Revenues and transfers from global taxes

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Abstract

We estimate the revenues by country from six global taxes: a tax on wealth above \$100 million, a small carbon tax, a higher minimum corporate income tax, a financial transaction tax, a tax on maritime fuel and one on aviation fuel. \$2.1 trillion would be collected. We further estimate international transfers that could be financed. Namely, we reallocate 1% of each country's GNI to all countries in proportion to their adult population, and one half of the wealth tax to countries with a per capita GNI lower than twice the world average, in proportion to their distance to this threshold. The combination of these taxes and transfers entail \$766 billion in North–South transfers.

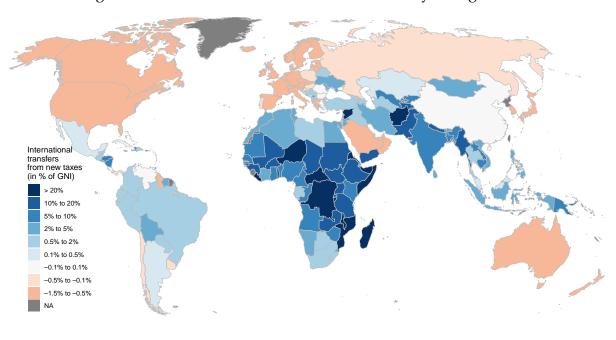


Figure 1: International transfers to be financed by new global taxes.

^{*}Corresponding author: adrien.fabre@cnrs.fr.

Table 1: Global taxes: international transfers, budget gain, revenues collected (% of GNI).

	Int'l transfers	Budget gain	Wealth Tax(3% >100M)	Financ. Transac. Tax	Carbon Tax (10\$/t)	Maritime fuel tax (100\$/t)	Aviation fuel tax (300\$/t)	Corporate inc. tax (min 21%)
World	0.0	2.0	0.72	0.32	0.33	0.10	0.22	0.28
Afghanistan	43.4	45.6	0.29	0.58	0.88	0.01	0.42	0.00
DRC	21.7	22.4	0.32	0.13	0.10	0.11	0.10	0.00
Myanmar	16.2	17.7	0.36	0.51	0.35	0.04	0.25	0.00
Sudan	15.6	17.2	0.34	0.40	0.47	0.05	0.32	0.00
Uganda	14.6	15.6	0.34	0.20	0.15	0.01	0.33	0.00
Ethiopia	13.7	14.8	0.35	0.14	0.12	0.00	0.45	0.00
Tanzania	11.9	12.9	0.36	0.22	0.20	0.02	0.26	0.00
Pakistan	10.7	11.8	0.02	0.35	0.49	0.04	0.18	0.00
Nigeria	7.1	8.2	0.10	0.24	0.34	0.35	0.09	0.00
Kenya	6.9	8.1	0.39	0.15	0.18	0.02	0.42	0.00
India	6.4	8.8	1.26	0.26	0.61	0.05	0.17	0.01
Bangladesh	6.0	6.4	0.03	0.13	0.17	0.02	0.08	0.00
Morocco	4.1	5.9	0.44	0.23	0.49	0.18	0.46	0.00
Vietnam	4.0	5.2	0.01	0.17	0.50	0.11	0.41	0.00
Egypt	3.4	5.1	0.44	0.29	0.63	0.07	0.20	0.00
Philippines	3.3	4.4	0.28	0.19	0.22	0.03	0.37	0.00
Ukraine	3.2	5.4	0.46	0.21	0.98	0.30	0.19	0.00
Iran	3.1	6.2	0.45	0.37	1.63	0.39	0.22	0.00
Indonesia	2.9	4.5	0.25	0.23	0.45	0.23	0.32	0.04
Algeria	2.5	4.3	0.46	0.26	0.72	0.18	0.14	0.00
Thailand	1.8	4.1	0.49	0.25	0.61	0.20	0.79	0.00
Colombia	1.7	3.3	0.49	0.20	0.24	0.36	0.30	0.00
Iraq	1.7	4.9	0.47	0.33	1.00	1.34	0.09	0.00
South Africa	1.6	5.0	0.33	0.19	1.12	0.53	0.38	0.83
Brazil	0.9	3.0	0.60	0.17	0.29	0.57	0.23	0.03
Turkey	0.5	1.8	0.00	0.17	0.45	0.10	0.23	0.24
Mexico	0.3	1.5	0.13	0.24 0.17	0.43	0.10	0.37	0.00
	0.2	1.6	0.54	0.17	0.35	0.03	0.22	0.03
Argentina China	-0.2 -0.1	2.0	1.06	0.13	0.58	0.18	0.23	0.01
			0.87					
Russia	-0.1	2.1		0.18	0.79	0.16	0.24	0.00
Poland	-0.2	1.3	0.11	0.16	0.44	0.07	0.10	0.59
Saudi Arabia	-0.6	1.0	0.11	0.15	0.59	0.52	0.25	0.00
Spain	-0.6	0.7	0.24	0.22	0.14	0.06	0.37	0.34
Japan	-0.7	0.6	0.22	0.40	0.23	0.05	0.14	0.28
South Korea	-0.7	0.8	0.31	0.11	0.30	0.16	0.20	0.38
Italy	-0.8	0.3	0.35	0.17	0.13	0.04	0.15	0.22
United Kingdom	-0.8	2.8	0.25	2.36	0.12	0.04	0.28	0.55
Germany	-1.0	0.6	0.50	$2^{0.22}$	0.16	0.06	0.15	0.44
Canada	-1.0	1.2	0.59	0.09	0.27	0.08	0.26	0.92
France	-1.1	0.8	0.80	0.33	0.10	0.02	0.20	0.40
United States	-1.3	0.7	0.90	0.27	0.19	0.03	0.21	0.34

Note: Budget gain denotes the sum of all other columns: international transfer and revenues collected.

1 Tax on ultra-high wealth

We simulate a 3% tax on all individual wealth in excess of \$100 million. For example, with a wealth of \$150 million, someone would pay each year a 1% tax on their wealth $(3\% \cdot (150 - 100) = 1.5M)$.

The World Inequality Lab offers an online simulator to estimate the revenue collected by a custom wealth tax in each world region. Building on this work, we disaggregate the revenue estimates at the country level. Courtesy of Félix Bajard, we obtained the simulator's underlying data for 50 countries covering 95% of global wealth tax revenue. To impute missing data, we predict the taxable base from a linear regression of the log of taxable base on the log of nominal GDP per capita, weighted by country population.

Following Zucman (2024), we assume 20% of tax evasion. We also conservatively assume that asset prices would decline by 10%. Half of the revenue from the global wealth tax would not be retained domestically but channeled into a fund to finance sustainable development. This fund would return revenues to countries with a per capita GNI below a threshold. We fix this eligibility threshold at twice the world average per capita GNI, or \$26,885 per year (in nominal terms). Finally, eligible countries receive a transfer per adult proportional to the difference between the threshold and their GNI per capita.

2 Financial Transactions Tax

Pekanov & Schratzenstaller (2019) estimate the revenues from a Financial Transactions Tax (FTT). Following the proposal by the European Commission (2011), they use a rate of 0.1% of bonds and stocks and a rate of 0.01% on derivatives. We use their baseline scenario, which assumes evasion rates of 15% on bonds and stocks and 70% on derivatives, together with an elasticity of trading volumes of -1.

Pekanov & Schratzenstaller (2019) provide estimates at the global level and for 18 high-income countries. We allocate the global revenue that does not originate from these 18 countries to remaining countries, in proportion to their GDP. 22% of world revenues would be collected in these remaining countries, with a revenue amounting to 0.1% of their GDP (vs. 0.56% of GDP for the 18 high-income countries).

3 Carbon price

We model simulate the international transfers a \$10/tCO₂ carbon price. At the global level, and neglecting behavioral responses, 0.33% of the world nominal GDP would be collected.

 $^{^{1}} The \ formula \ is: \ Revenue = tax \ rate \cdot volume \cdot evasion \cdot \left(1 + tax \ rate / transaction \ cost\right)^{elasticity}.$

4 Maritime fuel levy

We simulate the revenues of a $$100/tCO_2$ levy on maritime fuel. The emissions from shipping by country are given by the simple average between the minimum and maximum estimates of Dequiedt et al. (2024), who graciously provided the data.

5 Aviation fuel levy

Using data from Graver et al. (2018), we estimate the revenues from a tax on all flights (domestic and international). Due to complex climate effects such as contrails, aviation the global warming potential of aviation (GWP*₁₀₀) is 3 times the warming caused by its CO₂ emissions (Lee et al. 2021). To fully account for all effects on global warming, the carbon levy on aviation should be multiplied by that factor. Therefore, we simulate a \$300/tCO₂ tax on aviation fuel, comparable to the \$100/tCO₂ tax on maritime fuel. We use the 2018 data without adjusting for the expected increase in air traffic, and without adjusting for the decrease in traffic that would follow the tax.³

6 Higher minimum corporate income tax

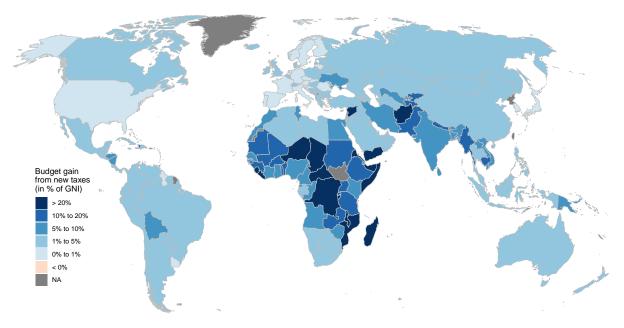
We estimate extra revenue by country if the internationally agreed minimum rate on corporate income tax was raised from 15% to 21%, with no carve-out. We use data from the tax deficit simulator from the EU Tax Observatory. These estimates are available for 45 countries (from OECD and the G20). We impute missing data only for three high-income countries (Iceland, Israel, New Zealand) and conservatively assume no extra revenue for other (developing) countries with missing data.

Our figures are fully reproducible from our data and code, openly availably on github.com/bixiou/global_tax_attitudes/code_global/new_taxes.R. We are here to feed the public debate on global redistribution. We welcome counter-proposals, criticisms and suggestions concerning (including pull requests).

²We use the data unadjusted for tourism.

³More generally, we do not adjust for inflation or changes in volumes throughout this technical note. Figures are only provided to get ballpark estimates and cannot be very precise.

Figure 2: Net gain for state budgets from new taxes and international transfers (revenue plus net transfer).



Bibliography

- V. Dequiedt, A.-A. De Ubeda, & É. Mien. Navigating international taxation: The effects of a carbon levy on shipping. 2024. Link. 4
- B. Graver, K. Zhang, & D. Rutherford. CO2 emissions from commercial aviation, 2018. 2018. 4
- D. S. Lee, D. W. Fahey, A. Skowron, M. R. Allen, U. Burkhardt, Q. Chen, S. J. Doherty, S. Freeman, P. M. Forster, J. Fuglestvedt, A. Gettelman, R. R. De León, L. L. Lim, M. T. Lund, R. J. Millar, B. Owen, J. E. Penner, G. Pitari, M. J. Prather, R. Sausen, & L. J. Wilcox. The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. *Atmospheric Environment*, 2021. Link. 4
- A. Pekanov & M. Schratzenstaller. A Global Financial Transaction Tax Theory, Practice and Potential Revenues, 2019. Link. 3
- G. Zucman. A blueprint for a coordinated minimum effective taxation standard for ultrahigh-net-worth individuals. 2024. 3