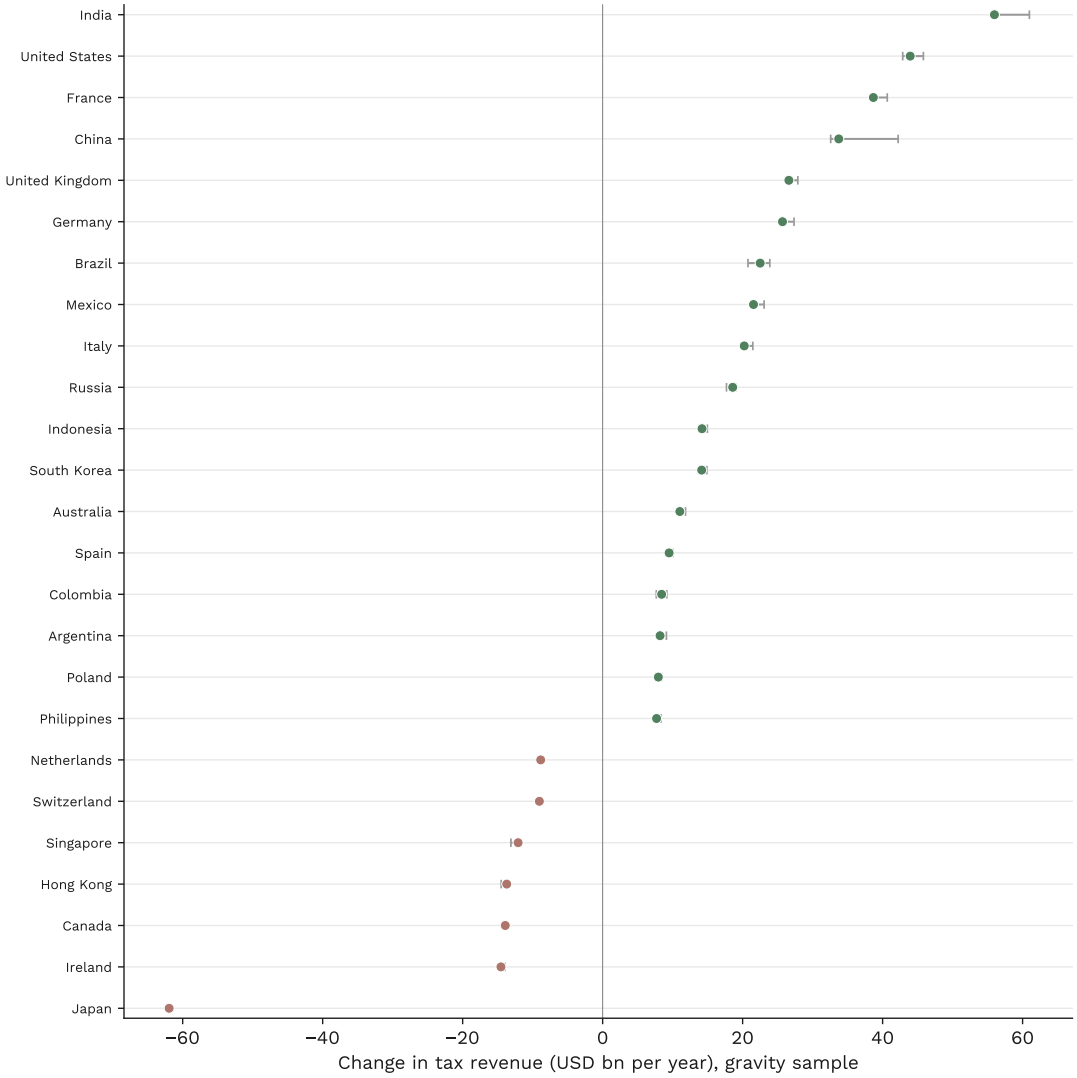

Figure E5: Bootstrap confidence intervals for the largest net revenue changes — imputed sample, headline specification

Notes: Point net revenue gain (green) or loss (red) under unitary taxation on the gravity-imputed full sample, with 2.5–97.5% confidence intervals from 93 bootstrap draws of the gravity imputation, for the 25 countries with the largest absolute changes. Headline specification: 50% employees, 50% destination-based sales; resource-related profits excluded; gains valued at statutory rates and losses at effective rates. US$ billion per year, average over 2016–2022 excluding 2020, constant 2025 US dollars.

Table E4: Net revenue gain on the imputed sample with bootstrap confidence intervals — headline specification

Notes: Point net revenue change under unitary taxation on the gravity-imputed full sample, with bootstrap standard errors and 2.5–97.5% confidence intervals from 93 draws of the gravity imputation (headline specification: 50% employees, 50% destination-based sales; resources excluded; gains at statutory rates, losses at effective rates). US$ billion per year, average over 2016–2022 excluding 2020, constant 2025 US dollars. Group rows (bold) show the summed net change only — standard errors and confidence bounds are not additive and are left blank. The intervals capture imputation uncertainty only.

Country	Net gain (US$ bn/yr)	Std. error (US$ bn)	CI 2.5% (US$ bn)	CI 97.5% (US$ bn)	Distinguishable from zero
LOW-INCOME	**16.7**				
Afghanistan	0.2	0.1	0.2	0.6	yes
Burkina Faso	-1.4	0.7	-3.5	-0.8	yes
Burundi [2]	0.1	0.1	0.0	0.4	yes
Central African Republic [2]	0.1	0.1	0.1	0.2	yes
Chad	-0.1	0.5	-1.5	0.1	no
DR Congo	1.1	0.1	1.0	1.3	yes
Ethiopia	1.7	0.1	1.6	2.0	yes
Gambia	0.0	0.0	0.0	0.1	yes
Guinea-Bissau [2]	0.0	0.0	0.0	0.0	no
Madagascar	-0.4	0.1	-0.5	-0.1	yes
Malawi	-0.9	0.9	-3.3	-0.4	yes
Mali	4.3	1.9	2.5	9.1	yes
Mozambique	0.9	0.1	0.8	1.2	yes
Niger	-0.4	0.2	-0.8	-0.0	yes
North Korea [2]	-0.1	0.0	-0.1	-0.0	yes
Rwanda	0.2	0.1	0.1	0.3	yes
Sierra Leone	2.5	0.6	0.6	2.8	yes
Somalia [2]	2.0	0.8	0.3	3.3	yes
South Sudan [2]	0.0	0.0	-0.0	0.0	no
Sudan	5.3	3.3	3.8	14.8	yes
Syria	0.9	0.9	0.6	3.6	yes
Uganda	0.3	0.0	0.3	0.3	yes
Yemen	0.1	1.1	-4.1	0.1	no
LOWER-MIDDLE-INCOME	**81.2**				
Angola	-1.1	0.4	-1.9	-0.3	yes
Bangladesh	4.1	0.1	4.0	4.4	yes
Benin	0.1	0.0	0.1	0.1	yes
Bhutan [2]	-0.3	0.5	-1.9	-0.1	yes
Bolivia	0.3	0.0	0.3	0.3	yes
Cambodia	0.5	0.0	0.5	0.6	yes
Cameroon	0.6	0.0	0.6	0.7	yes
Comoros [2]	0.0	0.0	0.0	0.0	no
Congo (Rep.)	1.4	1.6	0.9	6.0	yes
Côte d'Ivoire	0.5	0.0	0.5	0.5	yes
Djibouti	0.0	0.0	0.0	0.0	yes
Egypt	2.5	0.1	2.3	2.6	yes
Eswatini	-0.6	0.2	-0.9	-0.3	yes
Ghana	0.7	0.0	0.7	0.8	yes
Guinea	-1.8	1.0	-4.8	-1.0	yes
Haiti [2]	0.0	0.0	0.0	0.0	no
Honduras	0.7	0.0	0.7	0.8	yes

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Table E4 (continued)

Country	Net gain (US$ bn/yr)	Std. error (US$ bn)	CI 2.5% (US$ bn)	CI 97.5% (US$ bn)	Distinguishable from zero
India	56.0	1.5	55.7	61.0	yes
Kenya	1.8	0.1	1.7	2.1	yes
Kiribati [2]	0.0	0.0	0.0	0.0	no
Kosovo	0.4	0.0	0.3	0.5	yes
Kyrgyzstan	0.1	0.0	0.1	0.2	yes
Laos	-0.2	0.4	-1.5	-0.1	yes
Lebanon	0.7	0.0	0.6	0.7	yes
Lesotho [2]	-0.0	0.0	-0.0	0.0	no
Mauritania	0.7	0.5	0.5	2.1	yes
Morocco	2.4	0.1	2.2	2.6	yes
Myanmar	0.8	0.0	0.7	0.8	yes
Namibia	0.2	0.0	0.2	0.3	yes
Nepal	0.2	0.0	0.2	0.3	yes
Nicaragua	0.8	0.1	0.5	0.9	yes
Nigeria	3.4	0.1	3.3	3.6	yes
Pakistan	3.0	0.1	2.8	3.2	yes
Palestine [2]	0.0	0.0	0.0	0.0	no
Papua New Guinea	0.2	0.0	0.2	0.2	yes
Sao Tome and Principe [2]	0.3	0.5	0.2	1.9	yes
Senegal	0.3	0.0	0.2	0.3	yes
Solomon Islands	-0.1	0.1	-0.4	-0.0	yes
Tajikistan	0.1	0.0	0.1	0.2	yes
Tanzania	0.7	0.0	0.7	0.8	yes
Timor-Leste	-0.8	0.6	-2.4	-0.3	yes
Togo	0.1	0.0	0.0	0.1	yes
Tunisia	0.8	0.0	0.7	0.8	yes
Uzbekistan	0.3	0.0	0.2	0.3	yes
Vanuatu	0.0	0.0	0.0	0.0	yes
Zambia	1.2	0.0	1.2	1.3	yes
Zimbabwe	0.3	0.0	0.2	0.3	yes
UPPER-MIDDLE-INCOME	**153.4**				
Albania	0.1	0.0	0.1	0.2	yes
Algeria	3.0	0.2	2.8	3.4	yes
Argentina	8.2	0.3	8.0	9.1	yes
Armenia	0.2	0.0	0.1	0.2	yes
Azerbaijan	0.3	0.0	0.3	0.3	yes
Belarus	0.4	0.0	0.3	0.4	yes
Belize	-0.2	0.0	-0.2	-0.1	yes
Bosnia and Herzegovina	0.1	0.0	0.1	0.1	yes
Botswana	0.1	0.0	0.1	0.1	yes
Brazil	22.5	0.8	20.8	23.9	yes
Cabo Verde	-0.2	0.2	-0.7	-0.1	yes
China	33.7	3.3	32.6	42.2	yes
Colombia	8.4	0.4	7.7	9.2	yes
Cuba	0.8	0.2	0.7	1.3	yes
Dominica [2]	0.0	0.0	0.0	0.0	no
Dominican Republic	0.9	0.0	0.8	1.0	yes
Ecuador	1.0	0.1	0.8	1.1	yes
El Salvador	0.6	0.0	0.5	0.7	yes

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Table E4 (continued)

Country	Net gain (US$ bn/yr)	Std. error (US$ bn)	CI 2.5% (US$ bn)	CI 97.5% (US$ bn)	Distinguishable from zero
Equatorial Guinea	-0.8	0.3	-1.3	-0.3	yes
Fiji	0.0	0.0	0.0	0.0	yes
Gabon	-0.2	0.1	-0.4	-0.1	yes
Georgia	0.1	0.0	0.1	0.1	yes
Grenada [2]	0.0	0.0	0.0	0.0	no
Guatemala	0.9	0.1	0.8	1.0	yes
Indonesia	14.2	0.3	13.8	15.0	yes
Iran	2.7	0.2	2.6	3.0	yes
Iraq	2.1	0.0	2.0	2.2	yes
Jamaica	0.6	0.0	0.6	0.7	yes
Jordan	0.3	0.0	0.2	0.3	yes
Kazakhstan	0.3	0.0	0.3	0.5	yes
Libya	0.2	0.0	0.2	0.3	yes
Malaysia	0.0	0.0	0.0	0.0	yes
Maldives	-0.1	0.3	-1.0	0.2	no
Marshall Islands	-0.0	0.0	-0.0	-0.0	yes
Mexico	21.6	0.4	21.4	23.1	yes
Micronesia [2]	-4.4	4.0	-16.4	-2.7	yes
Moldova	0.1	0.0	0.1	0.2	yes
Mongolia	0.1	0.1	0.1	0.3	yes
Montenegro	0.1	0.0	0.0	0.2	yes
North Macedonia	0.2	0.0	0.1	0.2	yes
Paraguay	0.1	0.0	0.1	0.2	yes
Peru	2.1	0.1	2.0	2.4	yes
Philippines	7.7	0.2	7.5	8.3	yes
Saint Lucia	-0.0	0.0	-0.0	0.0	no
Saint Vincent and the Grenadines	-0.1	0.1	-0.5	-0.0	yes
Samoa	-0.1	0.1	-0.3	-0.0	yes
Serbia	0.4	0.0	0.4	0.5	yes
South Africa	6.4	0.4	6.2	7.5	yes
Sri Lanka	1.2	0.0	1.1	1.3	yes
Suriname [2]	-0.1	0.0	-0.2	-0.0	yes
Thailand	2.2	0.1	2.1	2.5	yes
Tonga [2]	0.0	0.0	0.0	0.0	no
Turkmenistan	0.1	0.0	0.0	0.1	yes
Türkiye	3.4	0.1	3.2	3.7	yes
Ukraine	4.0	0.1	3.8	4.2	yes
Venezuela	2.3	0.2	2.2	3.1	yes
Vietnam	5.7	0.1	5.4	5.8	yes
HIGH-INCOME	**165.1**				
American Samoa	-1.3	0.6	-2.8	-0.8	yes
Andorra	0.5	1.0	0.0	3.4	yes
Antigua and Barbuda [2]	0.0	0.0	0.0	0.0	no
Australia	11.0	0.3	10.9	11.8	yes
Austria	0.1	0.0	0.2	0.2	yes
Bahrain	0.0	0.0	0.0	0.0	yes
Belgium	2.2	0.1	1.9	2.3	yes
Brunei	0.1	0.0	0.1	0.1	yes
Bulgaria	0.4	0.0	0.4	0.5	yes
Canada	-13.9	0.1	-14.3	-13.8	yes

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Table E4 (continued)

Country	Net gain (US$ bn/yr)	Std. error (US$ bn)	CI 2.5% (US$ bn)	CI 97.5% (US$ bn)	Distinguishable from zero
Chile	1.3	0.1	1.1	1.5	yes
Cook Islands [2]	0.1	0.4	0.1	1.2	yes
Costa Rica	0.9	0.0	0.8	0.9	yes
Croatia	0.4	0.0	0.4	0.5	yes
Czechia	2.7	0.1	2.6	3.0	yes
Denmark	-4.4	0.0	-4.4	-4.4	yes
Estonia	0.2	0.0	0.2	0.3	yes
Falkland Islands (Malvinas) [2]	0.0	0.0	0.0	0.0	no
Faroe Islands [2]	-0.2	0.2	-0.8	-0.1	yes
Finland	3.2	0.1	3.1	3.3	yes
France	38.7	0.6	38.5	40.7	yes
French Guiana [2]	0.0	0.0	0.0	0.0	no
French Polynesia	-1.7	1.9	-8.6	-1.5	yes
Germany	25.7	0.5	25.4	27.3	yes
Greece	0.9	0.1	0.9	1.1	yes
Greenland [2]	-0.2	0.1	-0.5	-0.1	yes
Guadeloupe [2]	0.4	0.2	0.2	1.1	yes
Guam	0.2	0.0	0.1	0.2	yes
Guyana	0.1	0.0	0.1	0.1	yes
Hungary	2.0	0.1	1.8	2.2	yes
Iceland	0.5	0.3	0.4	1.2	yes
Israel	0.3	0.1	0.3	0.6	yes
Italy	20.2	0.4	20.1	21.5	yes
Japan	-61.9	0.1	-62.2	-61.7	yes
Kuwait	0.6	0.0	0.6	0.6	yes
Latvia	0.3	0.0	0.3	0.3	yes
Lithuania	0.3	0.0	0.3	0.3	yes
Macao	-0.9	0.2	-1.0	-0.4	yes
Martinique [2]	0.1	0.1	0.0	0.3	yes
Nauru [2]	0.0	0.0	0.0	0.0	no
New Caledonia	0.2	0.2	-0.5	0.2	no
New Zealand	-0.6	0.1	-0.7	-0.4	yes
Northern Mariana Islands [2]	0.1	0.0	0.1	0.2	yes
Norway	0.2	0.0	0.2	0.4	yes
Oman	1.3	0.1	1.2	1.4	yes
Palau [2]	0.0	0.0	0.0	0.0	no
Poland	8.0	0.2	7.6	8.4	yes
Portugal	1.3	0.1	1.2	1.4	yes
Qatar	1.4	0.0	1.4	1.5	yes
Romania	3.8	0.1	3.6	4.1	yes
Russia	18.6	0.4	17.7	19.0	yes
Réunion [2]	0.0	0.0	0.0	0.0	yes
Saint Kitts and Nevis	-0.0	0.0	-0.0	-0.0	yes
Saint Martin (French part) [2]	0.2	0.0	0.1	0.2	yes
San Marino [2]	0.0	0.0	0.0	0.0	no
Saudi Arabia	-3.0	0.1	-3.0	-2.8	yes
Sint Maarten (Dutch part) [2]	0.0	0.0	0.0	0.0	no
Slovakia	1.2	0.1	1.2	1.4	yes

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Table E4 (continued)

Country	Net gain (US$ bn/yr)	Std. error (US$ bn)	CI 2.5% (US$ bn)	CI 97.5% (US$ bn)	Distinguishable from zero
Slovenia	0.8	0.1	0.7	0.9	yes
South Korea	14.2	0.2	14.0	14.9	yes
Spain	9.5	0.2	9.4	10.0	yes
Sweden	6.3	0.1	6.2	6.6	yes
Taiwan	2.1	0.1	2.0	2.2	yes
Trinidad and Tobago	-0.2	0.1	-0.2	0.1	no
Turks and Caicos Islands [2]	0.0	0.0	0.0	0.0	no
U.S. Virgin Islands	0.3	0.0	0.3	0.4	yes
United Kingdom	26.6	0.4	26.4	27.9	yes
United States	43.9	0.8	42.9	45.8	yes
Uruguay	-0.0	0.0	-0.0	-0.0	yes
Wallis and Futuna [2]	0.0	0.0	0.0	0.0	no
TAX HAVENS	**-65.3**				
Anguilla [2]	0.0	0.0	0.0	0.0	no
Aruba	-0.0	0.0	-0.1	0.0	no
Bahamas	-0.2	0.0	-0.2	-0.1	yes
Barbados	-0.2	0.0	-0.2	-0.1	yes
Bermuda	-1.1	0.1	-1.2	-0.9	yes
British Indian Ocean Territory [2]	0.0	0.0	0.0	0.0	no
British Virgin Islands	-0.6	0.0	-0.6	-0.6	yes
Cayman Islands	-0.3	0.0	5.1	5.3	yes
Curaçao	-0.0	0.0	-0.0	-0.0	yes
Cyprus	-0.1	0.0	-0.0	0.0	no
Gibraltar	-0.0	0.0	-0.0	-0.0	yes
Guernsey	3.4	0.1	3.1	3.6	yes
Hong Kong	-13.7	0.3	-14.5	-13.6	yes
Ireland	-14.5	0.3	-14.8	-14.0	yes
Isle of Man	-0.3	0.0	-0.3	-0.2	yes
Jersey	-2.9	0.4	-4.2	-2.5	yes
Liberia	-0.0	0.2	-0.7	-0.0	yes
Liechtenstein	-0.4	0.8	-3.4	-0.3	yes
Luxembourg	1.7	0.0	1.7	1.8	yes
Malta	-3.6	0.4	0.5	2.0	yes
Mauritius	-0.7	0.0	-0.7	-0.6	yes
Monaco	-0.1	0.0	-0.2	-0.1	yes
Netherlands	-8.9	0.1	-9.0	-8.7	yes
Panama	-0.4	0.1	-0.6	-0.3	yes
Puerto Rico	-1.0	0.0	-1.1	-1.0	yes
Seychelles	-0.3	0.3	-1.3	-0.1	yes
Singapore	-12.1	0.3	-13.1	-11.8	yes
Switzerland	-9.0	0.1	-9.2	-8.9	yes
United Arab Emirates	0.0	0.0	0.0	0.0	yes