
Supplementary information

Global carbon inequality over 1990–2019

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Global Carbon Inequality over 1990-2019

Supplementary Information (SI)

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1 Global emissions estimates between 1990 and 2019

The full methodology followed to produce GHG emissions estimates, including carbon embedded in imports and exports of goods and services, by country and institutional sector of the economy (Government, Households, Investments), is detailed in Burq and Chancel[1] Aggregate carbon footprints on WID.world, WID.world Working Paper 2021/3. In summary, our approach consists in using Global Carbon Project (GCP) [2] estimates as much as possible. GCP estimates are based on a Global Multiregional Input Output model. I complement these estimates with other datasets, when necessary. In particular, I mobilize the EORA data tables [3] to determine non-CO2 GHG emissions estimates by country and by institutional sector, an information not available from GCP.

Figure 1.1 presents the basic framework of Input-Output data tables in a two countries, two institutional sectors and two industrial sectors context.

Inter-industry transactions ("Z")						Final demand ("Y")				Gross output
		Country 1		Country 2		Country 1		Country 2		
		Sector 1	Sector 2	Sector 1	Sector 2	HHs	Govt	HHs	Govt	
Country 1	Sector 1	340	150	100	154	150	150	300	160	1504
	Sector 2	354	200	200	600	200	400	300	200	2454
Country 2	Sector 1	300	200	300	60	100	200	290	500	1950
	Sector 2	50	250	427	200	35	400	300	200	1862

Country 1 sector 1 imported 354 from Country 1 Sector 2

Value Added = Sum of Final demands			
Country 1	Value Added	460	1654
Country 2	Value Added	923	848

Total input (x)				
Input by country-sector	1504	2454	1950	1862

Carbon emissions ("Q")				
Direct Emissions (CO2)	200	300	200	400

Figure 1.1
Input-Output tables: basic framework

To obtain the carbon footprint in a given country associated to the final demand of its institutional sectors from various industrial or service sectors, let us define Z as the inter-industry transaction matrix representing trade of sector i in region r into sector j in region s . Y as the final demand matrix, Q as the carbon emissions matrix and x as the vector of total input by country-sector. Leontief's inverse [4] (impact of final demand on sectors' output) is given by:

$$L = (I - A)^{-1} \quad (1)$$

A is the technical coefficients matrix, with each coefficient given by:

$$a_{ij}^{rs} = z_{ij}^{rs} / x_j^s \quad (2)$$

The carbon intensity of production of sector j in country s is given by:

$$c_j^s = q_j^s / x_j^s \quad (3)$$

$\mathbf{c}$ is diagonalized into $\hat{c}$, the net carbon emissions (E) associated to final demand (Y) is then given by:

$$E = \hat{c}LY \quad (4)$$

The IO framework makes it possible to calculate E for the government sector (S.13 in the National Accounts [5]), the household sector (S.14) and separately for Gross Fixed Capital Formation (P.51) (it is also possible to recover Net Fixed Capital Formation, P.51n).¹ For each of these "institutional" sectors, emissions can be calculated for each production sector (construction, food, etc.). In that sense, we are able to isolate emissions which enter the production chain of goods and services consumed by households and government and to also isolate emissions associated with the production of fixed capital by the private or government sector, i.e. with private or public investments. For each production sector and each institutional sector, within each country and year, it is possible to obtain different average emissions intensities per dollar spent.

Note that "changes in inventories and stocks" are included in GFCF totals so as to keep fully consistent data sets that always match aggregate totals, doing so does not affect our key results as these changes are typically marginal. Emissions of non-profit institution serving households are included in the household sector.

SI Table 1 presents total GHG emissions by institutional sector (households, government, investments) over the 1990-2019 period. Overall emissions rose from 30.5GtCO₂ in 1990 to 45.8GtCO₂ in 2019. While a quarter of global emissions were associated with gross fixed capital formation in 1990, this share rose to 31.9% in 2019, reflecting a faster increase in investments over the period. In 2019, global emissions due to household private consumption still represent more than half of all emissions.

Table 1.1
Global emissions, 1990-2019

Year	Total (GtCO ₂ e)	HHs (GtCO ₂ e)	Invest (GtCO ₂ e)	Govt. (GtCO ₂ e)	HHs (% total)	Invest (% total)	Govt (%total)
1990	30.5	17.6	7.8	4.3	57.7%	25.6%	14.1%
1991	30.4	17.5	7.8	4.3	57.6%	25.7%	14.1%
1992	30.1	17.3	7.6	4.2	57.5%	25.2%	14%
1993	30.3	17.3	7.9	4.3	57.1%	26.1%	14.2%
1994	30.5	17.4	8.1	4.1	57%	26.6%	13.4%
1995	31.1	17.8	8.4	4.1	57.2%	27%	13.2%
1996	31.9	18.5	8.1	4.3	58%	25.4%	13.5%
1997	31.9	18.2	8.9	3.9	57.1%	27.9%	12.2%
1998	31.7	18.4	8.3	4.1	58%	26.2%	12.9%
1999	32.1	18.7	8.4	4.1	58.3%	26.2%	12.8%
2000	32.8	19.2	8.5	4.1	58.5%	25.9%	12.5%
2001	33	19.1	8.6	4.3	57.9%	26.1%	13%

¹ Note that benchmark distributional estimates presented in the main paper and in sections 5-7 of this document are based on the distribution of emissions associated to P.51. Table 7.7 also presents results when focusing solely on P.51n. The use of P.51 as the benchmark is motivated by the fact that owners of the capital stock make decisions about the formation of new capital as much as about the replacement of old one. There are more or less carbon intensive ways to replace depleted capital, as much as their are more or less carbon intensive ways to form new capital. Put differently, as long as we accept the principle of attributing investment related emissions to capital owners, it seems illogical to attribute them only the net fraction of P.51.

Table 1.1
Global emissions, 1990-2019

Year	Total (GtCO ₂ e)	HHs (GtCO ₂ e)	Invest (GtCO ₂ e)	Govt. (GtCO ₂ e)	HHs (% total)	Invest (% total)	Govt (%total)
2002	33.6	19.4	8.8	4.4	57.7%	26.2%	13.1%
2003	35	20	9.1	4.8	57.1%	26%	13.7%
2004	36.5	20.5	9.8	5	56.2%	26.8%	13.7%
2005	37.6	21.1	10.1	5.2	56.1%	26.9%	13.8%
2006	38.6	21.4	10.8	5.1	55.4%	28%	13.2%
2007	39.6	21.7	11.5	5.1	54.8%	29%	12.9%
2008	40.3	21.9	11.9	5.2	54.3%	29.5%	12.9%
2009	39.8	21.5	11.6	5.4	54%	29.1%	13.6%
2010	41.6	22.2	12.3	5.6	53.4%	29.6%	13.5%
2011	42.8	22.8	13	5.6	53.3%	30.4%	13.1%
2012	43.6	23.1	13.4	5.7	53%	30.7%	13.1%
2013	43.8	23.1	13.5	5.8	52.7%	30.8%	13.2%
2014	44.1	23.2	13.8	5.7	52.6%	31.3%	12.9%
2015	44.3	23.1	14	5.7	52.1%	31.6%	12.9%
2016	44.3	23.2	14	5.7	52.4%	31.6%	12.9%
2017	44.9	23.5	14.2	5.7	52.3%	31.6%	12.7%
2018	45.8	23.9	14.6	5.8	52.2%	31.9%	12.7%
2019	45.8	23.9	14.6	5.8	52.2%	31.9%	12.7%
2020	43.4	22.5	14	5.5	51.8%	32.3%	12.7%

Notes: The table presents total GHG emissions from institutional sectors at the global level. Numbers include all emissions except from LULUCF. Sources and series: Author, see [1]

2 Aggregate and average emissions estimates by region

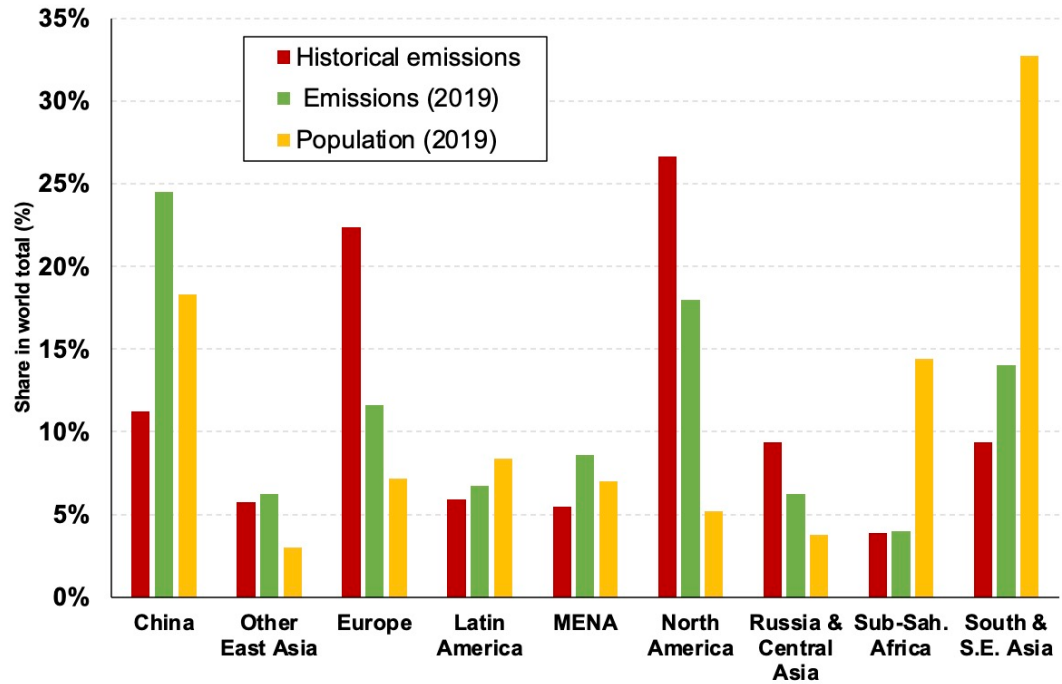


Figure 2.1
Historical emissions share by world region (1850-2020)

Notes: China's share in world historical emissions since 1850 is 11% whereas its share in current emissions is 24%. Current emissions include carbon embedded in consumption (see section 1 **Sources and series:** Author based on Global Carbon Project and EORA after 1990 (See Section 1) and PRIMAP-hist before 1990[6].

Table 2.1
Emissions per capita by world region, 2019

	Carbon footprint			
	(tCO ₂ e per capita)	(× global average)	(× 1.5° budget)	(× 2° budget)
World	6.0	1	3.2	1.2
Sub-Saharan Africa	1.6	0.3	0.9	0.3
South & South-East Asia	2.6	0.4	1.4	0.5
Latin America	4.8	0.8	2.5	1.0
MENA	7.4	1.2	3.9	1.5
East Asia	8.6	1.4	4.5	1.8
Europe	9.7	1.6	5.1	2.0
Russia & Central Asia	9.9	1.6	5.2	2.0
North America	20.8	3.5	10.9	4.2

Notes: Estimates takes into account emissions of all greenhouse gases from domestic consumption, public and private investments as well as net imports embedded in goods and services from the rest of the world. The +2° budget corresponds to an egalitarian distribution across the world population, between now and 2050, of all emissions left to limit temperature increase to +2°C, it is of 4.9 tonne CO₂e per person per year. To stay below +1.5°C, the equitable per capita budget is 1.9 tonne per person per year. **Sources and series:** Author

Table 2.2
Carbon footprints vs. territorial emissions across the world, 2019

	Footprint inc. consumption (tCO₂/capita)	Territorial (tCO₂/capita)	% difference footprint vs. territorial
<i>World</i>	6.0	6.0	0%
Sub Saharan Africa	1.6	2.1	-22%
South South-East Asia	2.6	2.7	-5%
Latin America	4.8	4.9	-2%
Middle East	7.4	8.0	-7%
East Asia	8.6	9.4	-8%
Europe	9.7	7.9	23%
Central Asia / Russia	9.9	11.9	-17%
North America	20.8	19.8	5%

Notes:: Carbon footprints include emissions from domestic consumption, public and private investments as well as net imports embedded in goods and services from the rest of the world. *Source:* Author

3 Global Equally-split Carbon budgets

Global Equally-split Carbon (GEC) budgets are provided in the paper for comparison purposes and to provide readers with orders of magnitude of the climate challenge, under different transparent burden sharing scenarios. This subsection presents how these GEC budgets are constructed and discusses alternative figures to those presented in the main text. These alternative figures take into account historical responsibilities.

1.5°C and 2°C GEC budgets

To date, there are still large uncertainties related to the transient climate response to cumulative carbon emissions (known as TCRE). IPCC SR1.5 and AR6 however made important progress in the understanding of climate response to GHG emissions forcing. Recent research also made it possible to better estimate the impact of historical emissions on global temperature change.

To construct GEC budgets, the paper uses AR6 carbon budgets. According to AR6 (Table SPM.2, p. 41 "Estimates of historical emissions and remaining carbon budgets") there are 300 GtCO₂ left to have 83% chances to stay under +1.5°C and 900 GtCO₂ to stay under +2°C. Using 67% chances, the table indicates that there are 400 GtCO₂ left to stay under 1.5°C and 1150 GtCO₂ to stay under 2°C. These numbers only reflect the remaining CO₂ emissions budget and do not include remaining non-CO₂ gases.

There are even larger uncertainties associated to remaining non-CO₂ budgets than for CO₂ budgets. SR1.5 Report stresses that there can be significant asymmetric impacts of non-CO₂ mitigation pathways on temperature changes and that these changes could modify the CO₂ global remaining budget by +/- 250 GtCO₂. The Report further stresses that *"because the projected changes in non-CO₂ climate forcers tend to amplify future warming, CO₂-only carbon budgets overestimate the total net cumulative carbon emissions compatible with 1.5°C or 2°C (Friedlingstein et al., 2014a; Rogelj et al., 2016b; Matthews et al., 2017; Mengis et al., 2018; Tokarska et al., 2018)"* (SR1.5, chap. 2, p. 104). The Report also notes that recent research *"findings are robust enough to give high confidence that the changing emissions of non-CO₂ forcers [...] cause additional near-term warming and reduce the remaining carbon budget compared to the CO₂-only budget."* (p.106)

While it is difficult to estimate how emissions of non-CO₂ gases impact the overall carbon budget, emission pathways used by IPCC AR WGIII provide some quantitative data about implied non-CO₂ emissions budgets compatible with 1.5° and 2° targets. This information can be added to the CO₂-only budget figures presented in IPCC AR6 Table SPM.2. To obtain implied non-CO₂ budgets between 2020-2050, I use Figures 3.11 and 3.12 of IPCC AR6 WGIII (pp. 29-30). Scenarios with high chances of staying under +1.5°C use non-CO₂ GHG budgets between 2020 and 2050 of ca. 200-250 GtCO₂e. I stress that this is in the lower range of non-CO₂ emission budgets. In other words, the approach I follow is a rather conservative one: it is indeed possible that 1.5° could be attained with higher non-CO₂ emissions budgets between 2020 and 2050. Scenarios with high chances to stay under +2°C are associated with an extra 400-500 GtCO₂e (as for the 1.5°C scenario, this value is obtained from the lower range of scenarios compatible with +2°C). All in all, these values should be interpreted with care, given the vast uncertainties involved in CO₂ and (even more) non-CO₂ available remaining budgets.

I therefore estimate that the overall carbon budget (including CO₂ and non-CO₂ gases) to stay below 1.5°C with a very high level of confidence (83% chances) is therefore of the order of 500 GtCO₂e (300+200 GtCO₂e), while the corresponding budget to stay below 2°C is of 1300 (900+400 GtCO₂e). These values are then divided by the cumulative population projected by the United

Nations between 2020 and 2050, that is ca. 265 million individuals. I find that each individual should be emitting 1.9tCO₂e per year to stay below 1.5°C, in a world where all emissions are split equally among all individuals between 2020 and 2050 (and with zero emissions afterwards). The corresponding figure for 2°C is 4.9tCO₂e.

Let us draw attention to two caveats at this stage: First, it also makes sense to divide the overall carbon budgets by larger population estimates, which span beyond 2050. In which case, available budgets are mechanically lower. I stress that the aim of the current paper is not to discuss at length issues associated with per-capita carbon budget but rather to provide reference points. Second, the values presented above do not reflect historical responsibilities. I provide alternative calculations to show how these can be (at least partially) taken into account (see below).

GES budgets with historical responsibilities

To take historical responsibilities into account, I compute remaining GES budgets, based on how much of the global carbon budget a region has already consumed since 1990 and since 1850. This methodology allocates a quota of emissions to each region, based on its share of the world population between 1990 and 2050, or between 1850 and 2050. It then removes from this quota the emissions that were actually emitted by the region until now and then allocates the remaining emissions (if any) equally to individuals from this region between 2020 and 2050.

Figures 3.1a and 3.1b present the numbers obtained. As expected, GES budgets from low-income regions can be higher when factoring-in historical emissions. GES budgets from North America (in the 1850 and 1990 scenarios) and Europe (in the 1990 scenario) are negative. This means that these regions already emitted more than their share of the global population over the entire period considered (i.e. 1850-2050 or 1990-2050). I stress again that these values are presented for comparative purposes and cannot be interpreted as ready-made schemes to split global carbon budgets in the future.

(a) Responsibilities since 1850

	China	Other East Asia	Europe	Latin America	MENA	North America	Russia Central Asia	Sub Sah. Africa	South South East Asia	World
Total population 1850-2050 (1000s)	158 215 327	29 527 145	84 555 859	56 949 207	46 669 543	39 586 281	38 787 136	95 374 218	219 633 206	769 297 922
Total population 1850-2020 (1000s)	42 013 616	7 324 869	18 947 578	21 180 799	19 502 573	11 903 853	8 556 687	48 730 966	74 960 140	265 000 000
Share in population 1850-2050 (%)	35%	6%	19%	13%	10%	9%	9%	21%	48%	100%
1.5°C target										
GES budget 1850-2050 (GtCO₂e)	1070	200	572	385	315	268	262	645	1485	3076
Actual emissions 1850-2020 (GtCO₂e)	295	149	568	153	143	678	238	99	241	2564
Regional GES left (GtCO₂e)	775	51	4	232	173	-411	24	546	1244	512
Regional per capita GES (tCO₂e/cap)	18.4	6.9	0.2	10.9	8.9	-34.5	2.8	11.2	16.6	1.9
2°C target										
GES budget 1850-2050 (GtCO₂e)	1347	251	720	485	397	337	330	812	1870	3874
Actual emissions 1850-2020 (GtCO₂e)	295	149	568	153	143	678	238	99	241	2564
Regional GES left (GtCO₂e)	1052	103	152	332	255	-341	92	713	1629	1310
Regional per capita GES (tCO₂e/cap)	25.0	14.0	8.0	15.7	13.1	-28.7	10.8	14.6	21.7	4.9

(b) Responsibilities since 1990

	China	Other East Asia	Europe	Latin America	MENA	North America	Russia Central Asia	Sub Sah. Africa	South South East Asia	World
Total population 1990-2050 (1000s)	82 206 343	14 477 138	35 394 634	38 323 956	32 536 305	21 984 041	17 283 735	72 832 829	138 824 749	455 000 000
Total population 2020-2050 (1000s)	42 013 616	7 324 869	18 947 578	21 180 799	19 502 573	11 903 853	8 556 687	48 730 966	74 960 140	265 000 000
Share in population 1990-2050 (%)	18%	3%	8%	8%	7%	5%	4%	16%	31%	100%
1.5°C target										
GES budget 1990-2050 (GtCO₂e)	312	55	135	146	124	84	66	277	528	1729
Actual emissions 1990-2020 (GtCO₂e)	213	94	203	85	87	276	88	45	126	1217
Regional GES left (GtCO₂e)	99	-39	-69	60	36	-192	-22	232	402	512
Regional per capita GES (tCO₂e/cap)	2.4	-5.3	-3.6	2.9	1.9	-16.1	-2.6	4.8	5.4	1.9
2°C target										
GES budget 1990-2050 (GtCO₂e)	457	80	197	213	181	122	96	405	771	2527
Actual emissions 1990-2020 (GtCO₂e)	213	94	203	85	87	276	88	45	126	1217
Regional GES left (GtCO₂e)	244	-13	-6	128	93	-154	8	359	645	1310
Regional per capita GES (tCO₂e/cap)	5.8	-1.8	-0.3	6.0	4.8	-12.9	0.9	7.4	8.6	4.9

Table 3.1

Global Equally-Split budget with historical responsibilities since 1990 and 1850

Notes: the tables show the GES budgets for world region when factoring-in historical emissions over the 1850-2020 period (panel A) and over the 1990-2020 period (panel B). **Sources and series:** Author based on WID.world estimates, Global Carbon Budget, EORA and UN Population Statistics.

4 Income and wealth inequality series across countries, 1990-2019

The Distributional National Accounts (DINA) methodology [7, 8], developed by a large network of researchers affiliated with the World Inequality Database (wid.world), in partnership with national and international statistical organizations, seeks to distribute economic growth to the entire population within a given country, in a systematic and globally comparable way. To do so, the project’s aim is to combine household surveys with additional sources of information on economic inequality (including, in particular, administrative tax data and national accounts, as well as, when available rich lists and data from financial ”leaks”).

On the one hand, tax data offer a more reliable account of income and wealth dynamics among wealthy groups than those reported by individuals in household surveys, and they enable long term comparisons, spanning decades (even centuries, in some countries). On the other hand, using national accounts concepts makes it possible to compare income and wealth levels and dynamics more systematically across countries.

This body of work revealed that most societies went through a decline in inequality between the 1920s and the 1970s and then saw a return of inequality since the 1980s [9]. While such dynamics can have important impacts on the inequality of carbon emissions, the connections between income, consumption, wealth and GHG emissions have attracted limited attention to date. [10] use a very preliminary version of the World Inequality Database and focus on the 1998-2013 period, that is just half of the period of this study. More recent work by Bruckner et al. [11] focuses on a single year and authors stress that their estimates do not cover the emissions of top income groups particularly well as they rely on household surveys only.

The paper mobilizes income and wealth inequality data from the World Inequality Database (WID.world). WID.world is based on the systematic combination of tax data, household survey data and national accounts. Income inequality estimates are available for all countries in the world for the entire period considered. Estimates of income inequality refer to the distribution of income after the operation of pension and unemployment insurance systems, and before the operation of other taxes and transfers. The full set of methods followed to construct these estimates is available online at WID.world and in Blanchet, T., Chancel, L., Flores, I., Morgan, M., et al. (2021) [8].

Wealth inequality estimates are also available on WID.world, for all countries in the world between 1995 and 2021. Between 1990 and 1995, estimates are available for a large set of countries and when no data is available, the paper assumes that wealth inequality follows the same trend as income inequality over this five-year interval. The methodology followed to construct global wealth inequality estimates is available Bauluz et al. (2021) [12] and Bajard, Chancel, Piketty and Moshrif (2021) [13].

Inequality estimates on WID.world are provided for each country and each year in the form of 127 generalized-percentiles (i.e. 99 bottom fractiles representing each 1% of the population, 9 fractiles representing 0.1% of the population, 9 fractiles representing 0.01% of the population and 10 fractiles representing 0.001% of the population). This level of granularity is rendered possible by the use of administrative data, combined with household surveys and national accounts.

SI Table 9 present key inequality, demographic economic indicator for the full set of countries used in the analysis.

5 Relationship between income, expenditure, energy consumption and carbon emissions

A multiple elasticity model

Average per capita emissions at percentile p , E_p , in a given year and country are defined as:

$$E_p^{tot} = E_p^{cons} + E_p^{inv} + E_p^{gov} \quad (5)$$

Where E_p^{cons} , E_p^{inv} , E_p^{gov} are individual average footprints at percentile p , associated to consumption, private investment and public spending, respectively. More precisely:

$$E_p^{cons} = f(E^{cons}, Y_p, \alpha) \quad (6)$$

$$E_p^{inv} = f(E^{inv}, W_p, \gamma) \quad (7)$$

$$E_p^{gov} = f(E^{gov}, y_p, \delta) \quad (8)$$

Where E^{cons} is the average carbon footprint associated to consumption in the country, Y_p the average income level of individuals in percentile p , α the elasticity of household consumption carbon emissions to income (in a model of the form $E_p^{cons} = kE^{cons} \times Y_p^\alpha$); E^{inv} is the average emissions level associated to investments (or asset ownership, in our framework), γ the elasticity of wealth to investment emissions; E^{gov} is the average emission level of the government sector (associated to in-kind redistribution) and δ , is the elasticity of government emissions to income.

Parameter values

Emissions from household consumption: Benchmark estimates are produced using elasticities which vary from country to country. These estimates are presented in Table 5 and based on latest country-level results. When available, I use income elasticity values from recent papers in the literature. In several cases, I only observe consumption elasticities. In order to recover income elasticities from consumption elasticities in such cases, I predict observed income elasticities on observed consumption elasticities and predict income elasticities when only consumption elasticities are available, using a regression setup ($e_y = \beta \times e_c + k$). Predicted values fall in the $[0.43, 0.80]$, with a mean of 0.65. Most income elasticities fall in the 0.55-0.75 range, see Table 5, last column. To test a variety of possible relationships between income and emissions, I also produce results with the full range of parameters for all countries, that is with $\alpha = \{0.4; 0.5; 0.6; 0.7; 0.8\}$.

Emissions from capital formation: In the central scenario, the choice of $\gamma=1$ is motivated by available though limited evidence on the relationship between the carbon content of assets and income. Recent work [14] finds that elasticities of the carbon content of wealth in France and Germany are close to unity. More precisely, ref. [14] find that the elasticity of the carbon content of wealth is around 1.1 and 0.95 in France and Germany, respectively. Another study by ref. [15], which does not measure elasticity values per se but makes it possible to recover them, gives similar values (the elasticity is slightly above unity). Given the limited amount of estimates on the elasticity of emissions to investments for other countries, I use $\gamma=1$ as a benchmark and provide results for additional parameters, i.e. $\gamma = \{0.9; 1; 1.1\}$. I also test wider ranges (0.8 or 1.2) and find that these

choices do not modify the key conclusions of the paper. All in all, the benchmark value can be seen as a transparent and plausible allocation rule for investment-related emissions. Under this rule, a group owning $x\%$ of the total capital stock is attributed $x\%$ of total emissions associated with capital formation. Indeed, more work needs to be done to better understand the relationship between investment emissions and wealth or income.

Given the absence of a global database on the distribution of investments or savings rates by income group and over time, the best available proxy is a database on the distribution of personal wealth, which is available from the World Inequality Database [8]. Available data shows that savings can indeed be even more concentrated than personal wealth. In the US, over the 1986-2012 period, close to the totality of savings were concentrated among the top 10% of the population. Benchmark estimates presented in the paper should therefore be seen as conservative, i.e. they tend to underestimate investment-related carbon emissions of the wealthy rather than overestimate them.

How could capital gains and real-estate price bubble affect the dynamics presented in the paper? In the case of capital gains, data from the US shows that capital gains have been roughly distributionally neutral between 1990 and 2010: “Asset price effects were positive across the distribution, but roughly neutral. These results underscore that the key drivers of the rise in wealth inequality have been the surge in income inequality combined to an increase in saving rate inequality—and in particular the collapse of the saving rate of the bottom 90%.” [16] These results suggest that using personal wealth instead is unlikely to artificially overestimate the contribution of top groups to investment-related emissions.

Regarding real-estate price increases, earlier work has shown that such dynamics have tended to benefit the middle class relatively more than the very top of the distribution, at least as it was observed in France or in the UK over the past decades. This is because the middle class typically owns more real estate, as a share of its total wealth, than the very top [9]. In such cases, the paper’s benchmark assumptions may slightly overestimate middle class investment-related emissions and under estimate investment-related emissions of wealthier groups.

Emissions from government spending: In the central scenario, $\delta = 0$. This convention has been used in other global inequality distribution exercises (see ref. [17] for e.g.). This implies that government emissions are allocated as a lump-sum to individuals. This choice has also been used in global inequality analysis (see for instance [18] who discuss $\delta = 0$ and other options for the comparison of inequality levels in Europe and the US) and corresponds to known patterns of government spending for in-kind social transfers in countries like France (see [19]). In countries with very little transfers (i.e. developing countries) opting for $\delta = 0$ essentially means that we are allocating collective consumption expenditures (road constructions, schools, military spending) on a lump-sum basis, which is an acceptable convention. I stress here that a different choice would mechanically increase the level of within-country inequalities, and would also increase the rise of inequalities over the period (as income inequality has been growing). The benchmark scenario should therefore be seen as a conservative choice. Indeed, an opposite alternative would be to set $\delta = 1$, which means that government emissions (and government spending) are proportional to individuals’ income. This alternative can be seen as extreme as compared to what is known about the structure of government transfers.

Benchmark scenario: the benchmark scenario which I opt for in the study therefore has country-specific values, $\gamma = 1$, $\delta = 0$. This means in effect that elasticity is not constant and non-linear across the income spectrum. In many ways, this model seems more accurate than earlier single and constant elasticity models. Overall, the central scenario should be seen as a conservative realistic

scenario, i.e. it is grounded in empirical evidence and if anything, it tends to minimize carbon inequalities within countries rather than the opposite.

SI Table 5 presents α values found in the literature for different countries and years. The benchmark results presented in this paper use elasticities from column 6 of this table.

Table 5.1
Income-emissions and consumption-emissions elasticities across the world, 1988-2019

Country	Period	Scope	Reference	Expenditure elasticity	Income elasticity
Afghanistan	2014	CO2	[11]	1.117	.7*
Albania	2014	CO2	[11]	1.101	.68*
Angola	2014	CO2	[11]	1.112	.69*
Armenia	2014	CO2	[11]	1.114	.69*
Australia	1993-1994	GHG	[21]	.7	.55
Austria	2014	CO2	[11]	1.087	.68*
Azerbaijan	2014	CO2	[11]	1.114	.69*
Bangladesh	2014	CO2	[11]	1.101	.68*
Belarus	2014	CO2	[11]	.845	.51*
Belgium	2014	CO2	[11]	1.005	.52*
Belgium	2014	GHG	see [20]	.8	.47
Belgium (Flanders)	2010	GHG	[20, 22]	.84	.52
Benin	2014	CO2	[11]	1.001	.61*
Bhutan	2014	CO2	[11]	1.074	.67*
Bolivia	2014	CO2	[11]	1.021	.63*
Bosnia and Herzegovina	2014	CO2	[11]	.896	.54*
Brazil	2014	CO2	[11]	.875	.53*
Bulgaria	2014	CO2	[11]	1.088	.68*
Burkina Faso	2014	CO2	[11]	1.154	.72*
Burundi	2014	CO2	[11]	1.198	.75*
Cabo Verde	2014	CO2	[11]	1.094	.68*
Cambodia	2014	CO2	[11]	1.155	.72*
Cameroon	2014	CO2	[11]	1.071	.66*
Chad	2014	CO2	[11]	.995	.61*
China	2005	CO2	[20, 23]	.83	.74
China	2007	CO2	[20, 24]	.95	.84
China	2012	CO2	[20, 24]	.93	.76
China	2014	CO2	[11]	.958	
Colombia	2014	CO2	[11]	1.012	.62*
Congo	2014	CO2	[11]	1.068	.66*
Cote d'Ivoire	2014	CO2	[11]	.994	.61*
Croatia	2014	CO2	[11]	.987	.6*
Cyprus	2014	CO2	[11]	1.012	.62*
Czech Republic	2010	GHG	see [20]	.81	.59
Czech Republic	2014	CO2	[11]	1.024	.59*
DR Congo	2014	CO2	[11]	1.208	.76*
Denmark	1995	CO2	[20, 25]	.9	.51
Denmark	2014	CO2	[11]	.957	.58*
Egypt	2014	CO2	[11]	1.046	.65*
El Salvador	2014	CO2	[11]	.746	.44*
Estonia	2014	CO2	[11]	1	.61*
Ethiopia	2014	CO2	[11]	1.064	.66*

Table 5.1
Income-emissions and consumption-emissions elasticities across the world, 1988-2019

Country	Period	Scope	Reference	Expenditure elasticity	Income elasticity
Fiji	2014	CO2	[11]	1.154	.72*
Finland	2006	GHG	[20, 26]	.8	.61
Finland	2012	GHG	[20, 27]		.68
Finland	2014	CO2	[11]	1.017	.56*
Finland (Helsinki)	2006	GHG	[20, 28]	.93	.61
Finland (Helsinki)	2012	GHG	[20, 28]	.89	.56
France	2005	CO2	[20, 29]	.82	.62
France	2010	GHG	[20]		.54
France	2010	GHG	[20]	.86	.53
France	2014	CO2	[11]	1.038	.6*
Gabon	2014	CO2	[11]	1.037	.64*
Gambia	2014	CO2	[11]	.965	.59*
Georgia	2014	CO2	[11]	1.088	.68*
Germany	2013	GHG	[20, 30]		.56
Germany	2013	GHG	[20, 31]	1.04	.58
Germany	2014	CO2	[11]	1.011	
Germany (West)	1988	CO2	[20, 32]		.8
Ghana	2014	CO2	[11]	1.031	.64*
Greece	2014	CO2	[11]	.949	.58*
Guatemala	2014	CO2	[11]	.95	.58*
Guinea	2014	CO2	[11]	1.101	.68*
Haiti	2014	CO2	[11]	1.107	.69*
Honduras	2014	CO2	[11]	1.061	.66*
Hungary	2014	CO2	[11]	1.06	.66*
India	1989-1990	CO2	[20, 33]	1.1	
India	2003-2004	CO2	[20, 34]	1.04	.86
India	2014	CO2	[11]	1.143	.71*
Indonesia	2005	CO2	[20, 35]	1.13	.65*
Indonesia	2009	CO2	[20]	1	.65*
Indonesia	2014	CO2	[11]	1.056	.65*
Iraq	2014	CO2	[11]	1.003	.62*
Ireland	2014	CO2	[11]	1.024	.63*
Italy	2014	CO2	[11]	1.076	.67*
Jamaica	2014	CO2	[11]	1.07	.66*
Jordan	2014	CO2	[11]	1.005	.62*
Kazakhstan	2014	CO2	[11]	1.03	.64*
Kenya	2014	CO2	[11]	1.052	.65*
Kyrgyzstan	2014	CO2	[11]	1.138	.71*
Lao PDR	2014	CO2	[11]	1.19	.75*
Latvia	2014	CO2	[11]	1.063	.66*
Lesotho	2014	CO2	[11]	1.076	.67*
Liberia	2014	CO2	[11]	1.148	.72*

Table 5.1
Income-emissions and consumption-emissions elasticities across the world, 1988-2019

Country	Period	Scope	Reference	Expenditure elasticity	Income elasticity
Lithuania	2014	CO2	[11]	1.101	.68*
Luxembourg	2014	CO2	[11]	.992	.61*
Macedonia	2014	CO2	[11]	1.145	.72*
Madagascar	2014	CO2	[11]	1.093	.68*
Malawi	2014	CO2	[11]	1.052	.65*
Maldives	2014	CO2	[11]	1.022	.63*
Mali	2014	CO2	[11]	1.055	.65*
Malta	2014	CO2	[11]	.988	.61*
Mauritania	2014	CO2	[11]	1.228	.77*
Mauritius	2014	CO2	[11]	1.057	.65*
Mexico	2014	CO2	[11]	.952	.58*
Moldova	2014	CO2	[11]	1.092	.68*
Mongolia	2014	CO2	[11]	.978	.6*
Montenegro	2014	CO2	[11]	1.069	.66*
Morocco	2014	CO2	[11]	.967	.59*
Mozambique	2014	CO2	[11]	1.097	.68*
Namibia	2014	CO2	[11]	1.048	.65*
Nepal	2014	CO2	[11]	1.044	.64*
Netherlands	2000	GHG	[36]	.84	.6*
Nicaragua	2014	CO2	[11]	1.152	.72*
Niger	2014	CO2	[11]	1.252	.79*
Nigeria	2014	CO2	[11]	1.001	.61*
Norway	1999-2001	CO2	[37]	.91	.65*
Norway	2007	CO2	[38]	.99	.65*
Norway	2012		[39]	1.14	1.04
Pakistan	2014	CO2	[11]	1.098	.68*
Panama	2014	CO2	[11]	.871	.52*
Papua New Guinea	2014	CO2	[11]	1.173	.74*
Paraguay	2014	CO2	[11]	1.001	.61*
Peru	2014	CO2	[11]	.99	.61*
Philippines	2000	CO2	[40]		.8
Philippines	2014	CO2	[11]	1.179	.74*
Poland	2014	CO2	[11]	1.006	.62*
Romania	2014	CO2	[11]	1.128	.7*
Russian Federation	2014	CO2	[11]	1.052	.65*
Rwanda	2014	CO2	[11]	1.089	.68*
Sao Tome and Principe	2014	CO2	[11]	1.269	.8*
Senegal	2014	CO2	[11]	1.082	.67*
Serbia	2014	CO2	[11]	1.046	.65*
Sierra Leone	2014	CO2	[11]	1.202	.76*
Slovakia	2014	CO2	[11]	1.063	.66*
South Africa	2014	CO2	[11]	.885	.53*

Table 5.1
Income-emissions and consumption-emissions elasticities across the world, 1988-2019

Country	Period	Scope	Reference	Expenditure elasticity	Income elasticity
Spain	1999	CO2	[41]	.84	
Spain	1999	CO2	[20, 41]		.41
Spain	2000	GHG	[42]	.98	
Spain	2000	CO2	[42]	.99	
Spain	2014	CO2	[11]	1.007	.62*
Sri Lanka	2014	CO2	[11]	1.178	.74*
Swaziland	2014	CO2	[11]	.985	.6*
Sweden	2006	GHG	[43]	.83	.65*
Sweden	2014	CO2	[11]	1.046	.65*
Switzerland	2002-2005	CO2	[44]	1.06	.76*
Tajikistan	2014	CO2	[11]	1.175	.74*
Tanzania	2014	CO2	[11]	1.075	.67*
Thailand	2014	CO2	[11]	1.03	.64*
Timor-Leste	2014	CO2	[11]	1.178	.74*
Togo	2014	CO2	[11]	1.062	.66*
Turkey	2014	CO2	[11]	1.005	.62*
USA	1996	CO2	[20, 45]	.81	.39
USA	1996	GHG	[20, 45]	.8	.38
USA	2004	GHG	[46]	.68	.36
USA	2005	GHG	[20, 47]		.45
USA	2008-2012	GHG	[20, 48]		.34
USA	2009	CO2	[20, 45]	.83	.35
USA	2009	GHG	[20, 49]		.58
USA	2009	GHG	[20, 45]	.82	.34
USA	2012-2014	CO2	see [20]	.82	.31
USA	2012-2014	CO2	[50]	.73	.5*
USA	2014	CO2	[11]	1.007	
Uganda	2014	CO2	[11]	1.08	.67*
Ukraine	2014	CO2	[11]	1.007	.62*
United Kingdom	2004	CO2	[51]		.7
United Kingdom	2004		[20, 52]		.34
United Kingdom	2006	GHG	[20, 53]		.34
United Kingdom	2006-2009	CO2	[54]		.6
United Kingdom	2014	CO2	[11]	1.072	
Viet Nam	2014	CO2	[11]	1.051	.65*
Yemen	2014	CO2	[11]	1.096	.68*
Zambia	2014	CO2	[11]	1.053	.65*

Notes: The table presents elasticity values found in the literature for various countries, periods and concepts. Income elasticity values followed by an asterisk are predicted from consumption elasticities available in the literature and observed regularities between consumption and income elasticities (see Fig. 5.1). For a given country, when there are several income elasticities available, the latest available year is used as the benchmark. **Sources and series:** Author based on [20], [11] and own calculations. When the source refers to [20] and another reference, this means that estimates were calculated by [20] on the basis of the data available in the other source.

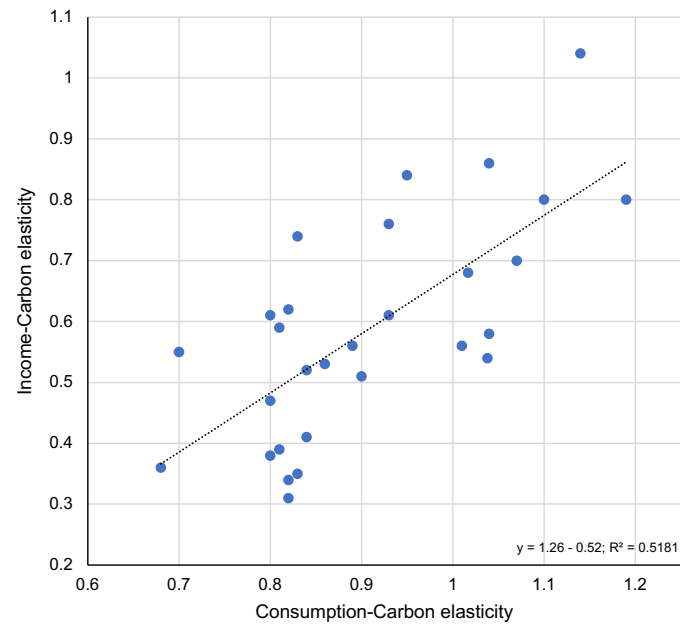


Figure 5.1
Consumption vs. income elasticities
Sources and series: Author, based on Table 5.

6 Summary inequality measures and supplementary results

Table 6.1
Inequality and global emissions growth, 1990-2019

	Total emissions		Emissions growth			
	1990	2019	1990-2019			
	(GtCO ₂ e)	(GtCO ₂ e)	(Δ GtCO ₂ e)	(Total growth)	(Per cap. growth)	(Share in total growth)
Full pop.	30.5	45.8	15.3	50.2%	2.3%	100%
Bottom 50%	2.9	5.3	2.4	82.8%	26%	15.8%
<i>incl. Bottom 20%</i>	.6	1.1	.5	83.3%	22%	3%
<i>incl. Next 30%</i>	2.3	4.2	2	82.6%	27%	12.8%
Middle 40%	12.8	18.5	5.7	44.5%	-1.2%	37.5%
Top 10%	14.9	22	7.1	47.7%	.9%	46.6%
<i>incl. Top 1%</i>	4.2	7.7	3.6	83.3%	26.1%	23.2%
<i>incl. Top 0.1%</i>	1.5	3.3	1.7	120%	45%	11.3%
<i>incl. Top 0.01%</i>	.7	1.8	1.1	157.1%	78.5%	7.2%

Notes: Individual carbon footprints include emissions from domestic consumption, public and private investments as well as imports and exports of carbon embedded in goods and services traded with the rest of the world. Modeled estimates based the systematic combination of tax data, household surveys and input-output tables. Benchmark scenario. Emissions split equally within households. **Sources and series:** Author.

Table 6.2
Summary measures of global inequality , 1990-2019

	Theil	Theil	Theil	MLD	Gini	COV
	Theil	Within	Between			
1990	.867	.328	.539	.822	.642	17.3
1991	.854	.331	.523	.807	.637	19.4
1992	.829	.322	.508	.779	.631	10.3
1993	.838	.337	.501	.782	.631	11.4
1994	.87	.35	.52	.822	.64	11.8
1995	.873	.362	.51	.815	.638	12.4
1996	.869	.363	.507	.805	.636	13
1997	.919	.39	.529	.823	.644	17
1998	.908	.377	.532	.821	.644	13.4
1999	.908	.384	.524	.81	.641	14.5
2000	.93	.39	.541	.829	.648	17.5
2001	.916	.392	.523	.813	.643	17.2
2002	.908	.388	.519	.812	.642	15.1
2003	.895	.391	.504	.803	.638	15.2
2004	.908	.409	.499	.81	.639	17.3
2005	.896	.412	.484	.801	.635	16.7
2006	.919	.44	.478	.809	.638	20.1

Table 6.2
Summary measures of global inequality , 1990-2019

	Theil	Theil	Theil	MLD	Gini	COV
	Theil	Within	Between			
2007	.932	.472	.46	.807	.637	25.8
2008	.921	.489	.432	.791	.632	29.1
2009	.862	.471	.391	.75	.617	16.7
2010	.901	.509	.392	.776	.625	25.5
2011	.916	.536	.381	.781	.626	31
2012	.901	.532	.369	.766	.622	28.4
2013	.903	.533	.37	.761	.621	29.2
2014	.912	.548	.364	.755	.62	32.1
2015	.933	.576	.357	.751	.619	41.2
2016	.916	.573	.343	.734	.614	38.8
2017	.915	.575	.34	.731	.613	41.3
2018	.918	.579	.339	.73	.613	41.9
2019	.909	.579	.33	.72	.609	40.7

Notes: The table presents results on different summary measures of global emissions inequality. MLD= Mean Log Deviation. COV=Coefficient of variation. Results presented correspond to the benchmark scenario, i.e. country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. Emissions include GHG net imports of carbon embedded in international trade. Emissions are split equally within households. **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

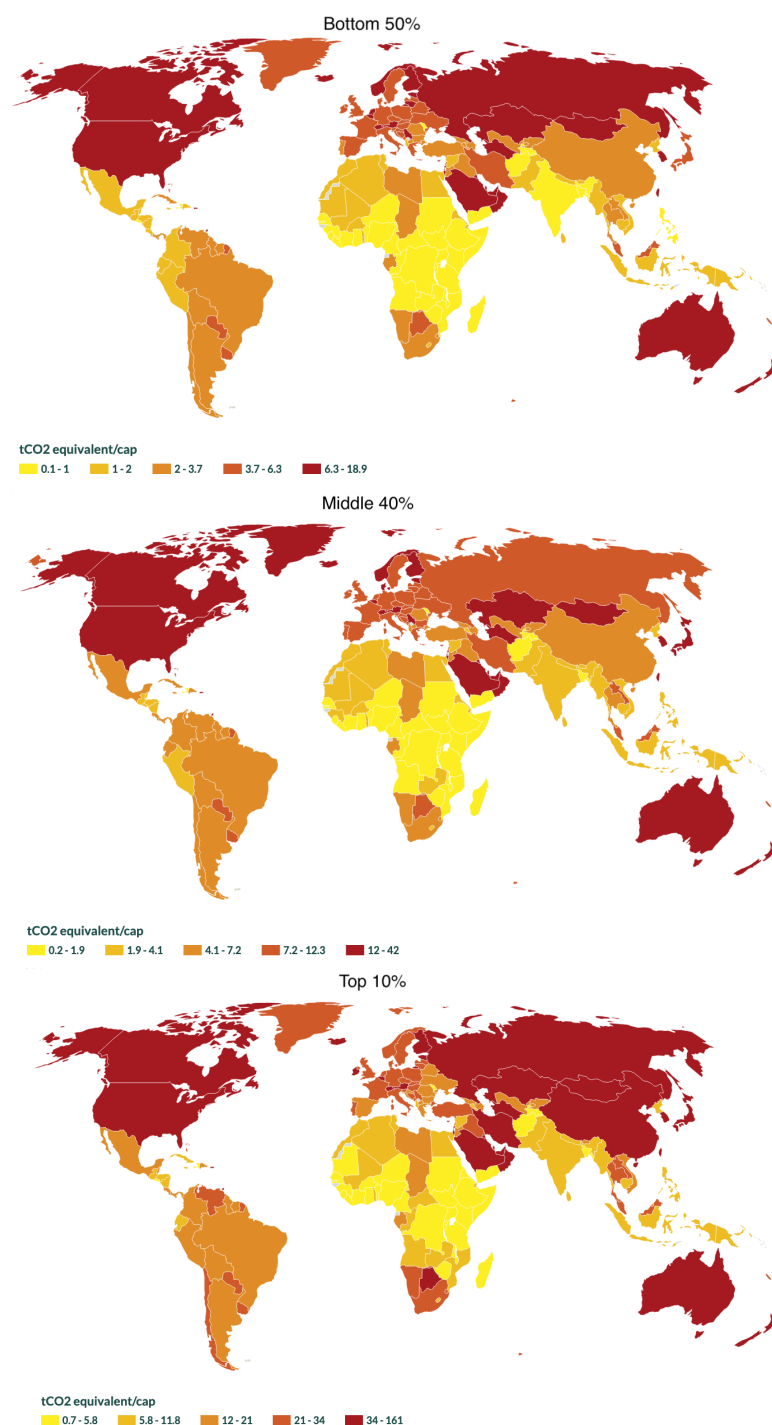


Figure 6.1

Average per capita emissions (tCO₂/year) by income group across the world, 2019

Notes: Individual carbon footprints include emissions from domestic consumption, public and private investments as well as imports and exports of carbon embedded in goods and services traded with the rest of the world. Modeled estimates based the systematic combination of tax data, household surveys and input-output tables. Benchmark scenario. Emissions split equally within households. **Sources and series:** Author. Open source basemap from WID.world, available under Creative Commons Licence CC BY 4.0.

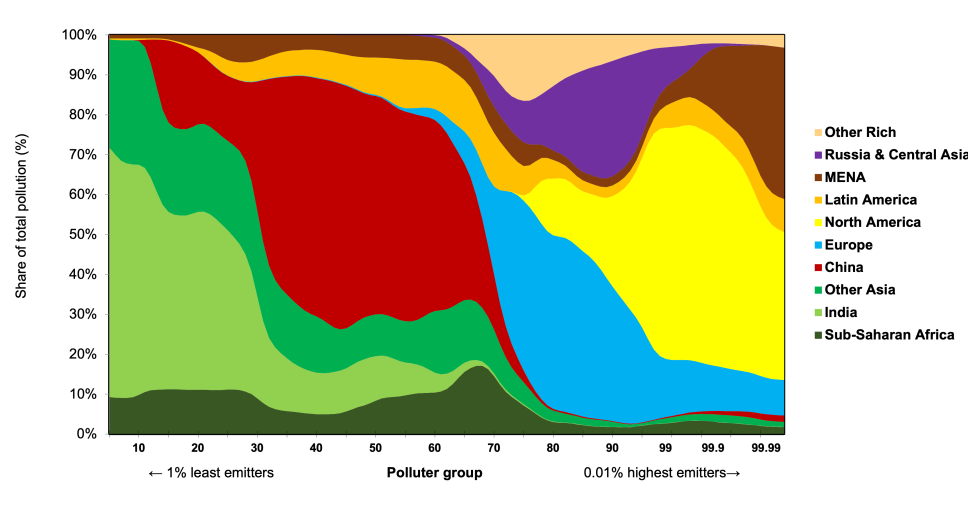


Figure 6.2
Geographical breakdown of global emitters, 1990

Notes: The graph shows, for each percentile of the global distribution, the share of individuals coming from different regions of the world. This graph can be compared with Figure 7B which shows the same breakdown in 2019. Indeed, one can see that China was essentially at the bottom of the global distribution in 1990 and is now spreading from the middle to the very top. The graph also shows that India and Sub-Saharan Africa represent larger shares of the population within the global bottom 50%. This happened not only because Chinese emissions rose relatively faster, but also because population growth was faster in India and Sub-Saharan Africa than in China. Individual carbon footprints include emissions from domestic consumption, public and private investments as well as imports and exports of carbon embedded in goods and services traded with the rest of the world. Modeled estimates based the systematic combination of tax data, household surveys and input-output tables. Benchmark scenario. Emissions split equally within households. **Sources and series:** Author.

7 Results across scenarios

Table 7.1
Summary measures of global inequality across scenarios, 1990-2019

	Scenario	Theil Theil	Theil Within	Theil Between	MLD	Gini	COV
1990	Benchmark	.867	.328	.539	.822	.642	17.3
	Lower ineq.	.802	.263	.539	.748	.622	16.3
	Upper ineq.	.961	.422	.539	.874	.66	21.7
1995	Benchmark	.873	.362	.51	.815	.638	12.4
	Lower ineq.	.798	.288	.51	.733	.614	11.7
	Upper ineq.	.975	.465	.51	.872	.658	15.7
2000	Benchmark	.93	.39	.541	.829	.648	17.5
	Lower ineq.	.849	.308	.541	.744	.623	16.4
	Upper ineq.	1.048	.507	.541	.889	.668	23.8
2005	Benchmark	.896	.412	.484	.801	.635	16.7
	Lower ineq.	.807	.323	.484	.71	.608	15.4
	Upper ineq.	1.012	.528	.484	.863	.656	22.6
2010	Benchmark	.901	.509	.392	.776	.625	25.5
	Lower ineq.	.805	.412	.392	.679	.593	23.9
	Upper ineq.	1.01	.618	.392	.839	.647	30.2
2019	Benchmark	.909	.579	.33	.72	.609	40.7
	Lower ineq.	.806	.476	.33	.621	.574	38.4
	Upper ineq.	1.015	.685	.33	.784	.633	45.9

Notes: The table presents results on different summary measures of global emissions inequality. MLD= Mean Log Deviation. COV=Coefficient of variation. Results presented correspond to the benchmark scenario, i.e. country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. Lower ineq. scenario sets $\alpha=0.4$ for all countries and Upper ineq. scenario sets $\alpha=0.8$ for all countries. By construction, "Theil Between" values do not change across scenarios. Emissions include GHG net imports of carbon embedded in international trade. Emissions are split equally within households. **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
East Asia	1990	Benchmark	1.5	4.1	17.1	58.9
		$\gamma=0.9$	1.6	4.2	16.4	50.3
		$\gamma=1.1$	1.4	3.9	18	73.1
		$\alpha=0.4$	1.7	4	16.1	52.3
		$\alpha=0.5$	1.7	4	16.4	54.8
		$\alpha=0.6$	1.6	4	16.8	57.5
		$\alpha=0.7$	1.5	4	17.1	60.6

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(East Asia)</i>	2000	$\alpha=0.8$	1.5	4	17.5	64.4
		$\delta=1$	1.4	4.1	17.4	60.5
		Benchmark	1.6	4.4	20	65.7
		$\gamma=0.9$	1.7	4.5	19.2	57.1
		$\gamma=1.1$	1.5	4.2	21.2	80.3
		$\alpha=0.4$	1.9	4.4	18.9	58.8
		$\alpha=0.5$	1.8	4.4	19.2	61.6
		$\alpha=0.6$	1.7	4.4	19.7	64.6
		$\alpha=0.7$	1.6	4.3	20.1	68.1
		$\alpha=0.8$	1.5	4.3	20.6	72.4
<i>(East Asia)</i>	2010	$\delta=1$	1.4	4.5	20.7	68.9
		Benchmark	2.5	7.2	32.9	127.4
		$\gamma=0.9$	2.7	7.6	30.2	102.8
		$\gamma=1.1$	2.3	6.7	35.6	158.3
		$\alpha=0.4$	3	7.3	29.9	114.3
		$\alpha=0.5$	2.9	7.3	30.7	118
		$\alpha=0.6$	2.7	7.2	31.7	121.5
		$\alpha=0.7$	2.6	7.1	32.8	126.7
		$\alpha=0.8$	2.4	7	33.9	134.6
		$\delta=1$	2.1	7.3	34.7	133.3
<i>(East Asia)</i>	2019	Benchmark	2.9	7.9	40	149.6
		$\gamma=0.9$	3.1	8.5	36.6	117.5
		$\gamma=1.1$	2.7	7.3	43.5	189.4
		$\alpha=0.4$	3.5	8	36.6	136.6
		$\alpha=0.5$	3.3	8	37.6	139.6
		$\alpha=0.6$	3.1	7.9	38.9	142.7
		$\alpha=0.7$	2.9	7.8	40.4	146
		$\alpha=0.8$	2.8	7.6	41.7	152.4
		$\delta=1$	2.4	8	42.2	154.9
Europe	1990	Benchmark	7.2	15.5	35.3	92.1
		$\gamma=0.9$	7.3	15.7	34	79.1
		$\gamma=1.1$	7.1	15.2	36.8	108.4
		$\alpha=0.4$	7.8	15.4	32.6	81.4
		$\alpha=0.5$	7.5	15.4	33.9	85.9
		$\alpha=0.6$	7.3	15.4	35.3	91.7
		$\alpha=0.7$	7	15.4	36.8	98.5
		$\alpha=0.8$	6.8	15.3	38.5	107
		$\delta=1$	6.5	15.8	37.8	98.6
		Benchmark	6.2	13.8	36.7	107.8
<i>(Europe)</i>	2000	$\gamma=0.9$	6.3	14.1	35	92.1
		$\gamma=1.1$	6.1	13.5	38.5	128.1
		$\alpha=0.4$	6.9	13.9	33.4	96

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)				
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>	
<i>(Europe)</i>	2010		$\alpha=0.5$	6.6	13.9	34.9	101.4
			$\alpha=0.6$	6.3	13.8	36.5	107.7
			$\alpha=0.7$	6	13.7	38.4	115.4
			$\alpha=0.8$	5.7	13.6	40.3	125.2
			$\delta=1$	5.6	14.1	38.8	114.1
		Benchmark	6.1	12.9	33.8	98.2	
			$\gamma=0.9$	6.2	13.2	32.2	83.6
			$\gamma=1.1$	6	12.6	35.6	116.5
			$\alpha=0.4$	6.8	12.9	30.7	86.2
			$\alpha=0.5$	6.4	12.9	32.1	91
			$\alpha=0.6$	6.1	12.9	33.7	97.4
			$\alpha=0.7$	5.9	12.9	35.4	105.3
			$\alpha=0.8$	5.6	12.7	37.3	114.7
			$\delta=1$	5.4	13.2	36.1	104.6
		<i>(Europe)</i>	2019	Benchmark	5	10.7	29.4
Latin America	1990		$\gamma=0.9$	5.1	10.9	27.9	76.7
			$\gamma=1.1$	5	10.4	31	108.4
			$\alpha=0.4$	5.6	10.6	26.6	79.9
			$\alpha=0.5$	5.4	10.7	27.8	84.1
			$\alpha=0.6$	5.1	10.6	29.2	89.5
			$\alpha=0.7$	4.8	10.6	30.6	96.4
			$\alpha=0.8$	4.6	10.5	32.2	104.5
			$\delta=1$	4.5	10.9	31.1	95.6
		Benchmark	1.7	4.1	17.4	70.3	
			$\gamma=0.9$	1.7	4.3	16.5	59.2
			$\gamma=1.1$	1.6	4	18.1	81.9
			$\alpha=0.4$	1.9	4.3	15.5	62.6
			$\alpha=0.5$	1.8	4.2	16.5	66.8
			$\alpha=0.6$	1.6	4.1	17.6	72.2
			$\alpha=0.7$	1.5	4	18.9	79
<i>(Latin America)</i>	2000		$\alpha=0.8$	1.4	3.8	20.2	87.8
			$\delta=1$	1.4	4.2	18.4	73.3
		Benchmark	1.8	4.5	17.6	62.7	
			$\gamma=0.9$	1.8	4.7	16.8	53.4
			$\gamma=1.1$	1.8	4.4	18.3	73.1
			$\alpha=0.4$	2.1	4.7	15.5	53.8
			$\alpha=0.5$	1.9	4.6	16.6	58
			$\alpha=0.6$	1.8	4.5	17.9	63.9
			$\alpha=0.7$	1.6	4.3	19.3	71.4
			$\alpha=0.8$	1.5	4.1	20.8	80.8
			$\delta=1$	1.6	4.6	18.6	65.7
		Benchmark	2.1	4.9	19.3	72.5	
			$\gamma=0.9$	1.8	4.7	16.8	53.4
			$\gamma=1.1$	1.8	4.4	18.3	73.1
			$\alpha=0.4$	2.1	4.7	15.5	53.8
	$\alpha=0.5$	1.9	4.6	16.6	58		
	$\alpha=0.6$	1.8	4.5	17.9	63.9		
	$\alpha=0.7$	1.6	4.3	19.3	71.4		
	$\alpha=0.8$	1.5	4.1	20.8	80.8		
	$\delta=1$	1.6	4.6	18.6	65.7		
<i>(Latin America)</i>	2010	Benchmark	2.1	4.9	19.3	72.5	

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(Latin America)</i>	2019	$\gamma=0.9$	2.1	5.1	18.5	61.4
		$\gamma=1.1$	2.1	4.8	20.1	85.3
		$\alpha=0.4$	2.4	5.1	17.1	63.7
		$\alpha=0.5$	2.2	5	18.3	68.1
		$\alpha=0.6$	2	4.9	19.7	74
		$\alpha=0.7$	1.9	4.7	21.2	82.1
		$\alpha=0.8$	1.7	4.5	22.9	93.1
		$\delta=1$	1.8	5	20.6	76.2
		Benchmark	2	4.8	17.8	66.7
		$\gamma=0.9$	2.1	4.9	17	56.4
		$\gamma=1.1$	2	4.6	18.6	78.2
		$\alpha=0.4$	2.4	4.9	15.7	58.2
		$\alpha=0.5$	2.2	4.8	16.9	62.5
		$\alpha=0.6$	2	4.7	18.2	68.1
		$\alpha=0.7$	1.8	4.6	19.5	75.6
		$\alpha=0.8$	1.7	4.4	21	85.2
		$\delta=1$	1.8	4.8	19	70.4
		Benchmark	1.8	5.3	24.6	87.4
<i>(M. East & N. Africa)</i>	1990	$\gamma=0.9$	1.9	5.4	24	78.7
		$\gamma=1.1$	1.8	5.1	25.4	96.9
		$\alpha=0.4$	2.1	5.5	22.5	74.1
		$\alpha=0.5$	2	5.4	23.4	79.8
		$\alpha=0.6$	1.9	5.3	24.5	87
		$\alpha=0.7$	1.7	5.1	25.9	95.9
		$\alpha=0.8$	1.6	4.9	27.3	106.5
		$\delta=1$	1.6	5.1	26.3	95.9
		Benchmark	1.7	5.1	24	88
		$\gamma=0.9$	1.7	5.2	23.3	78.8
		$\gamma=1.1$	1.7	4.9	24.6	97.4
		$\alpha=0.4$	2	5.3	21.8	75.1
		$\alpha=0.5$	1.9	5.2	22.7	80.2
		$\alpha=0.6$	1.8	5	23.9	87.7
		$\alpha=0.7$	1.6	4.9	25.1	94.9
		$\alpha=0.8$	1.5	4.7	26.6	104.8
		$\delta=1$	1.6	4.9	25.4	94.2
		Benchmark	2.2	6.9	33	116
<i>(M. East & N. Africa)</i>	2010	$\gamma=0.9$	2.2	7.1	32.1	104.2
		$\gamma=1.1$	2.2	6.7	34	130.8
		$\alpha=0.4$	2.5	7.2	30.4	97.3
		$\alpha=0.5$	2.4	7	31.5	105.8
		$\alpha=0.6$	2.2	6.9	32.9	115.6
		$\alpha=0.7$	2.1	6.7	34.3	126.5

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(M. East & N. Africa)</i>	2019	$\alpha=0.8$	1.9	6.5	36.2	140.3
		$\delta=1$	2	6.7	34.8	125
		Benchmark	2.2	7.3	33.7	117.3
		$\gamma=0.9$	2.3	7.5	32.8	105.1
		$\gamma=1.1$	2.2	7.1	34.6	130.9
		$\alpha=0.4$	2.6	7.6	31	100.3
		$\alpha=0.5$	2.4	7.5	32.2	107.4
		$\alpha=0.6$	2.3	7.3	33.6	116.8
		$\alpha=0.7$	2.1	7.1	35.2	127.6
		$\alpha=0.8$	1.9	6.8	37.1	141.1
		$\delta=1$	2	7.1	35.8	127
		Benchmark	13.5	27.2	70.3	214.1
		$\gamma=0.9$	13.7	27.7	67.3	181.5
		$\gamma=1.1$	13.4	26.5	73.6	252.8
		$\alpha=0.4$	14.6	26.8	66.5	199.8
<i>(North America)</i>	1990	$\alpha=0.5$	13.6	27.1	70.3	213
		$\alpha=0.6$	12.8	27.1	74.4	230.2
		$\alpha=0.7$	11.9	27	79.2	253.1
		$\alpha=0.8$	11.1	26.7	84.3	282.2
		$\delta=1$	12.2	28	74	224.7
		Benchmark	13.4	28.4	85.2	284.6
		$\gamma=0.9$	13.6	29.3	81.1	237.8
		$\gamma=1.1$	13.4	27.5	89.1	340.9
		$\alpha=0.4$	14.6	28.2	80.4	266.5
		$\alpha=0.5$	13.5	28.4	85.1	283.7
		$\alpha=0.6$	12.6	28.3	90.3	306.2
		$\alpha=0.7$	11.6	28	96.2	336.4
		$\alpha=0.8$	10.7	27.4	102.6	375.2
		$\delta=1$	12.1	29.2	88.7	294.5
		Benchmark	12	25	75.6	260.2
<i>(North America)</i>	2010	$\gamma=0.9$	12.1	25.8	71.8	215.3
		$\gamma=1.1$	12	24.1	79.2	314.7
		$\alpha=0.4$	13	24.8	71.3	244.3
		$\alpha=0.5$	12.1	24.9	75.3	259.1
		$\alpha=0.6$	11.3	24.9	79.8	278.5
		$\alpha=0.7$	10.5	24.6	85	304.6
		$\alpha=0.8$	9.7	24.1	90.6	338.6
		$\delta=1$	10.5	25.8	80	272.6
		Benchmark	10.4	21.8	68.8	243.8
		$\gamma=0.9$	10.5	22.6	65.3	201.5
		$\gamma=1.1$	10.3	21	72.4	294.3
		$\alpha=0.4$	11.3	21.7	64.9	228.8

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
Russia & Cent. Asia	1990	$\alpha=0.5$	10.5	21.7	68.7	243.2
		$\alpha=0.6$	9.7	21.7	73	262.1
		$\alpha=0.7$	8.9	21.4	77.7	286.4
		$\alpha=0.8$	8.3	20.9	82.8	317.6
		$\delta=1$	9.2	22.4	72.4	254
		Benchmark	8	18	39.7	132.2
		$\gamma=0.9$	8.2	18.4	37.2	106.1
		$\gamma=1.1$	7.8	17.4	43.1	171
		$\alpha=0.4$	8.7	18	36.1	116.2
		$\alpha=0.5$	8.4	18	37.6	122.3
		$\alpha=0.6$	8.1	18	39.1	129.2
		$\alpha=0.7$	7.8	17.9	40.9	138.2
		$\alpha=0.8$	7.4	17.9	42.8	150
		$\delta=1$	7.3	18.3	42.2	140.2
		Benchmark	3.7	8.2	27.3	101.8
		$\gamma=0.9$	3.8	8.4	25.9	84.9
		$\gamma=1.1$	3.6	7.9	28.7	121.1
		$\alpha=0.4$	4.2	8.4	23.4	84.6
		$\alpha=0.5$	4	8.4	24.9	90.2
		$\alpha=0.6$	3.8	8.2	26.5	97.6
<i>(Russia & Cent. Asia)</i>	2000	$\alpha=0.7$	3.5	8.1	28.4	108.1
		$\alpha=0.8$	3.3	7.8	30.6	122.1
		$\delta=1$	3.1	8.2	29.7	110.4
		Benchmark	4.5	10.1	33.3	122.3
		$\gamma=0.9$	4.6	10.5	31.3	101.2
		$\gamma=1.1$	4.4	9.7	34.9	147.5
		$\alpha=0.4$	5	10.4	29.1	103.6
		$\alpha=0.5$	4.8	10.3	30.7	110
		$\alpha=0.6$	4.6	10.2	32.5	118.1
		$\alpha=0.7$	4.3	10	34.4	127.2
		$\alpha=0.8$	4.1	9.7	36.6	140.7
		$\delta=1$	3.9	10.2	36	132
		Benchmark	4.5	10.1	36	148
		$\gamma=0.9$	4.6	10.5	33.9	119.4
		$\gamma=1.1$	4.4	9.6	38.3	184.9
		$\alpha=0.4$	5	10.5	31.6	128.2
		$\alpha=0.5$	4.8	10.4	33.3	134.8
		$\alpha=0.6$	4.6	10.2	35.1	143.4
		$\alpha=0.7$	4.3	10	37.2	154.4
		$\alpha=0.8$	4.1	9.7	39.5	169.3
South & S.-E. Asia	1990	$\delta=1$	3.9	10.1	39.1	157.9
		Benchmark	.6	1.4	5.3	22

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(South & S.-E. Asia)</i>	2000	$\gamma=0.9$	.6	1.4	5.1	19.8
		$\gamma=1.1$	.6	1.3	5.6	25
		$\alpha=0.4$	.7	1.4	4.7	19.2
		$\alpha=0.5$	.7	1.4	4.9	20
		$\alpha=0.6$	.6	1.4	5.1	21.1
		$\alpha=0.7$	.6	1.4	5.4	22.4
		$\alpha=0.8$	.5	1.3	5.7	24
		$\delta=1$	.5	1.4	5.5	22.8
		Benchmark	.6	1.5	6.3	25.5
		$\gamma=0.9$	.7	1.6	6.1	23.1
		$\gamma=1.1$	.6	1.5	6.6	28.9
		$\alpha=0.4$	.8	1.6	5.5	22.2
		$\alpha=0.5$	.7	1.6	5.7	23.2
		$\alpha=0.6$	.7	1.6	6.1	24.4
		$\alpha=0.7$	.6	1.5	6.4	25.9
		$\alpha=0.8$	.6	1.5	6.7	28.2
		$\delta=1$	.6	1.5	6.6	26.4
<i>(South & S.-E. Asia)</i>	2010	Benchmark	.7	1.9	9	35.1
		$\gamma=0.9$	.8	2	8.5	30.2
		$\gamma=1.1$	.7	1.8	9.4	41.6
		$\alpha=0.4$	.9	2	7.7	30.2
		$\alpha=0.5$	.9	2	8.1	31.4
		$\alpha=0.6$	.8	1.9	8.5	33.3
		$\alpha=0.7$	.7	1.9	9	35.8
		$\alpha=0.8$	.7	1.8	9.6	38.7
		$\delta=1$	.7	1.9	9.3	36.3
		Benchmark	1	2.4	11.2	41.1
		$\gamma=0.9$	1	2.5	10.6	35.1
		$\gamma=1.1$	.9	2.3	11.8	49.8
		$\alpha=0.4$	1.2	2.6	9.5	34.8
		$\alpha=0.5$	1.1	2.5	10	36.5
		$\alpha=0.6$	1	2.5	10.6	38.9
		$\alpha=0.7$	1	2.4	11.3	41.9
		$\alpha=0.8$	.9	2.3	12	45.9
Sub-Saharan Africa	1990	$\delta=1$	.9	2.4	11.7	42.6
		Benchmark	.7	2.5	10.1	29.5
		$\gamma=0.9$	.7	2.5	9.9	27.7
		$\gamma=1.1$	.7	2.4	10.2	31.4
		$\alpha=0.4$	.8	2.5	9.1	25.5
		$\alpha=0.5$	.8	2.5	9.5	27.7
		$\alpha=0.6$	.7	2.5	9.9	30
		$\alpha=0.7$	.7	2.4	10.5	32.8

Table 7.2
CO2e emissions across world regions and scenarios, 1990-2019

Region	Year	Scenario	Annual GHG emissions (tCO2e per person)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(Sub-Saharan Africa)</i>	2000	$\alpha=0.8$	.6	2.3	11.2	36.4
		$\delta=1$	.6	2.4	10.7	32.5
		Benchmark	.4	1.7	8.5	28.8
		$\gamma=0.9$	.4	1.7	8.4	27
		$\gamma=1.1$	.4	1.7	8.6	30.6
		$\alpha=0.4$	.5	1.7	7.8	24.3
		$\alpha=0.5$	.5	1.7	8	26.6
		$\alpha=0.6$	.5	1.7	8.3	29.1
		$\alpha=0.7$	.4	1.7	8.7	32
		$\alpha=0.8$	.4	1.6	9.2	35.4
<i>(Sub-Saharan Africa)</i>	2010	$\delta=1$	.4	1.7	8.8	31
		Benchmark	.5	1.7	8.2	29.1
		$\gamma=0.9$	.5	1.8	8.1	27.7
		$\gamma=1.1$	.5	1.7	8.3	30.5
		$\alpha=0.4$	.6	1.8	7.4	25.1
		$\alpha=0.5$	.6	1.8	7.7	27.4
		$\alpha=0.6$	.5	1.8	8.1	30
		$\alpha=0.7$	.5	1.7	8.5	32.7
		$\alpha=0.8$	.4	1.6	9	36.2
		$\delta=1$	.4	1.7	8.5	31.8
<i>(Sub-Saharan Africa)</i>	2019	Benchmark	.5	1.7	7.5	26.8
		$\gamma=0.9$	.5	1.7	7.4	25.4
		$\gamma=1.1$	.5	1.7	7.6	28.3
		$\alpha=0.4$	.6	1.7	6.7	23
		$\alpha=0.5$	.6	1.7	7	25
		$\alpha=0.6$	.5	1.7	7.3	27.3
		$\alpha=0.7$	.5	1.6	7.7	29.9
		$\alpha=0.8$	.4	1.6	8.2	33.1
		$\delta=1$	.4	1.6	7.9	29.5

Notes: The table presents results on different emitter groups' average emissions from different scenarios. The benchmark scenario corresponds to country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. Other scenarios presented are variants, with different α or γ parameters, while using α from Table 5. Emissions include net imports of carbon embedded in international trade. Emissions are split equally within households (See Methods). **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

Table 7.3
Share of emissions by income group across world regions for 3 scenarios, 2019

Region	Scenario	Share of total emissions (%)			
		<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
East Asia	Benchmark	16.8	36.8	46.4	17.4
	Lower ineq. bound	20.3	37.2	42.5	15.9
	Upper ineq. bound	16.1	35.4	48.4	17.7
Europe	Benchmark	26	43.8	30.2	9.3
	Lower ineq. bound	28.9	43.7	27.4	8.2
	Upper ineq. bound	23.6	43.2	33.1	10.7
Latin America	Benchmark	21.7	40.5	37.7	14.2
	Lower ineq. bound	25.2	41.4	33.4	12.4
	Upper ineq. bound	17.8	37.6	44.6	18.1
M. East & N. Africa	Benchmark	15	39.5	45.5	15.8
	Lower ineq. bound	17.2	41.1	41.7	13.5
	Upper ineq. bound	13.1	36.9	50	19
North America	Benchmark	24.9	42	33.1	11.7
	Lower ineq. bound	27.1	41.7	31.2	11
	Upper ineq. bound	19.9	40.3	39.8	15.3
Russia & Cent. Asia	Benchmark	22.7	40.7	36.5	15
	Lower ineq. bound	25.5	42.5	32	13
	Upper ineq. bound	20.8	39.2	40	17.1
South & S.-E. Asia	Benchmark	18.6	37.9	43.6	16
	Lower ineq. bound	23.4	39.7	36.9	13.6
	Upper ineq. bound	17	36.3	46.8	17.9
Sub-Saharan Africa	Benchmark	14.6	40.6	44.8	16
	Lower ineq. bound	17.9	41.8	40.3	13.8
	Upper ineq. bound	12.9	38	49.2	19.8

Notes: The table presents results on different emitter groups' shares in regional total emissions from different scenarios. The benchmark scenario corresponds to country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. The lower inequality bound corresponds to the scenario where $\alpha=0.4$ in all countries and the upper inequality bound corresponds to the scenario where $\alpha=0.8$ in all countries. These two bounds are the extreme values observed in a single country. Emissions include GHG net imports of carbon embedded in international trade. Emissions are split equally within households. **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

Table 7.4
Global share of emissions by group across scenarios, 1990-2019

Year	Scenario	Share of world emissions (%)			
		<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
1990	Benchmark	9.4	41.9	48.7	13.7
	$\alpha=0.4$	10.5	42.8	46.7	12.5
	$\alpha=0.5$	10.1	42.2	47.7	13.2
	$\alpha=0.6$	9.7	41.4	48.9	14.2
	$\alpha=0.7$	9.2	40.6	50.1	15.1
	$\alpha=0.8$	8.8	39.8	51.5	16.3
	$\alpha=0.9$	8.3	38.6	53.1	17.8
	$\alpha=1$	7.8	37.5	54.7	19.5
	$\gamma=0.9$	9.6	42.6	47.8	12.4
	$\gamma=1.1$	9.1	40.9	50	15.8
	$\delta=1$	8.7	40.7	50.7	14.5
2000	Benchmark	9.8	38.4	51.8	16.3
	$\alpha=0.4$	11.2	39.3	49.5	14.9
	$\alpha=0.5$	10.7	38.7	50.6	15.9
	$\alpha=0.6$	10.2	38	51.8	16.8
	$\alpha=0.7$	9.7	37.2	53.1	17.9
	$\alpha=0.8$	9.2	36.3	54.5	19.3
	$\alpha=0.9$	8.6	35.2	56.3	20.9
	$\alpha=1$	8	33.9	58.1	22.9
	$\gamma=0.9$	10.1	39.2	50.7	14.8
	$\gamma=1.1$	9.5	37.5	53	18.3
	$\delta=1$	8.9	37.5	53.6	17.1
2010	Benchmark	10.4	41.1	48.5	16.4
	$\alpha=0.4$	12	42.5	45.5	14.9
	$\alpha=0.5$	11.4	41.8	46.8	15.7
	$\alpha=0.6$	10.8	41	48.2	16.6
	$\alpha=0.7$	10.2	40	49.8	17.7
	$\alpha=0.8$	9.6	38.9	51.5	19.1
	$\alpha=0.9$	8.9	37.6	53.5	20.7
	$\alpha=1$	8.3	36.1	55.7	22.7
	$\gamma=0.9$	10.7	42.5	46.8	14.3
	$\gamma=1.1$	10	39.6	50.4	19.1
	$\delta=1$	9.2	39.9	50.9	17.4
2019	Benchmark	11.5	40.5	48	16.9
	$\alpha=0.4$	13.4	41.8	44.9	15.2
	$\alpha=0.5$	12.7	41.2	46.1	15.9
	$\alpha=0.6$	12	40.5	47.5	16.8
	$\alpha=0.7$	11.3	39.5	49.2	17.8
	$\alpha=0.8$	10.6	38.4	51	19.2
	$\alpha=0.9$	9.8	37.2	53	20.8
	$\alpha=1$	9.1	35.5	55.4	23.1

Table 7.4
Global share of emissions by group across scenarios, 1990-2019

Year	Scenario	Share of world emissions (%)			
		<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
	$\gamma=0.9$	11.9	42.1	46	14.4
	$\gamma=1.1$	11.1	38.7	50.2	20
	$\delta=1$	10.2	39.6	50.2	17.7

Notes: The table presents results on different emitter groups' shares in world total emissions from different scenarios. The benchmark scenario corresponds to country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. Other scenarios presented are variants, with different γ or δ parameters. Emissions include net imports of carbon embedded in international trade. Emissions are split equally within households (See Methods). **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

Table 7.5
Per capita emissions by group, all scenarios, World, 1990-2019

Year	Scenario	Group avg. per capita emissions (tCO ₂ e)			
		<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
1990	Benchmark	1.1	6.1	28.5	80
	$\alpha=0.4$	1.2	6.3	27.3	73.3
	$\alpha=0.5$	1.2	6.2	27.9	77.5
	$\alpha=0.6$	1.1	6.1	28.6	82.8
	$\alpha=0.7$	1.1	5.9	29.3	88.3
	$\alpha=0.8$	1	5.8	30.1	95
	$\alpha=0.9$	1	5.6	31	104
	$\alpha=1$	.9	5.5	32	114.1
	$\gamma=0.9$	1.1	6.2	27.9	72.3
	$\gamma=1.1$	1.1	6	29.3	92.4
	$\delta=1$	1	5.9	29.6	85
2000	Benchmark	1.1	5.2	27.8	87.7
	$\alpha=0.4$	1.2	5.3	26.6	80.2
	$\alpha=0.5$	1.2	5.2	27.2	85.4
	$\alpha=0.6$	1.1	5.1	27.8	90.4
	$\alpha=0.7$	1	5	28.5	96.2
	$\alpha=0.8$	1	4.9	29.3	103.5
	$\alpha=0.9$	.9	4.7	30.2	112.3
	$\alpha=1$	.9	4.6	31.2	123.3
	$\gamma=0.9$	1.1	5.3	27.3	79.5
	$\gamma=1.1$	1	5	28.5	98.1
	$\delta=1$	1	5	28.8	91.9
2010	Benchmark	1.2	6.2	29.2	98.7
	$\alpha=0.4$	1.4	6.4	27.4	89.4
	$\alpha=0.5$	1.4	6.3	28.1	94.3
	$\alpha=0.6$	1.3	6.2	29	99.6
	$\alpha=0.7$	1.2	6	30	106.5
	$\alpha=0.8$	1.2	5.8	31	114.6
	$\alpha=0.9$	1.1	5.6	32.2	124.5
	$\alpha=1$	1	5.4	33.5	136.7
	$\gamma=0.9$	1.3	6.4	28.2	86.2
	$\gamma=1.1$	1.2	5.9	30.3	114.7
	$\delta=1$	1.1	6	30.6	104.5
2019	Benchmark	1.4	6.1	28.7	100.9
	$\alpha=0.4$	1.6	6.2	26.8	91.2
	$\alpha=0.5$	1.5	6.2	27.6	95.2
	$\alpha=0.6$	1.4	6.1	28.4	100.3
	$\alpha=0.7$	1.4	5.9	29.4	106.8
	$\alpha=0.8$	1.3	5.7	30.5	115
	$\alpha=0.9$	1.2	5.6	31.7	124.1
	$\alpha=1$	1.1	5.3	33.2	137.9

Table 7.5
Per capita emissions by group, all scenarios, World, 1990-2019

Year	Scenario	Group avg. per capita emissions (tCO ₂ e)			
		<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
	$\gamma=0.9$	1.4	6.3	27.5	86.3
	$\gamma=1.1$	1.3	5.8	30	119.5
	$\delta=1$	1.2	5.9	30.1	106.1

Notes: The table presents results on different emitter groups' averages emissions from different scenarios. The benchmark scenario corresponds to country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. Other scenarios presented are variants, with different γ or δ parameters. Emissions include net imports of carbon embedded in international trade. Emissions are split equally within households (See Methods). **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

Table 7.6
Share of emissions from investments in total group emissions across scenarios, 1990-2019

Region	Year	Scenario	Emissions from investments in group emissions (%)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
East Asia <i>(East Asia)</i>	1990	Benchmark	24.1	32.8	46.4	66.2
		$\gamma=0.9$	27.2	34.6	43.7	59.2
		$\gamma=1.1$	20.4	29.4	49.9	71.1
		$\alpha=0.4$	21	33.2	49	74.7
		$\alpha=0.5$	21.8	33.1	48.1	71.3
		$\alpha=0.6$	22.7	33.1	47.2	67.9
		$\alpha=0.7$	23.5	33.3	46.2	64.5
		$\alpha=0.8$	24.5	33.5	45.2	60.6
	2000	Benchmark	21.9	30.5	47	64.5
		$\gamma=0.9$	25.7	32.6	44.2	58.9
		$\gamma=1.1$	18	27.4	49.7	69.8
		$\alpha=0.4$	18.7	30.9	49.8	72.1
		$\alpha=0.5$	19.5	30.8	48.9	68.9
		$\alpha=0.6$	20.4	30.9	47.8	65.6
		$\alpha=0.7$	21.3	31	46.7	62.3
		$\alpha=0.8$	22.4	31.2	45.6	58.5
	2010	Benchmark	18.2	34.1	62.9	75.7
		$\gamma=0.9$	22.7	37.5	60.4	71
		$\gamma=1.1$	13.8	29.8	65	79
		$\alpha=0.4$	15	33.6	69.2	84.3
		$\alpha=0.5$	15.9	33.7	67.3	81.7
		$\alpha=0.6$	16.7	34	65.2	79.3
		$\alpha=0.7$	17.6	34.4	63.1	76.1
		$\alpha=0.8$	18.6	35	60.9	71.6
<i>(East Asia)</i>	2019	Benchmark	18.5	35	67.9	79.7
		$\gamma=0.9$	23.6	39	65.6	75.3
		$\gamma=1.1$	13.6	29.9	69.7	84.4
		$\alpha=0.4$	15.3	34.5	74.2	87.3
		$\alpha=0.5$	16.2	34.6	72.3	85.4
		$\alpha=0.6$	17.1	35.1	69.8	83.6
		$\alpha=0.7$	18.3	35.7	67.1	81.7
		$\alpha=0.8$	19.2	36.3	65.1	78.2
	1990	Benchmark	11.2	21.9	39.6	60.3
		$\gamma=0.9$	12.7	22.9	37	54.1
		$\gamma=1.1$	9.7	20.6	42.4	66.5
		$\alpha=0.4$	10.4	21.9	43	68.3
		$\alpha=0.5$	10.7	21.9	41.4	64.7
		$\alpha=0.6$	11.1	22	39.7	60.6
		$\alpha=0.7$	11.5	22	38.1	56.4
		$\alpha=0.8$	12	22.2	36.4	51.9
<i>(Europe)</i>	2000	Benchmark	6.1	20.6	46.4	66.6

Table 7.6
Share of emissions from investments in total group emissions across scenarios, 1990-2019

Region	Year	Scenario	Emissions from investments in group emissions (%)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(Europe)</i>	2010	$\gamma=0.9$	7.7	22.3	43.6	60.6
		$\gamma=1.1$	4.8	18.6	49	71.2
		$\alpha=0.4$	5.6	20.6	51	74.7
		$\alpha=0.5$	5.8	20.6	48.8	70.7
		$\alpha=0.6$	6.1	20.6	46.6	66.6
		$\alpha=0.7$	6.4	20.8	44.4	62.2
		$\alpha=0.8$	6.7	21	42.2	57.3
		Benchmark	5.9	20.2	46	64.6
	2019	$\gamma=0.9$	7.4	21.9	43.3	58.5
		$\gamma=1.1$	4.6	18.2	48.6	70.5
		$\alpha=0.4$	5.4	20.3	50.7	73.7
		$\alpha=0.5$	5.6	20.2	48.4	69.7
		$\alpha=0.6$	5.9	20.3	46.2	65.2
		$\alpha=0.7$	6.2	20.4	44	60.3
		$\alpha=0.8$	6.5	20.6	41.7	55.3
		Benchmark	6.1	21.1	47.9	66.9
Latin America	1990	$\gamma=0.9$	7.7	23.1	45	60.7
		$\gamma=1.1$	4.7	18.8	50.5	72.7
		$\alpha=0.4$	5.5	21.2	52.8	75.9
		$\alpha=0.5$	5.8	21.1	50.5	72.1
		$\alpha=0.6$	6	21.2	48.2	67.8
		$\alpha=0.7$	6.4	21.2	46	62.9
		$\alpha=0.8$	6.7	21.4	43.7	58.1
		Benchmark	4	12.1	45.3	69.7
	2000	$\gamma=0.9$	6	15	43.1	63.9
		$\gamma=1.1$	2.5	9.1	47.2	73.6
		$\alpha=0.4$	3.5	11.7	50.7	78.2
		$\alpha=0.5$	3.8	11.8	47.6	73.3
		$\alpha=0.6$	4.1	12.1	44.6	67.8
		$\alpha=0.7$	4.5	12.5	41.6	62
		$\alpha=0.8$	4.9	13.1	38.9	55.8
		Benchmark	3.3	13.7	41.3	63.3
	2010	$\gamma=0.9$	4.8	16.2	39	57.6
		$\gamma=1.1$	2.2	10.8	43.5	68.2
		$\alpha=0.4$	2.9	13.2	46.9	73.7
		$\alpha=0.5$	3.1	13.4	43.7	68.4
		$\alpha=0.6$	3.4	13.7	40.6	62.1
		$\alpha=0.7$	3.8	14.2	37.7	55.5
		$\alpha=0.8$	4.1	14.9	34.9	49.1
		Benchmark	3.1	13.7	44.4	66.7
<i>(Latin America)</i>	2010	$\gamma=0.9$	4.6	16.6	41.9	61.3
		$\gamma=1.1$	1.9	10.6	46.6	71

Table 7.6
Share of emissions from investments in total group emissions across scenarios, 1990-2019

Region	Year	Scenario	Emissions from investments in group emissions (%)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(Latin America)</i>	2019	$\alpha=0.4$	2.6	13.3	50.2	75.9
		$\alpha=0.5$	2.9	13.5	46.9	71
		$\alpha=0.6$	3.1	13.7	43.7	65.4
		$\alpha=0.7$	3.4	14.2	40.5	58.9
		$\alpha=0.8$	3.8	14.9	37.6	52
		Benchmark	3.1	13.7	43.7	65.3
		$\gamma=0.9$	4.6	16.3	41.2	59.2
		$\gamma=1.1$	1.9	10.7	45.8	70
		$\alpha=0.4$	2.7	13.4	49.4	74.8
		$\alpha=0.5$	2.9	13.5	46	69.6
		$\alpha=0.6$	3.2	13.8	42.8	63.9
		$\alpha=0.7$	3.5	14.2	39.8	57.5
		$\alpha=0.8$	3.8	14.7	37	51.1
		Benchmark	4.4	10.3	34.1	54.5
<i>(M. East & N. Africa)</i>	1990	$\gamma=0.9$	5.9	12.7	32.1	49
		$\gamma=1.1$	3.1	8	35.7	59.3
		$\alpha=0.4$	3.8	9.9	37.4	64.3
		$\alpha=0.5$	4	10.1	35.9	59.7
		$\alpha=0.6$	4.3	10.3	34.3	54.8
		$\alpha=0.7$	4.6	10.6	32.5	49.7
		$\alpha=0.8$	5	11	30.8	44.8
		Benchmark	3.2	11.4	32.6	49.1
		$\gamma=0.9$	4.4	13.5	30.9	43.6
		$\gamma=1.1$	2.2	8.9	34.4	55
		$\alpha=0.4$	2.8	11	35.9	57.5
		$\alpha=0.5$	2.9	11.1	34.4	53.9
		$\alpha=0.6$	3.2	11.4	32.7	49.3
		$\alpha=0.7$	3.4	11.7	31.1	45.5
<i>(M. East & N. Africa)</i>	2000	$\alpha=0.8$	3.7	12.2	29.4	41.2
		Benchmark	3.7	11.9	33.6	52.8
		$\gamma=0.9$	5	14	32	46.6
		$\gamma=1.1$	2.6	9.6	35.2	58
		$\alpha=0.4$	3.2	11.5	36.5	63
		$\alpha=0.5$	3.4	11.7	35.2	57.9
		$\alpha=0.6$	3.7	11.9	33.7	53
		$\alpha=0.7$	4	12.2	32.3	48.4
		$\alpha=0.8$	4.3	12.7	30.7	43.7
		Benchmark	3.9	12.8	36.9	56.6
		$\gamma=0.9$	5.2	15.1	35	50.4
		$\gamma=1.1$	2.7	10.4	38.5	62.4
		$\alpha=0.4$	3.4	12.3	40.2	66.2
		$\alpha=0.5$	3.6	12.5	38.7	61.7

Table 7.6
Share of emissions from investments in total group emissions across scenarios, 1990-2019

Region	Year	Scenario	Emissions from investments in group emissions (%)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
North America	1990	$\alpha=0.6$	3.8	12.8	37	56.8
		$\alpha=0.7$	4.1	13.2	35.3	52
		$\alpha=0.8$	4.4	13.7	33.5	47
		Benchmark	2.9	17.5	46.8	67.9
		$\gamma=0.9$	4	19.3	44.2	62.5
		$\gamma=1.1$	2	15.4	49.3	72.5
		$\alpha=0.4$	2.7	17.7	49.5	72.8
		$\alpha=0.5$	2.9	17.6	46.9	68.3
		$\alpha=0.6$	3.1	17.6	44.3	63.2
		$\alpha=0.7$	3.3	17.6	41.6	57.5
(North America)	2000	$\alpha=0.8$	3.5	17.8	39	51.5
		Benchmark	2.3	17.9	51	71.7
		$\gamma=0.9$	3.3	20.5	48.3	66.1
		$\gamma=1.1$	1.5	15.2	53.5	76.7
		$\alpha=0.4$	2.1	18.1	54.1	76.6
		$\alpha=0.5$	2.3	18	51.1	72
		$\alpha=0.6$	2.4	18	48.2	66.7
		$\alpha=0.7$	2.6	18.2	45.2	60.7
		$\alpha=0.8$	2.9	18.6	42.4	54.4
		Benchmark	1.4	17.3	52.8	73.5
(North America)	2010	$\gamma=0.9$	2.1	20.1	50.2	68.7
		$\gamma=1.1$	.9	14.1	55.4	77.2
		$\alpha=0.4$	1.3	17.4	56	78.3
		$\alpha=0.5$	1.4	17.3	53	73.8
		$\alpha=0.6$	1.5	17.4	50	68.7
		$\alpha=0.7$	1.7	17.6	46.9	62.8
		$\alpha=0.8$	1.8	17.9	44	56.5
		Benchmark	2.2	18.6	54.1	74
		$\gamma=0.9$	3.2	21.6	51.1	69.5
		$\gamma=1.1$	1.4	15.3	56.6	77.9
(North America)	2019	$\alpha=0.4$	2	18.7	57.3	78.9
		$\alpha=0.5$	2.1	18.7	54.1	74.2
		$\alpha=0.6$	2.3	18.8	51	68.8
		$\alpha=0.7$	2.5	19	47.9	63
		$\alpha=0.8$	2.7	19.4	44.9	56.8
		Benchmark	11.2	23.9	43.4	65.3
		$\gamma=0.9$	13.2	25.5	39.7	57.4
		$\gamma=1.1$	9.1	21.4	47.5	72.4
		$\alpha=0.4$	10.3	23.9	47.7	74.3
		$\alpha=0.5$	10.7	23.9	45.9	70.6
Russia & Cent. Asia	1990	$\alpha=0.6$	11.1	23.9	44.1	66.8
		$\alpha=0.7$	11.5	23.9	42.2	62.5
		Benchmark	11.2	23.9	43.4	65.3
		$\gamma=0.9$	13.2	25.5	39.7	57.4
		$\gamma=1.1$	9.1	21.4	47.5	72.4

Table 7.6
Share of emissions from investments in total group emissions across scenarios, 1990-2019

Region	Year	Scenario	Emissions from investments in group emissions (%)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(Russia & Cent. Asia)</i>	2000	$\alpha=0.8$	12	24.1	40.3	57.6
		Benchmark	5.3	16.5	41.7	62.1
		$\gamma=0.9$	7.1	19	38.6	55.5
		$\gamma=1.1$	3.7	13.5	44.5	68.4
		$\alpha=0.4$	4.6	15.9	48.6	74.6
		$\alpha=0.5$	4.9	16.1	45.7	70
		$\alpha=0.6$	5.2	16.3	42.8	64.7
		$\alpha=0.7$	5.5	16.7	40	58.5
		$\alpha=0.8$	5.9	17.2	37.2	51.7
		Benchmark	3.8	15.3	43.8	63.9
<i>(Russia & Cent. Asia)</i>	2010	$\gamma=0.9$	5.2	17.8	41.4	56.7
		$\gamma=1.1$	2.6	12	46.8	70.9
		$\alpha=0.4$	3.4	14.7	50.1	75.5
		$\alpha=0.5$	3.6	14.9	47.5	71.1
		$\alpha=0.6$	3.7	15.1	44.9	66.2
		$\alpha=0.7$	3.9	15.4	42.4	61.5
		$\alpha=0.8$	4.2	15.8	39.8	55.5
		Benchmark	3.6	13.9	45.4	67.1
		$\gamma=0.9$	5.2	16.8	42.8	60.6
		$\gamma=1.1$	2.3	10.2	47.8	71
<i>(Russia & Cent. Asia)</i>	2019	$\alpha=0.4$	3.3	13.3	51.7	77.5
		$\alpha=0.5$	3.4	13.5	49.2	73.7
		$\alpha=0.6$	3.6	13.7	46.5	69.2
		$\alpha=0.7$	3.8	14	44	64.3
		$\alpha=0.8$	4	14.4	41.4	58.6
		Benchmark	9.1	20.3	42.5	56.6
		$\gamma=0.9$	11.3	22.4	39.9	51.3
		$\gamma=1.1$	7	17.7	44.8	60.9
		$\alpha=0.4$	7.6	19.9	48.4	64.8
		$\alpha=0.5$	8.1	20	46.4	62.2
<i>(South & S.-E. Asia)</i>	1990	$\alpha=0.6$	8.6	20.2	44.1	58.8
		$\alpha=0.7$	9.2	20.4	42.1	55.6
		$\alpha=0.8$	9.8	20.8	39.9	51.8
		Benchmark	6	18	40.3	52.8
		$\gamma=0.9$	7.8	20.4	37.6	48.6
		$\gamma=1.1$	4.4	15.3	42.5	58.1
		$\alpha=0.4$	5	17.6	46.5	60.6
		$\alpha=0.5$	5.3	17.7	44.3	58.1
		$\alpha=0.6$	5.7	17.9	42	55.3
		$\alpha=0.7$	6	18.1	40	51.9
<i>(South & S.-E. Asia)</i>	2000	$\alpha=0.8$	6.5	18.6	37.7	47.8
		Benchmark	7.6	22	46.2	60.1
<i>(South & S.-E. Asia)</i>	2010	$\gamma=0.9$	7.8	20.4	37.6	48.6
		$\gamma=1.1$	4.4	15.3	42.5	58.1
		$\alpha=0.4$	5	17.6	46.5	60.6
		$\alpha=0.5$	5.3	17.7	44.3	58.1
		$\alpha=0.6$	5.7	17.9	42	55.3
		$\alpha=0.7$	6	18.1	40	51.9
		$\alpha=0.8$	6.5	18.6	37.7	47.8
		Benchmark	7.6	22	46.2	60.1
		$\gamma=0.9$	7.8	20.4	37.6	48.6
		$\gamma=1.1$	4.4	15.3	42.5	58.1

Table 7.6
Share of emissions from investments in total group emissions across scenarios, 1990-2019

Region	Year	Scenario	Emissions from investments in group emissions (%)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
<i>(South & S.-E. Asia)</i>	2019	$\gamma=0.9$	10.1	25.2	43.6	54.5
		$\gamma=1.1$	5.4	18.1	48.6	65.7
		$\alpha=0.4$	6.1	21	53.8	69.8
		$\alpha=0.5$	6.6	21.2	51.2	67
		$\alpha=0.6$	7.1	21.6	48.4	63.1
		$\alpha=0.7$	7.6	22.1	45.9	58.9
		$\alpha=0.8$	8.3	22.9	43.3	54.4
		Benchmark	7.4	21.4	45.6	63.5
	1990	$\gamma=0.9$	9.7	24.2	43.4	55.7
		$\gamma=1.1$	5.2	17.6	48.1	69.5
		$\alpha=0.4$	5.9	20.4	53.9	75
		$\alpha=0.5$	6.3	20.6	51.2	71.6
		$\alpha=0.6$	6.8	21	48.3	67.1
		$\alpha=0.7$	7.4	21.6	45.4	62.2
		$\alpha=0.8$	8.1	22.4	42.5	56.9
		Benchmark	1.9	6.1	24.9	43.8
<i>(Sub-Saharan Africa)</i>	2000	$\gamma=0.9$	2.6	7.3	23.7	40.2
		$\gamma=1.1$	1.2	5	25.9	47.4
		$\alpha=0.4$	1.5	6	27.6	50.6
		$\alpha=0.5$	1.6	6.1	26.4	46.7
		$\alpha=0.6$	1.8	6.2	25.1	43.1
		$\alpha=0.7$	1.9	6.3	23.8	39.4
		$\alpha=0.8$	2.1	6.6	22.3	35.5
		Benchmark	1.7	5.2	22.5	42.6
	2010	$\gamma=0.9$	2.4	6.4	21.6	39
		$\gamma=1.1$	1.2	4.2	23.1	45.2
		$\alpha=0.4$	1.4	5.1	24.5	50.4
		$\alpha=0.5$	1.5	5.1	23.7	46.1
		$\alpha=0.6$	1.6	5.2	22.9	42
		$\alpha=0.7$	1.8	5.3	21.9	38.3
		$\alpha=0.8$	2	5.6	20.8	34.5
		Benchmark	2.1	6.4	24.7	44.8
<i>(Sub-Saharan Africa)</i>	2019	$\gamma=0.9$	2.8	7.6	23.7	41
		$\gamma=1.1$	1.4	5.2	25.7	48.8
		$\alpha=0.4$	1.7	6.2	27.4	52.1
		$\alpha=0.5$	1.8	6.2	26.3	47.7
		$\alpha=0.6$	2	6.3	25.2	43.6
		$\alpha=0.7$	2.1	6.5	23.9	39.9
		$\alpha=0.8$	2.4	6.8	22.6	36.1
		Benchmark	2.5	7	25.9	45.2
	2010	$\gamma=0.9$	3.4	8.2	24.7	41.1
		$\gamma=1.1$	1.8	5.7	27	49.3

Table 7.6
Share of emissions from investments in total group emissions across scenarios, 1990-2019

Region	Year	Scenario	Emissions from investments in group emissions (%)			
			<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
		$\alpha=0.4$	2	6.8	28.8	52.7
		$\alpha=0.5$	2.2	6.9	27.7	48.4
		$\alpha=0.6$	2.4	7	26.4	44.3
		$\alpha=0.7$	2.6	7.2	25	40.4
		$\alpha=0.8$	2.8	7.5	23.6	36.5

Notes: The table presents results on different emitter groups' shares of emissions from investments, across different scenarios. The benchmark scenario corresponds to country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. Other scenarios presented are variants, with different α or γ parameters. Emissions include net imports of carbon embedded in international trade. Emissions are split equally within households (See Methods). **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

Table 7.7
Emissions from investments in total group emissions across scenarios, World, 1990-2019

Year	Scenario	Emissions from investments in group emissions (%)			
		<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
1990	Benchmark	9.5	18.3	34.9	57.5
	$\alpha=0.4$	8.5	17.9	36.4	62.8
	$\alpha=0.5$	8.8	18.2	35.7	59.5
	$\alpha=0.6$	9.2	18.5	34.8	55.6
	$\alpha=0.7$	9.7	18.9	33.9	52.2
	$\alpha=0.8$	10.2	19.3	33.1	48.5
	p51n	4.6	7.9	15	31.1
	$\gamma=0.9$	11.8	20.1	33.2	51.5
	$\gamma=1.1$	7.4	16.2	36.5	61.9
1995	Benchmark	7.6	18.6	37.3	59.7
	$\alpha=0.4$	6.7	18.1	39.2	65.2
	$\alpha=0.5$	6.9	18.4	38.3	62.1
	$\alpha=0.6$	7.3	18.7	37.3	58.5
	$\alpha=0.7$	7.7	19.1	36.4	55.1
	$\alpha=0.8$	8.1	19.6	35.4	51.2
	p51n	2.7	7.7	15.5	30.4
	$\gamma=0.9$	9.6	20.6	35.6	53.9
	$\gamma=1.1$	5.7	16.5	38.7	62.6
2000	Benchmark	7.1	16.8	36.4	58.4
	$\alpha=0.4$	6.2	16.5	38.1	63.9
	$\alpha=0.5$	6.5	16.7	37.3	60
	$\alpha=0.6$	6.8	17	36.4	56.7
	$\alpha=0.7$	7.1	17.4	35.5	53.3
	$\alpha=0.8$	7.5	17.8	34.6	49.5
	p51n	2.9	7.1	15.4	30.7
	$\gamma=0.9$	9	19	34.8	53.1
	$\gamma=1.1$	5.3	14.4	38	63.4
2005	Benchmark	7	17.6	38.2	60.6
	$\alpha=0.4$	6.1	17.1	40.4	66.8
	$\alpha=0.5$	6.4	17.4	39.4	63.5
	$\alpha=0.6$	6.7	17.7	38.4	59.9
	$\alpha=0.7$	7.1	18.1	37.4	56.1
	$\alpha=0.8$	7.5	18.6	36.2	52.1
	p51n	3.4	8.4	17.7	33.9
	$\gamma=0.9$	8.9	20	36.4	54.8
	$\gamma=1.1$	5.2	15.1	39.8	64.5
2010	Benchmark	6.4	18	44.6	67
	$\alpha=0.4$	5.6	17.5	47.5	73.9
	$\alpha=0.5$	5.8	17.7	46.2	70
	$\alpha=0.6$	6.2	18.1	44.9	66.3
	$\alpha=0.7$	6.5	18.6	43.4	62

Table 7.7
Emissions from investments in total group emissions across scenarios, World, 1990-2019

Year	Scenario	Emissions from investments in group emissions (%)			
		<i>Bot. 50%</i>	<i>Mid. 40%</i>	<i>Top 10%</i>	<i>Top 1%</i>
2015	$\alpha=0.8$	6.9	19.1	42	57.6
	p51n	3	7.9	23	45
	$\gamma=0.9$	8.4	21	42.5	61.1
	$\gamma=1.1$	4.6	15	46.3	71.5
	Benchmark	6.5	18.6	48.1	70.7
	$\alpha=0.4$	5.6	17.9	51.4	78.1
	$\alpha=0.5$	5.9	18.2	50	74.5
	$\alpha=0.6$	6.2	18.6	48.6	70.7
	$\alpha=0.7$	6.6	19	47	66.5
	$\alpha=0.8$	7	19.5	45.5	62.2
	p51n	3	8	26.1	50.5
	$\gamma=0.9$	8.4	21.7	46.2	65.2
	$\gamma=1.1$	4.6	15	50	75.4
	Benchmark	6.2	18.7	49.2	71.9
2019	$\alpha=0.4$	5.3	18.1	52.7	79.6
	$\alpha=0.5$	5.6	18.4	51.2	76.2
	$\alpha=0.6$	5.9	18.7	49.7	72.4
	$\alpha=0.7$	6.3	19.1	48	68
	$\alpha=0.8$	6.8	19.7	46.3	63.1
	p51n	2.9	8.2	26.7	50.2
	$\gamma=0.9$	8.2	22	47.1	66.5
	$\gamma=1.1$	4.5	15.2	50.8	76.2

Notes: The table presents results on global emitter groups' shares of emissions stemming from their investments, across different scenarios. The benchmark scenario corresponds to country-level elasticity values from SI Table 5, $\gamma=1$ and $\delta=0$. Other scenarios presented are variants, with different α or γ parameters. The "P51n" scenario presents values obtained when taking into account emissions associated to net capital stock formation only, not those associated with the replacement of the old capital stock. The scenario is not taken into account when computing interval bounds in the main paper, see also note on SI page 4. Emissions include net imports of carbon embedded in international trade. Emissions are split equally within households (See Methods). **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

8 Discussion

8.1 2030 per capita emissions targets

Per capita national targets are based on their Nationally Determined Commitments as of July 2021. Values are obtained from [55]. Rich countries typically express their targets in terms of percentage reduction by a certain date, as compared to a benchmark date. For instance, the US objective is to cut its total emissions by 50-52% as compared to 2005 level. In order to obtain per capita targets in 2030, I divide the implied 2030 total by the US population in 2030 using UN Population Prospects[56]. In emerging countries, targets are typically expressed as changes in the carbon intensity of GDP. In that case, I use GDP forecasts by the OECD [57] and calculate implied per capita, based on carbon intensity targets announced by the country.

Figures 8.1 and 8.2 present GHG emission levels of different income groups in France and India, and their required emissions reduction in order to reach the national emissions target for 2030, once this target is expressed in per capita terms.

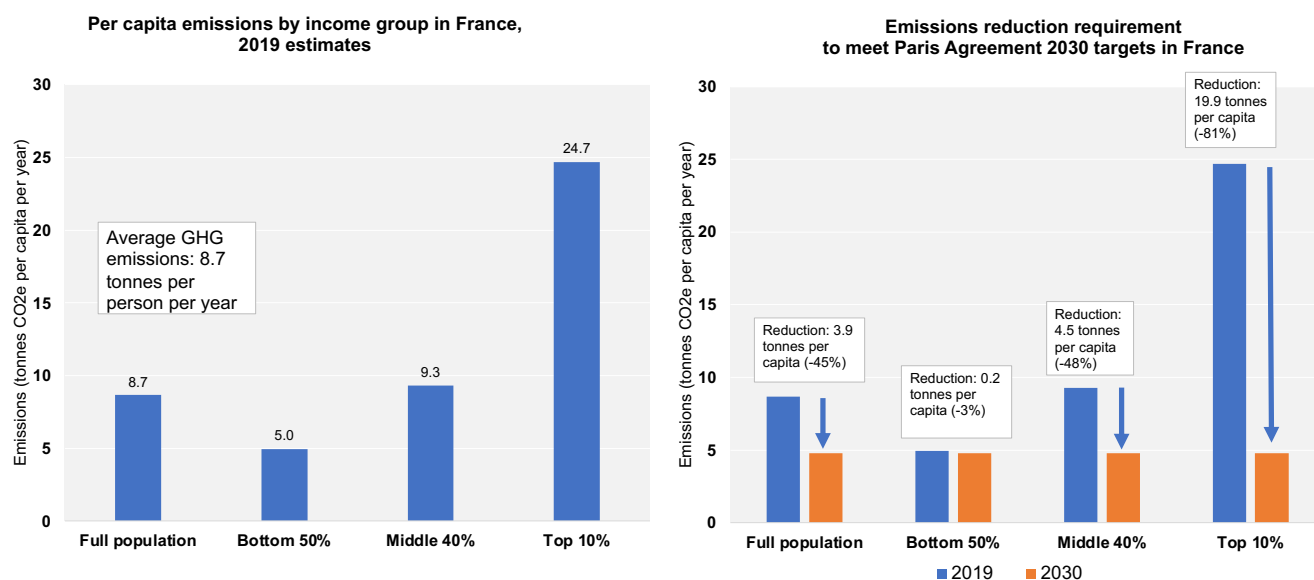


Figure 8.1
Emissions inequality and per capita mitigation targets in France

Notes: Results show emission levels of different income groups in France and their required emissions reduction in order to reach the national emissions target for 2030, once this target is expressed in per capita terms. **Sources and series:** Author.

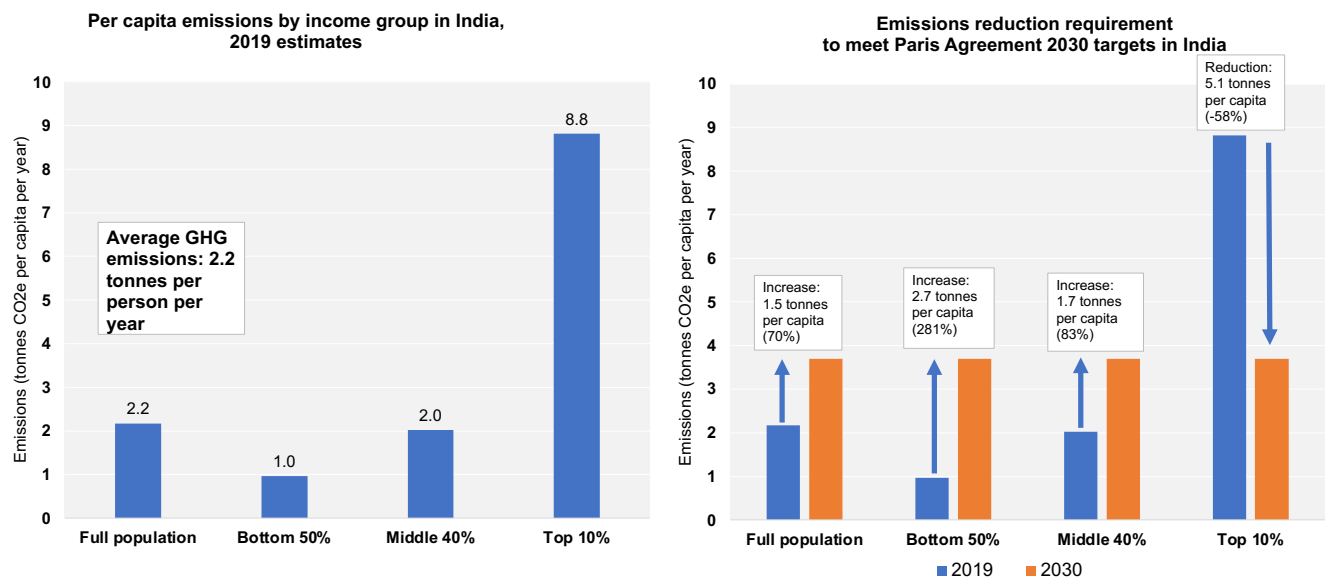


Figure 8.2

Emissions inequality and per capita mitigation targets in India

Notes: Results show emission levels of different income groups in India and their required emissions reduction in order to reach the national emissions target for 2030, once this target is expressed in per capita terms. **Sources and series:** Author.

8.2 Carbon inequality policy matrix

Extended Data Figure 2 available in the online version of the Main manuscript presents a non-exhaustive list of climate policies and their impacts on different groups of the population. The table is adapted from earlier work by Chancel and Voituriez [58] and [59].

8.3 Carbon tax on investments

Table 8.1
Share of the population emitting
>5tCO₂e from investments

Region	Pop. share (%)
East Asia	14%
Europe	10%
Latin America	3.5%
M. East & N. Africa	6%
North America	23%
Russia & Cent. Asia	7%
Sub-Saharan Africa	.5%
South & S.-E. Asia	2.5%

Notes: The table presents the share of the population emitting more than 5tCO₂e from their investments. Benchmark scenario. **Sources and series:** Author's modeled estimates, based on the systematic combination of tax data, household surveys, national accounts and Input-Output Tables.

9 Additional tables

SI Table 9 presents average income, population and income inequality summary statistics for the 174 countries included in the analysis. The countries represent over 97% of the world population and income over the period considered.

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Afghanistan (<i>Other Asia</i>)	1990	12.4	4033	17.2	40.2	42.6	14.1	
	1995	18.1	2109	17.4	40.7	41.9	13.4	
	2000	20.8	1515	17.8	40.3	41.9	13.9	
	2005	25.7	2028	17.8	39.3	42.9	15.4	
	2010	29.2	3074	18.6	39.4	42	14.8	
	2015	34.4	3088	19	39.6	41.4	14.4	
Albania (<i>Europe</i>)	2019	38	2902	18.7	39.3	42.1	14.8	
	1990	3.3	5524	21.2	48.5	30.2	7.1	
	1995	3.1	5363	21.2	48.5	30.2	7.1	
	2000	3.1	6527	20.1	48.7	31.2	7.3	
	2005	3.1	8262	20.5	48.1	31.5	7.7	
	2010	2.9	10014	21	47.9	31.1	7.6	
Algeria (<i>MENA</i>)	2015	2.9	10577	19.4	46.8	33.8	8.8	
	2019	2.9	11716	19.3	46.7	34	9	
	1990	25.8	16504	15	36.9	48.1	17	
	1995	28.8	14144	16.6	41.2	42.2	11.7	
	2000	31	14150	17.9	41.5	40.6	11.1	
	2005	33.1	15168	19.2	41.7	39.1	10.4	
Angola (<i>SubSaharan Africa</i>)	2010	36	15731	20.4	42	37.6	9.8	
	2015	39.7	15633	20.7	42	37.3	9.7	
	2019	43.1	14961	20.7	42	37.3	9.7	
	1990	11.8	7970	13.8	38.4	47.8	15.1	
	1995	13.9	5514	13.8	38.4	47.8	15.1	
	2000	16.4	5936	9.5	32.7	57.8	21.9	
	2005	19.4	7909	11.7	36.1	52.2	17.7	
	2010	23.4	9817	12.3	37	50.6	17.3	
	2015	27.9	10833	10.6	34.4	55.1	22.6	
	2019	31.8	8704	9.5	32.8	57.7	25.8	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Argentina (<i>Latin America</i>)	1990	32.6	10889	10.9	40.7	48.4	17	
	1995	34.8	13520	10.9	40.7	48.4	17	
	2000	36.9	14058	10.9	40.7	48.4	17	
	2005	38.9	15509	14	40.9	45.2	15.8	
	2010	40.9	18686	14.4	40.8	44.8	15	
	2015	43.1	20369	15.8	41.4	42.8	16.9	
	2019	44.8	17994	17.6	41.8	40.6	15.9	
Armenia (<i>Central Asia</i>)	1990	3.5	4228	26.5	47.8	25.7	5.9	
	1995	3.2	2477	22.9	46.8	30.3	8.3	
	2000	3.1	3212	21.9	46.3	31.8	9.2	
	2005	3	5746	20.2	45.8	34.1	10.6	
	2010	2.9	6976	20.2	45.9	33.9	10.1	
	2015	2.9	8148	20.1	45.6	34.3	10.9	
	2019	3	9436	20.2	45.3	34.5	11.5	
Australia (<i>Other Rich</i>)	1990	17.1	27926	21.4	52.8	25.7	7.2	
	1995	18	28928	20.6	52.2	27.2	8.1	
	2000	19	33882	19.6	50.7	29.7	10.2	
	2005	20.2	36736	19.6	50.3	30.1	10.9	
	2010	22	37813	20	49.7	30.3	11.1	
	2015	23.8	37670	18.8	49.4	31.8	11.4	
	2019	25.1	39072	18.8	48.6	32.5	12.4	
Austria (<i>Europe</i>)	1990	7.7	30789	22.9	44.2	32.9	10.9	
	1995	8	32892	22.4	44.8	32.7	10.8	
	2000	8.1	36998	23.4	42.7	33.9	11.5	
	2005	8.3	39234	23	42.3	34.7	11	
	2010	8.4	40553	23	43.1	33.9	11.1	
	2015	8.7	39700	23.6	43.8	32.6	9.9	
	2019	9	42114	24.5	43.6	32	9.2	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Azerbaijan (<i>Central Asia</i>)	1990	7.2	10586	26.5	47.8	25.7	5.9	
	1995	7.8	4193	22.9	46.8	30.3	8.3	
	2000	8.1	5169	21.9	46.3	31.8	9.2	
	2005	8.5	8163	20.2	45.8	34.1	10.6	
	2010	9	17346	20.2	45.9	33.9	10.1	
	2015	9.6	17675	20.1	45.6	34.3	10.9	
	2019	10	15838	20.2	45.3	34.5	11.5	
Bahamas (<i>Latin America</i>)	1990	.3	40067	10.2	37.2	52.5	21.6	
	1995	.3	35597	10.2	37.2	52.5	21.6	
	2000	.3	39620	10.2	37.2	52.5	21.6	
	2005	.3	37492	10.7	37.3	52	21.4	
	2010	.4	32579	11.2	37.4	51.3	20.7	
	2015	.4	29478	12.1	37.9	50	21	
	2019	.4	27827	12.7	38.8	48.5	20.2	
Bahrain (<i>MENA</i>)	1990	.5	44639	15.3	31.4	53.3	18.9	
	1995	.6	50237	15.3	31.4	53.3	18.9	
	2000	.7	52386	15.5	32.2	52.3	18.5	
	2005	.9	48621	15.7	32.8	51.5	18.1	
	2010	1.2	38246	15.6	32.9	51.5	17.6	
	2015	1.4	43544	15.4	32.7	51.9	18	
	2019	1.6	39909	15.4	32.7	51.9	18	
Bangladesh (<i>Other Asia</i>)	1990	103.2	2205	21.7	40.9	37.4	12	
	1995	115.2	2385	18.9	37.3	43.8	16.1	
	2000	127.7	2560	18.6	38	43.3	15.6	
	2005	139	2854	18.4	37.5	44.1	15.8	
	2010	147.6	3397	19.8	38.3	41.9	15.2	
	2015	156.3	4150	19.7	38.6	41.7	15.7	
	2019	163	5142	19.7	38.6	41.7	15.8	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Belarus (<i>Central Asia</i>)	1990	10.2	8259	26.5	47.8	25.7	5.9	
	1995	10.1	5254	22.9	46.8	30.3	8.3	
	2000	9.9	7068	21.9	46.3	31.8	9.2	
	2005	9.6	9860	20.2	45.8	34.1	10.6	
	2010	9.4	13290	20.2	45.9	33.9	10.1	
	2015	9.4	13462	20.1	45.6	34.3	10.9	
	2019	9.5	14351	20.2	45.3	34.5	11.5	
Belgium (<i>Europe</i>)	1990	10	29981	20.8	46.1	33.1	8.5	
	1995	10.2	32088	21	46.5	32.5	8.1	
	2000	10.3	36319	20.6	46.9	32.5	8.2	
	2005	10.5	37779	20.9	47.2	31.8	8.5	
	2010	10.9	38239	21	47.4	31.6	7.9	
	2015	11.3	39406	21.4	47.3	31.3	8.2	
	2019	11.5	40261	21.5	46.8	31.7	8.5	
Belize (<i>Latin America</i>)	1990	.2	7357	10.2	37.2	52.5	21.6	
	1995	.2	8795	10.2	37.2	52.5	21.6	
	2000	.2	9066	10.2	37.2	52.5	21.6	
	2005	.3	9229	10.7	37.3	52	21.4	
	2010	.3	8461	11.2	37.4	51.3	20.7	
	2015	.4	8772	12.1	37.9	50	21	
	2019	.4	7689	12.7	38.8	48.5	20.2	
Benin (<i>SubSaharan Africa</i>)	1990	5	2482	15	36.8	48.2	16.1	
	1995	5.9	2594	15	36.8	48.2	16.1	
	2000	6.9	2840	15	36.8	48.2	16.1	
	2005	8	2920	14.5	36.6	49	15.9	
	2010	9.2	3013	13.1	35.9	50.9	15.3	
	2015	10.6	3229	11.5	33.8	54.7	17.5	
	2019	11.8	3565	11.5	33.8	54.7	17.5	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
<i>(Region)</i>	1990	.5	4127	14.4	37.2	48.3	17.2	
Bhutan	1995	.5	4499	14.4	37.2	48.3	17.2	
<i>(Other Asia)</i>	2000	.6	5059	14.5	37.2	48.4	17.3	
	2005	.6	6180	15.7	38.4	45.8	15.7	
	2010	.7	8183	16.3	37.9	45.7	16.6	
	2015	.7	9046	16.7	40.1	43.2	14.8	
	2019	.8	9902	16.9	41.1	42	13.8	
Bolivia	1990	6.9	5370	10.2	37.2	52.5	21.6	
<i>(Latin America)</i>	1995	7.6	5951	10.2	37.2	52.5	21.6	
	2000	8.4	6248	10.2	37.2	52.5	21.6	
	2005	9.2	6388	10.7	37.3	52	21.4	
	2010	10	6988	11.2	37.4	51.3	20.7	
	2015	10.9	8178	12.1	37.9	50	21	
	2019	11.5	8723	12.7	38.8	48.5	20.2	
Bosnia and Herzegovina	1990	4.5	1652	25.3	49.2	25.4	5.4	
<i>(Europe)</i>	1995	3.8	1969	23.5	48.7	27.8	6.6	
	2000	3.8	7483	21.7	48.4	29.9	7.7	
	2005	3.8	8811	20	47.4	32.6	7.9	
	2010	3.7	9606	20	47.3	32.7	8.5	
	2015	3.4	10889	20.6	47.3	32.1	8.4	
	2019	3.3	12299	20.6	47.2	32.2	8.6	
Botswana	1990	1.3	13797	7.3	26.9	65.8	30.6	
<i>(SubSaharan Africa)</i>	1995	1.5	13991	6.3	24.6	69.1	34.1	
	2000	1.6	14737	5.5	25.2	69.3	29.6	
	2005	1.8	13685	5.7	25.9	68.4	28.4	
	2010	2	14741	6.8	27.4	65.7	28.2	
	2015	2.1	17567	8.7	32.4	58.9	22.6	
	2019	2.3	17739	8.7	32.4	58.9	22.6	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Brazil (Latin America)	1990	149	13195	11.2	34.2	54.5	24.5	
	1995	162	13812	11.2	34.2	54.5	24.5	
	2000	174.8	13335	11.2	34.2	54.5	24.5	
	2005	186.1	13549	11	32.9	56.2	27.4	
	2010	195.7	15198	10.7	31.4	57.9	28.5	
	2015	204.5	14921	11.3	32.9	55.8	24.3	
	2019	211	13998	9.9	31.1	59.1	30.6	
Brunei Darussalam (Other Asia)	1990	.3	104437	15.9	39.7	44.4	18.5	
	1995	.3	104077	15.9	39.7	44.4	18.5	
	2000	.3	93847	15.9	39.7	44.4	18.5	
	2005	.4	91504	15.5	39.7	44.8	17.1	
	2010	.4	85295	16.2	40.6	43.2	17.2	
	2015	.4	82129	19	41.6	39.4	14.6	
	2019	.4	74122	19	41.6	39.4	14.6	
Bulgaria (Europe)	1990	8.8	8783	29.1	46.8	24.1	5.1	
	1995	8.4	8773	19.4	42.2	38.4	12.8	
	2000	8	8331	22.4	45.9	31.7	9.2	
	2005	7.7	11240	19.5	44.6	35.9	11.7	
	2010	7.4	12979	20.5	45.2	34.3	11.3	
	2015	7.2	14227	19	43.2	37.9	13.4	
	2019	7	17648	17.6	39.7	42.7	18.3	
Burkina Faso (SubSaharan Africa)	1990	8.8	1517	11	31.7	57.4	21.1	
	1995	10.1	1611	10.8	30.7	58.4	22.4	
	2000	11.6	1962	11.4	31.4	57.3	22.6	
	2005	13.4	2244	13.3	36.3	50.4	16.8	
	2010	15.6	2479	14.8	36.4	48.8	16.4	
	2015	18.1	2647	16.5	37.1	46.5	14.3	
	2019	20.3	3107	16.5	37.1	46.5	14.3	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Burundi (SubSaharan Africa)	1990	5.4	1583	17.6	40.2	42.2	12.3
	1995	6	1397	15.5	38.4	46.2	14.9
	2000	6.4	1267	14.4	37	48.6	16.2
	2005	7.4	1161	16.8	38.1	45	13.2
	2010	8.7	1174	16.1	37.7	46.3	13.7
	2015	10.2	1114	15.1	37.1	47.8	14.6
	2019	11.5	1002	15.1	37.1	47.8	14.6
Cabo Verde (SubSaharan Africa)	1990	.3	2942	9.2	30.3	60.5	23
	1995	.4	4142	9.2	30.3	60.5	23
	2000	.4	6266	9.2	30.3	60.5	23
	2005	.5	6781	10.6	32.8	56.6	20.5
	2010	.5	7361	12	35.6	52.3	17.2
	2015	.5	6954	13.2	38.2	48.6	13.8
	2019	.5	7825	13.2	38.2	48.6	13.8
Cambodia (Other Asia)	1990	9	2493	17.4	38.1	44.5	15.6
	1995	10.7	1772	17.4	37.4	45.3	16.5
	2000	12.2	2240	17.3	37.6	45	16.2
	2005	13.3	2752	17.4	38.1	44.6	16.1
	2010	14.3	3274	16.8	37	46.2	17.8
	2015	15.5	3918	17.7	38.2	44.1	16.2
	2019	16.5	4698	17.6	38.2	44.2	16.3
Cameroon (SubSaharan Africa)	1990	11.8	5052	12.4	33.8	53.7	18.3
	1995	13.6	4013	12.4	33.8	53.7	18.3
	2000	15.5	4267	13.2	35.1	51.7	18.8
	2005	17.7	4606	13	36.7	50.3	16.6
	2010	20.3	4791	12.2	37.2	50.6	15.6
	2015	23.3	5237	11.3	37	51.7	15.7
	2019	25.9	5400	11.3	37	51.7	15.7

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Canada (North America)	1990	27.7	29335	22.8	44.8	32.4	9.1
	1995	29.3	29829	20.5	44.4	35.1	10.1
	2000	30.7	34851	19.2	42.1	38.7	14.2
	2005	32.2	37082	19.1	41.6	39.3	14.9
	2010	34.1	36313	19.5	41.7	38.8	13.5
	2015	36	37659	19.3	40.8	39.9	15.2
	2019	37.3	39051	18.4	42.3	39.4	14.3
Central African Republic (SubSaharan Africa)	1990	2.8	1590	5.7	29.3	65	28.5
	1995	3.2	1438	7.6	31.6	60.7	24.8
	2000	3.6	1363	10.8	35.5	53.7	18.5
	2005	4	1385	10.8	33.7	55.5	21.2
	2010	4.4	1639	8	27.3	64.6	30.9
	2015	4.5	1212	8	27.3	64.6	30.9
	2019	4.7	1346	8	27.3	64.6	30.9
Chad (SubSaharan Africa)	1990	6	1968	14.3	38.2	47.4	15.3
	1995	7	1913	14.3	38.2	47.4	15.3
	2000	8.4	1851	14.3	38.2	47.4	15.3
	2005	10.1	3835	14	38.4	47.6	14.6
	2010	12	3819	13.1	38.2	48.7	15.4
	2015	14.1	4028	12.9	38.1	48.9	15.6
	2019	15.9	3331	12.9	38.1	48.9	15.6
Chile (Latin America)	1990	13.3	10508	9.7	32.6	57.7	26.7
	1995	14.4	14216	9.7	32.6	57.7	26.7
	2000	15.3	16080	9.7	32.6	57.7	26.7
	2005	16.2	17740	8.7	29.3	62	30.8
	2010	17.1	19632	8.5	29.3	62.3	27.5
	2015	18	22638	9.3	28.2	62.5	30.3
	2019	19	22255	10	29.6	60.4	28.1

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
<i>(Region)</i> China <i>(China)</i>	1990	1143.3	2822	22.6	47	30.4	8.1	
	1995	1211.2	3815	19.3	47.1	33.6	9.3	
	2000	1267.4	4286	18.1	46.4	35.6	10.4	
	2005	1307.6	6256	15	43.1	41.9	14.2	
	2010	1340.9	9089	14.3	43.1	42.6	15.1	
	2015	1374.6	12646	14.8	43.7	41.4	13.9	
	2019	1400.9	15365	14.8	43.7	41.4	13.9	
Colombia <i>(Latin America)</i>	1990	33.1	8780	9.4	37.3	53.3	22.2	
	1995	36.4	9715	9.4	37.3	53.3	22.2	
	2000	39.6	10269	9.4	37.3	53.3	22.2	
	2005	42.6	10393	10.4	37	52.6	22.9	
	2010	45.2	11852	9.9	36.6	53.6	23	
	2015	47.5	13840	11.5	38.7	49.8	21.2	
	2019	50.3	13649	11.8	38.7	49.5	21	
Comoros <i>(SubSaharan Africa)</i>	1990	.4	4387	11.6	38.4	50	16.8	
	1995	.5	3946	11.6	38.4	50	16.8	
	2000	.5	3995	9.7	31	59.2	23.5	
	2005	.6	3791	8.6	26.5	64.9	27.5	
	2010	.7	3742	10.5	32.9	56.6	20	
	2015	.8	3765	12	38.1	49.9	14.1	
	2019	.9	3793	12	38.1	49.9	14.1	
Congo <i>(SubSaharan Africa)</i>	1990	2.4	6558	11.1	34.8	54.1	18.4	
	1995	2.7	4493	11.1	34.8	54.1	18.4	
	2000	3.1	4834	11.1	34.8	54.1	18.4	
	2005	3.6	4932	11.1	34.8	54.1	18.4	
	2010	4.3	6874	10.6	34.1	55.3	20.1	
	2015	4.9	8091	10.5	33.9	55.6	20.4	
	2019	5.4	6867	10.5	33.9	55.6	20.4	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Costa Rica (Latin America)	1990	3.1	11602	10.9	41.7	47.4	16.4	
	1995	3.5	13209	10.9	41.7	47.4	16.4	
	2000	4	13566	10.9	41.7	47.4	16.4	
	2005	4.3	14371	10.9	41.7	47.4	16.4	
	2010	4.6	16112	10.9	41.7	47.4	16.4	
	2015	4.8	17311	10.1	38.4	51.5	18.2	
	2019	5	18124	9.4	38.7	51.9	21.3	
Cote d'Ivoire (SubSaharan Africa)	1990	11.9	4940	14	35.2	50.8	18.7	
	1995	14.2	4704	15.6	37.7	46.8	16.1	
	2000	16.5	4811	13.1	35.7	51.1	19.2	
	2005	18.4	4495	12.4	35.8	51.8	19.7	
	2010	20.5	4511	13.3	37.4	49.3	17.9	
	2015	23.2	5367	13.4	38.3	48.3	17.1	
	2019	25.7	6396	13.4	38.3	48.3	17.1	
Croatia (Europe)	1990	4.8	17036	18.6	50.5	30.9	4.9	
	1995	4.6	12227	18.5	48.7	32.8	6.8	
	2000	4.4	14637	18.1	48.4	33.5	7.7	
	2005	4.4	18259	19	47.2	33.8	9.4	
	2010	4.3	18113	18.6	48.7	32.7	8.5	
	2015	4.2	19093	19.2	48.2	32.7	8.9	
	2019	4.1	21655	19	48.8	32.2	9	
Cuba (Latin America)	1990	10.6	15175	12.7	39.5	47.8	17.5	
	1995	10.9	9051	12.7	39.5	47.8	17.5	
	2000	11.1	10907	12.7	39.5	47.8	17.5	
	2005	11.3	13341	14.1	40.8	45.2	16.1	
	2010	11.2	16461	14.8	41.1	44.1	15.8	
	2015	11.3	18665	16.5	42.6	40.9	14.8	
	2019	11.3	19603	17.2	43.2	39.6	14.3	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Cyprus (<i>Europe</i>)	1990	.6	24109	18.9	44.3	36.8	11.2	
	1995	.7	26053	19.3	44.5	36.1	11.1	
	2000	.7	29299	20.8	46.6	32.7	8.9	
	2005	.7	33768	22.5	47.7	29.8	7.4	
	2010	.8	33344	20.7	46.3	33	8.7	
	2015	.8	28892	17.3	43.9	38.8	12.3	
	2019	.9	32940	20.1	44.9	35	9.8	
	1990	10.4	20675	34.1	46.3	19.7	4.4	
	1995	10.3	18141	29.6	45.3	25.2	7.9	
Czech Republic (<i>Europe</i>)	2000	10.3	18132	29.2	44.5	26.4	8.7	
	2005	10.2	21397	27.9	43.8	28.2	10.4	
	2010	10.5	21974	27.3	44.1	28.6	10.1	
	2015	10.5	24038	26.7	43.6	29.7	10.8	
	2019	10.6	27717	28.1	43.9	28	10	
	1990	34.6	2388	13.4	37.8	48.8	14.3	
	1995	41.6	1384	13.4	37.8	48.8	14.3	
	2000	47.1	1003	13.4	37.8	48.8	14.3	
	2005	54.8	1071	12.2	35.7	52	18.6	
DR Congo (<i>SubSaharan Africa</i>)	2010	64.6	1123	12.9	37	50.1	16.3	
	2015	76.2	1417	13.4	38.2	48.4	14.5	
	2019	86.8	1436	13.4	38.2	48.4	14.5	
	1990	5.1	29866	26.5	46.1	27.4	8.7	
	1995	5.2	33294	26.4	44.9	28.6	10	
	2000	5.3	37863	25.4	44	30.7	11.5	
	2005	5.4	42620	26.1	44	29.9	10.8	
	2010	5.5	42403	24.7	44.4	30.9	11.2	
	2015	5.7	44132	23.2	44.3	32.5	12.5	
Denmark (<i>Europe</i>)	2019	5.7	47461	23.3	45	31.7	11.2	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Djibouti (SubSaharan Africa)	1990	.6	2883	14.4	38.2	47.4	15.2	
	1995	.6	3337	14.4	38.2	47.4	15.2	
	2000	.7	2940	14.4	38.2	47.4	15.2	
	2005	.8	3003	13.8	37.6	48.6	15.8	
	2010	.8	3456	12.8	36.6	50.6	16.7	
	2015	.9	5543	13.3	36.6	50.1	16	
	2019	1	6110	13.8	37.1	49.2	15.7	
	1990	7.1	8341	10.2	37.2	52.5	21.6	
	1995	7.8	9365	10.2	37.2	52.5	21.6	
Dominican Republic (Latin America)	2000	8.5	11365	10.2	37.2	52.5	21.6	
	2005	9.1	11912	10.7	37.3	52	21.4	
	2010	9.7	14456	11.2	37.4	51.3	20.7	
	2015	10.3	16460	12.1	37.9	50	21	
	2019	10.7	19137	12.7	38.8	48.5	20.2	
	1990	10.2	9015	12.8	40.8	46.4	16.7	
	1995	11.5	9723	12.8	40.8	46.4	16.7	
	2000	12.7	8809	12.8	40.8	46.4	16.7	
	2005	13.8	10296	13.4	42.8	43.8	15.3	
Ecuador (Latin America)	2010	15	10948	12.4	41.1	46.5	19	
	2015	16.2	12222	15.7	45.6	38.7	12.8	
	2019	17.4	11100	15.6	46.8	37.6	11.6	
	1990	56.1	9035	18.4	32.1	49.5	18.9	
	1995	62.3	9674	18.4	32.1	49.5	18.9	
	2000	68.8	11258	18.6	32.4	49	18.4	
	2005	75.5	11553	19.4	33.2	47.4	17.5	
	2010	82.8	12981	20.9	34.5	44.6	15.8	
	2015	92.4	13582	19.9	32.7	47.3	18.7	
Egypt (MENA)	2019	100.4	15431	19.9	32.7	47.3	18.7	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
El Salvador (Latin America)	1990	5.3	6980	7.7	38.2	54.1	26	
	1995	5.6	7985	7.7	38.2	54.1	26	
	2000	5.9	7976	7.7	38.2	54.1	26	
	2005	6.1	8005	8.1	41.8	50.1	19.4	
	2010	6.2	8209	9.7	42.9	47.4	18.1	
	2015	6.3	8431	9.2	41.2	49.6	21.9	
	2019	6.5	8635	10.1	43.7	46.2	20.5	
	1990	.4	1541	13	36.8	50.2	15.9	
	1995	.5	2457	13.1	36.9	50	15.7	
Equatorial Guinea (SubSaharan Africa)	2000	.6	14645	12.6	36.3	51.1	16.7	
	2005	.7	41468	12.4	36.1	51.5	17.8	
	2010	.9	40793	12.5	36.8	50.8	16.9	
	2015	1.2	29932	12.3	36.9	50.8	16.9	
	2019	1.4	20315	12.1	36.6	51.3	17.5	
	1990	2.1	3198	13.1	31.1	55.8	27.3	
	1995	2.2	4131	12.3	30	57.7	29.4	
	2000	2.3	4462	19.3	39	41.7	13.6	
	2005	2.8	3604	19.3	38.8	41.9	13.5	
Eritrea (SubSaharan Africa)	2010	3.2	2942	17.8	38.2	44	14.7	
	2015	3.3	3661	16.9	38.2	44.9	13.6	
	2019	3.5	4028	16.9	38.2	44.9	13.6	
	1990	1.6	14278	20.6	48.7	30.7	9.2	
	1995	1.4	10875	14.6	43.4	42	15.3	
	2000	1.4	14197	15.3	43.8	40.9	14	
	2005	1.4	20420	14.9	40.9	44.2	18.7	
	2010	1.3	19084	17.8	46	36.1	11.1	
	2015	1.3	23714	18.4	46.6	35	10.6	
Estonia (Europe)	2019	1.3	28308	20.1	45.1	34.8	13.9	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Ethiopia (SubSaharan Africa)	1990	50.1	1119	14.4	32.8	52.9	24.1	
	1995	57	1155	12.3	30	57.7	29.4	
	2000	66.2	1227	19.3	39	41.7	13.6	
	2005	76.3	1465	19.3	38.8	41.9	13.5	
	2010	87.6	2084	17.8	38.2	44	14.7	
	2015	100.8	2744	16.9	38.2	44.9	13.6	
	2019	112.1	3212	16.9	38.2	44.9	13.6	
	1990	5	25559	27.1	48.4	24.5	4.3	
	1995	5.1	24576	25.7	45.5	28.8	8.5	
Finland (Europe)	2000	5.2	31516	24.6	42.5	32.9	12.4	
	2005	5.3	35556	24.8	44.3	30.9	10.3	
	2010	5.4	36413	22.7	45.5	31.8	9.2	
	2015	5.5	35195	22.9	45	32.1	9.1	
	2019	5.5	37759	23.3	44	32.7	9.9	
	1990	58	30406	23.6	46.5	29.9	8.2	
	1995	59.3	30948	23	47.2	29.8	8.6	
	2000	60.5	35011	22.4	45.8	31.7	10.3	
	2005	62.6	36112	21.8	45.9	32.3	10.5	
France (Europe)	2010	64.3	35772	21.7	46.2	32.1	10.2	
	2015	66	35795	21.8	46.2	31.9	9.8	
	2019	66.7	37249	22	45.9	32.1	10	
	1990	.9	24829	13.4	36.3	50.3	17	
	1995	1.1	25054	13.4	36.3	50.3	17	
	2000	1.2	21667	13.4	36.3	50.3	17	
	2005	1.4	21296	13.4	36.3	50.3	17	
	2010	1.6	18007	14.2	38.6	47.2	14.4	
	2015	1.9	21492	15	40.9	44.1	11.9	
Gabon (SubSaharan Africa)	2019	2.2	20510	15.3	41.8	42.8	10.9	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Gambia (SubSaharan Africa)	1990	1	3759	11.1	33.2	55.8	22.8	
	1995	1.1	3652	10.9	33.7	55.3	20.6	
	2000	1.3	4076	10.9	34.4	54.7	19.2	
	2005	1.5	3885	11.6	34.4	54	20.7	
	2010	1.8	4216	12.7	34.3	53	21.1	
	2015	2.1	3509	16.2	38.6	45.2	13.4	
	2019	2.3	3764	16.2	38.6	45.2	13.4	
	1990	5.4	7728	26.5	47.8	25.7	5.9	
	1995	5	2318	22.9	46.8	30.3	8.3	
Georgia (Central Asia)	2000	4.4	3588	21.9	46.3	31.8	9.2	
	2005	4.2	5191	20.2	45.8	34.1	10.6	
	2010	4.1	6421	20.2	45.9	33.9	10.1	
	2015	4	8251	20.1	45.6	34.3	10.9	
	2019	4	9688	20.2	45.3	34.5	11.5	
	1990	63.2	33512	23.3	45.5	31.2	10.6	
	1995	81.7	30687	24.1	46.5	29.3	8.6	
	2000	82.2	33028	22.2	46	31.8	10.3	
	2005	82.5	34077	20.4	45.2	34.4	11.9	
Germany (Europe)	2010	81.8	35455	19.9	43.7	36.4	12.8	
	2015	82.5	37680	18.6	43.5	37.9	13.2	
	2019	84.2	40110	19.1	43.6	37.3	13	
	1990	14.8	3243	15.5	38.8	45.7	13.5	
	1995	17	3324	14.6	38.1	47.3	14.2	
	2000	19.3	3558	13.9	37.8	48.4	15	
	2005	21.8	3936	13.2	37.4	49.4	15.7	
	2010	24.8	4520	13.3	38.4	48.4	14.7	
	2015	27.8	5470	12.9	38.6	48.4	14.9	
Ghana (SubSaharan Africa)	2019	30.4	6008	12.8	38.6	48.6	15.1	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Greece (<i>Europe</i>)	1990	10.2	23905	18.4	47.4	34.2	10.1	
	1995	10.5	24463	16.5	47.2	36.3	10.6	
	2000	10.9	26677	15.1	45.4	39.5	11.7	
	2005	11	29978	17.3	45.3	37.3	11.2	
	2010	11.1	27261	19.3	46.9	33.8	8.8	
Guatemala (<i>Latin America</i>)	2015	10.9	22045	18.2	45.2	36.6	13.3	
	2019	10.7	23766	19.2	44.7	36.1	12.9	
	1990	9.3	8515	10.2	37.2	52.5	21.6	
	1995	10.4	9406	10.2	37.2	52.5	21.6	
	2000	11.7	9866	10.2	37.2	52.5	21.6	
Guinea (<i>SubSaharan Africa</i>)	2005	13.1	9672	10.7	37.3	52	21.4	
	2010	14.6	9706	11.2	37.4	51.3	20.7	
	2015	16.3	9893	12.1	37.9	50	21	
	2019	17.6	9868	12.7	38.8	48.5	20.2	
	1990	6.4	2210	10.9	41.1	48	14.7	
Guinea-Bissau (<i>SubSaharan Africa</i>)	1995	7.3	2452	11.6	39.1	49.3	16	
	2000	8.2	2671	12.6	36.6	50.8	17.7	
	2005	9.1	2952	14.5	37.7	47.9	15.6	
	2010	10.2	2937	16.3	40	43.7	12.6	
	2015	11.4	3186	17.4	40.5	42.1	12.4	
Guinea-Bissau (<i>SubSaharan Africa</i>)	2019	12.8	3781	17.4	40.5	42.1	12.4	
	1990	1	2717	7.6	32.9	59.4	23.6	
	1995	1.1	2893	13.4	36.3	50.3	18.3	
	2000	1.2	2400	15.6	38.4	46	15.2	
	2005	1.3	2322	14.1	35.8	50.1	15.1	
Guinea-Bissau (<i>SubSaharan Africa</i>)	2010	1.5	2375	10.2	30.1	59.7	17	
	2015	1.7	2459	10.2	30.1	59.7	17	
	2019	1.9	2498	10.2	30.1	59.7	17	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Guyana (Latin America)	1990	.7	3915	10.2	37.2	52.5	21.6	
	1995	.8	4925	10.2	37.2	52.5	21.6	
	2000	.7	5994	10.2	37.2	52.5	21.6	
	2005	.7	6328	10.7	37.3	52	21.4	
	2010	.7	7788	11.2	37.4	51.3	20.7	
	2015	.8	9041	12.1	37.9	50	21	
	2019	.8	9313	12.7	38.8	48.5	20.2	
	1990	7	3594	10.2	37.2	52.5	21.6	
	1995	7.7	2907	10.2	37.2	52.5	21.6	
Haiti (Latin America)	2000	8.5	2927	10.2	37.2	52.5	21.6	
	2005	9.2	2493	10.7	37.3	52	21.4	
	2010	9.9	2379	11.2	37.4	51.3	20.7	
	2015	10.7	2474	12.1	37.9	50	21	
	2019	11.3	2373	12.7	38.8	48.5	20.2	
	1990	5	5295	10.2	37.2	52.5	21.6	
	1995	5.7	5366	10.2	37.2	52.5	21.6	
	2000	6.6	5388	10.2	37.2	52.5	21.6	
	2005	7.5	5519	10.7	37.3	52	21.4	
Honduras (Latin America)	2010	8.3	5509	11.2	37.4	51.3	20.7	
	2015	9.1	5536	12.1	37.9	50	21	
	2019	9.7	5545	12.7	38.8	48.5	20.2	
	1990	10.4	15395	34.1	44.3	21.6	5.1	
	1995	10.3	11981	30.2	44.5	25.3	7.1	
	2000	10.2	13380	27.9	43.6	28.5	9.1	
	2005	10.1	17129	25.3	41.7	33	11.7	
	2010	10	15755	23.1	43.2	33.7	11.4	
	2015	9.9	18297	22.8	44.1	33.1	11.8	
Hungary (Europe)	2019	9.8	21853	22.3	43.3	34.3	12.4	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
<i>(Region)</i>	1990	.3	30483	23.8	46.6	29.7	7.8	
Iceland	1995	.3	30620	24	46.1	29.9	7.8	
<i>(Europe)</i>	2000	.3	37439	23.7	46.1	30.2	8.5	
	2005	.3	42598	23.5	45.9	30.7	10	
	2010	.3	32847	26.3	47.5	26.2	5.4	
	2015	.3	45130	25.9	45.4	28.7	8	
	2019	.3	50716	26.2	45.4	28.4	8.1	
India	1990	873.3	2306	22.3	44.2	33.5	10.5	
<i>(India)</i>	1995	963.9	2557	20.9	40.8	38.3	13	
	2000	1056.6	3129	20.5	39.6	39.9	15.1	
	2005	1147.6	3631	18.3	36.2	45.5	19.3	
	2010	1234.3	4711	15.9	31.8	52.2	21.2	
	2015	1310.2	5959	14.6	29.2	56.1	21.4	
	2019	1366.4	7074	14.6	29.2	56.1	21.4	
Indonesia	1990	182.2	3241	19.9	41.3	38.8	10.3	
<i>(Other Asia)</i>	1995	197.8	4347	13.8	42.5	43.7	12	
	2000	211.5	4934	21.6	40.5	37.9	10.4	
	2005	226.3	5766	17.8	39.3	42.9	12.4	
	2010	241.8	8819	17.9	40.6	41.5	11.2	
	2015	258.4	10186	18.5	40.8	40.7	11	
	2019	270.6	11611	17.6	41.7	40.7	10.7	
Iran	1990	56.4	16364	15.4	34.9	49.7	17.1	
<i>(Other Asia)</i>	1995	61.4	16738	15.4	34.9	49.7	17.1	
	2000	65.6	16402	15.4	34.8	49.8	17.2	
	2005	69.8	17689	15.3	34.7	49.9	17.4	
	2010	73.8	18569	15.3	34.6	50	17.6	
	2015	78.5	15589	17.7	34.9	47.4	15.5	
	2019	82.9	15205	17.7	34.9	47.3	15.4	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Iraq (MENA)	1990	17.4	20158	15.6	31.5	52.9	22.7	
	1995	20.1	10658	15.6	31.5	52.9	22.8	
	2000	23.5	19236	15.6	31.5	52.9	22.7	
	2005	26.9	14045	15.6	31.5	52.9	22.7	
	2010	29.7	19958	15.7	31.5	52.9	22.6	
	2015	35.6	21647	15.7	31.5	52.8	22.6	
	2019	39.3	21714	15.7	31.5	52.9	22.7	
	1990	3.5	24279	24.7	46.3	29	8.1	
Ireland (Europe)	1995	3.6	27132	22.8	45.9	31.3	9.3	
	2000	3.8	35411	22.3	43.1	34.6	11.7	
	2005	4.1	40060	21.9	42	36.1	12.9	
	2010	4.6	36805	22.1	46	31.8	9.8	
	2015	4.7	36622	20.4	45	34.7	11.6	
	2019	4.9	43228	21.8	43.9	34.4	11.6	
	1990	4.4	26611	17.9	36	46.1	15.1	
	1995	5.3	30801	17.3	35.8	46.9	15.7	
Israel (MENA)	2000	5.9	30897	16.7	35.6	47.7	16.3	
	2005	6.5	31900	15.4	35.6	48.9	16.8	
	2010	7.3	34512	15.1	34.9	50	17.9	
	2015	8	38084	16.5	36.9	46.7	14.8	
	2019	8.5	41673	16.7	37	46.3	14.4	
	1990	56.7	29436	24.7	48.4	26.9	6.2	
	1995	56.8	29913	23.2	47.9	28.8	7.4	
	2000	56.9	32613	22.2	47.2	30.6	8.1	
Italy (Europe)	2005	58.2	32996	22.4	47.3	30.3	8	
	2010	59.8	30855	22.1	47.4	30.5	7.8	
	2015	61	28380	21	48.4	30.6	7.7	
	2019	60.9	30056	20.9	46.8	32.3	8.8	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Jamaica (Latin America)	1990	2.4	9169	10.2	37.2	52.5	21.6	
	1995	2.5	10581	10.2	37.2	52.5	21.6	
	2000	2.7	9807	10.2	37.2	52.5	21.6	
	2005	2.7	9863	10.7	37.3	52	21.4	
	2010	2.8	9112	11.2	37.4	51.3	20.7	
	2015	2.9	8795	12.1	37.9	50	21	
	2019	2.9	8659	12.7	38.8	48.5	20.2	
Japan (Other Rich)	1990	123.6	26183	20.9	38.9	40.2	14.1	
	1995	125.6	25909	21.7	41.4	36.9	10	
	2000	126.9	25340	20.4	39.9	39.7	10.8	
	2005	127.8	26375	19	37.2	43.8	13	
	2010	128.1	26035	19.3	37.8	42.9	12.2	
	2015	126.8	28766	19.2	37.7	43	12.5	
	2019	125.7	30209	19.3	37.8	42.9	12.3	
Jordan (MENA)	1990	3.6	11924	16.2	32.7	51.1	20.5	
	1995	4.6	11748	17	33.5	49.5	18.9	
	2000	5.1	11929	18	34.7	47.3	16.5	
	2005	5.8	13932	18.1	35.1	46.7	15.8	
	2010	7.3	14043	17.4	31.8	50.8	21.7	
	2015	9.3	12100	18.1	34.8	47	16.2	
	2019	10.1	11390	18.1	34.8	47.1	16.3	
Kazakhstan (Central Asia)	1990	16.4	14383	17.9	41	41.2	13	
	1995	15.8	9277	17.8	42.2	40	11.8	
	2000	14.9	10011	17.3	40.8	41.9	13.6	
	2005	15.4	15092	19.9	40	40.1	14.2	
	2010	16.3	18008	21.3	40.3	38.4	12.8	
	2015	17.6	23169	22.6	41.3	36.2	11.9	
	2019	18.6	24027	21.6	40.2	38.2	12.6	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Kenya (<i>SubSaharan Africa</i>)	1990	23.7	4324	7.7	26.3	66	32.4	
	1995	27.8	3982	12.7	35.4	51.9	18.8	
	2000	32	3720	11.9	33.8	54.3	19.8	
	2005	36.6	3800	11.6	33.7	54.7	21.3	
	2010	42	4083	12.8	35.8	51.4	18.2	
	2015	47.9	4175	14	37.8	48.2	15	
	2019	52.6	4497	14	37.8	48.2	15	
	1990	42.9	12726	23.3	42.6	34.1	9.2	
	1995	45.1	16586	23.3	42.7	34	9.1	
Korea (<i>Other Asia</i>)	2000	47	19203	20.7	42	37.3	9.7	
	2005	48.2	21965	21.7	39.6	38.7	11.3	
	2010	49.6	25101	19.1	36.6	44.3	13.8	
	2015	51	27237	19	36.7	44.3	13.8	
	2019	51.6	28633	18.9	36.6	44.5	14	
	1990	2.1	74315	15.2	32	52.8	17.4	
	1995	1.6	122479	15.2	32	52.8	17.4	
	2000	2	103068	15.2	32	52.8	17.4	
	2005	2.3	120179	15.2	31.9	52.9	17.5	
Kuwait (<i>MENA</i>)	2010	3	91955	15.1	31.9	53	17.2	
	2015	3.8	84252	14.9	31.8	53.3	17.8	
	2019	4.2	78224	14.9	31.8	53.3	17.8	
	1990	4.4	4472	20.1	41.2	38.7	10.9	
	1995	4.6	2292	20.2	42.1	37.7	9.9	
	2000	4.9	2499	20.2	42.2	37.5	9.7	
	2005	5.1	2956	18.8	40	41.2	13.9	
	2010	5.4	3207	21.1	40.3	38.6	12.9	
	2015	6	3475	21.6	39.4	38.9	14.2	
Kyrgyzstan (<i>Central Asia</i>)	2019	6.4	4069	22.3	40.1	37.6	12.7	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Lao PDR (<i>Other Asia</i>)	1990	4.3	2861	18	37.7	44.3	16
	1995	4.8	3364	17.8	36.7	45.5	17.6
	2000	5.3	3926	18.3	37.4	44.3	16.8
	2005	5.8	4696	18.1	36.8	45.1	17.4
	2010	6.2	5944	17.8	36.7	45.5	17.4
	2015	6.7	7240	17.7	36.7	45.5	17.3
	2019	7.2	8290	17.7	36.7	45.6	17.3
	1990	2.7	15907	24.2	49.5	26.4	5.3
	1995	2.5	5937	19.5	46.8	33.7	9.2
Latvia (<i>Europe</i>)	2000	2.4	9049	18	45.7	36.3	9.8
	2005	2.3	14780	16.4	44	39.6	12
	2010	2.1	14612	19.4	45.1	35.5	9.3
	2015	2	18280	18.9	45.7	35.4	10.1
	2019	1.9	22224	19.1	46.5	34.4	9
	1990	2.8	9317	12.9	35	52.2	21.6
	1995	3.5	14935	12.9	35	52.2	21.6
	2000	3.8	13890	12.9	35	52.2	21.6
	2005	4.7	13469	12.9	35	52.2	21.6
Lebanon (<i>MENA</i>)	2010	5	17196	10.6	32.4	57	23.3
	2015	6.5	14297	10.6	32.3	57.1	23.4
	2019	6.9	13521	10.6	32.3	57.1	23.4
	1990	1.7	6062	7.2	31.9	60.8	23.6
	1995	1.9	5549	5.6	31.2	63.1	21.9
	2000	2	4164	8.3	34.3	57.3	19.4
	2005	2	4281	9	35	56	18.6
	2010	2	4519	8.4	34	57.6	18.9
	2015	2.1	4484	10.9	37.5	51.6	15.7
Lesotho (<i>SubSaharan Africa</i>)	2019	2.1	4799	11.9	38.9	49.1	14.3

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Liberia (<i>SubSaharan Africa</i>)	1990	2.1	2193	16.3	39.5	44.2	12.6
	1995	2	627	16.3	39.5	44.2	12.6
	2000	2.8	2133	16.3	39.5	44.2	12.6
	2005	3.2	1154	16.3	39.5	44.2	12.6
	2010	3.9	115	16.9	40.1	43	11.8
	2015	4.5	2043	17.2	40.9	42	11.4
	2019	4.9	1660	16.6	40.8	42.6	12
Libya (<i>MENA</i>)	1990	4.4	32827	16.4	38.7	44.8	14.1
	1995	4.9	28580	17.1	39.4	43.5	13.2
	2000	5.4	30888	16.8	38.7	44.6	13.9
	2005	5.8	34231	17.3	38.9	43.8	13
	2010	6.2	37599	17.7	39.3	43	12.8
	2015	6.4	19442	17.6	38.3	44.1	14.2
	2019	6.8	18470	17.7	38.9	43.4	13.3
Lithuania (<i>Europe</i>)	1990	3.7	14690	25	47.3	27.7	6.1
	1995	3.6	8781	19.7	47	33.3	8.5
	2000	3.5	11888	20.5	47.5	32.1	8
	2005	3.3	17806	18.4	46.3	35.3	9.5
	2010	3.1	19184	19.7	45.9	34.4	9
	2015	2.9	23578	18.1	45.2	36.6	10.6
	2019	2.8	28808	18	43.8	38.2	12.2
Luxembourg (<i>Europe</i>)	1990	.4	47689	22.3	41.4	36.3	14
	1995	.4	60980	21.8	41.7	36.5	14.1
	2000	.4	76474	21.2	41.9	36.9	14.1
	2005	.5	91878	20.4	39.9	39.7	16.1
	2010	.5	139309	20.9	42.8	36.3	13.7
	2015	.6	103469	20.7	45.8	33.5	10.6
	2019	.6	94992	20.6	46.6	32.8	9.2

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
<i>(Region)</i> Macao <i>(Other Asia)</i>	1990	.3	42229	22.6	47	30.4	8.1	
	1995	.4	49301	19.3	47.1	33.6	9.3	
	2000	.4	42665	18.1	46.4	35.6	10.4	
	2005	.5	57911	15	43.1	41.9	14.2	
	2010	.5	76313	14.3	43.1	42.6	15.1	
	2015	.6	76754	14.8	43.7	41.4	13.9	
	2019	.6	83086	14.8	43.7	41.4	13.9	
Macedonia <i>(Europe)</i>	1990	2	11164	25.5	49.4	25.1	5.4	
	1995	2	7920	18.8	51.8	29.4	6.6	
	2000	2	9205	18.6	51.9	29.4	7.2	
	2005	2.1	9470	18.3	51.4	30.3	6.7	
	2010	2.1	10861	18.2	49.3	32.6	7.3	
	2015	2.1	11787	20.2	48.7	31.1	7.6	
	2019	2.1	12572	20.9	48.6	30.5	7.9	
Madagascar <i>(SubSaharan Africa)</i>	1990	11.6	3177	13.2	36.9	49.8	15.7	
	1995	13.5	2675	14.2	38.3	47.5	15	
	2000	15.8	2853	13	38.1	48.9	13.7	
	2005	18.3	2677	14.4	35.6	49.9	18.3	
	2010	21.2	2626	13.4	34.7	51.9	18.5	
	2015	24.2	2484	13.3	36.4	50.3	15	
	2019	27	2579	13.3	36.4	50.3	15	
Malawi <i>(SubSaharan Africa)</i>	1990	9.4	1209	5.7	14.4	79.9	63.8	
	1995	9.8	1366	5.7	14.4	79.9	63.8	
	2000	11.1	1534	9.4	23.2	67.4	44.5	
	2005	12.6	1515	13.9	34.6	51.4	19.4	
	2010	14.5	1854	11.9	33	55.1	21.8	
	2015	16.7	1855	12.7	31.7	55.7	26.7	
	2019	18.6	1910	12.8	31.4	55.8	27.7	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country <i>(Region)</i>	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Malaysia <i>(Other Asia)</i>	1990	18	10867	15.9	39.7	44.4	18.5
	1995	20.5	13407	15.9	39.7	44.4	18.5
	2000	23.2	15193	15.9	39.7	44.4	18.5
	2005	25.7	18830	15.5	39.7	44.8	17.1
	2010	28.2	21968	16.2	40.6	43.2	17.2
	2015	30.3	25937	19	41.6	39.4	14.6
	2019	31.9	28406	19	41.6	39.4	14.6
Maldives <i>(Other Asia)</i>	1990	.2	11337	13.7	30.8	55.5	30.7
	1995	.3	12488	13.7	30.8	55.5	30.7
	2000	.3	14625	13.7	30.8	55.4	30.7
	2005	.3	11495	15.2	34.7	50.1	23.8
	2010	.4	11706	16.2	37.5	46.3	18.8
	2015	.5	11576	16.3	37.8	45.9	18.4
	2019	.5	12072	16.3	37.8	45.8	18.4
Mali <i>(SubSaharan Africa)</i>	1990	8.4	2317	10	31.9	58.1	21.5
	1995	9.6	2401	10.6	33	56.4	20.4
	2000	10.9	2600	13.7	38.4	47.9	14.7
	2005	12.8	3112	14.9	38.8	46.3	12.9
	2010	15	3319	17.7	41.7	40.6	9.5
	2015	17.4	3500	17.7	41.7	40.6	9.5
	2019	19.7	3758	17.7	41.7	40.6	9.5
Malta <i>(Europe)</i>	1990	.4	18155	23.5	47.5	28.9	7.4
	1995	.4	20185	23.5	47.5	28.9	7.4
	2000	.4	23033	23.5	47.5	28.9	7.4
	2005	.4	24255	23.5	47.5	28.9	7.4
	2010	.4	24161	22.9	47.5	29.6	7.7
	2015	.4	30150	21.2	45.2	33.6	9.9
	2019	.4	36394	21.3	45.2	33.5	10.3

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Mauritania (SubSaharan Africa)	1990	2	4587	11.4	33.6	55	22.9	
	1995	2.3	4686	15.5	40.1	44.4	12.4	
	2000	2.6	4710	14.8	40.1	45.1	11	
	2005	3	5156	14.9	37.4	47.7	14.9	
	2010	3.5	5525	16.9	42.5	40.6	10.3	
	2015	4	5354	18	42.1	39.9	10.6	
	2019	4.5	5683	18	42.1	39.9	10.6	
Mauritius (SubSaharan Africa)	1990	1.1	9556	16.5	38.4	45.1	13.5	
	1995	1.1	12188	16.5	38.4	45.1	13.5	
	2000	1.2	14576	16.5	38.4	45.1	13.5	
	2005	1.2	21462	16.5	38.4	45.1	13.5	
	2010	1.2	28050	15.6	36.7	47.7	15.7	
	2015	1.3	45970	15.6	36.7	47.7	16.1	
	2019	1.3	33792	16	37.3	46.8	15.7	
Mexico (Latin America)	1990	87.1	15376	7.9	38.3	53.9	23.2	
	1995	94.5	16766	7.9	38.3	53.9	23.2	
	2000	100.9	19712	7.9	38.3	53.9	23.2	
	2005	107.2	17848	8.2	36	55.8	21	
	2010	114.3	17746	7.1	33.8	59.1	25.1	
	2015	121.4	18419	7.2	31.1	61.6	31.6	
	2019	127.1	18255	8.3	32.2	59.5	30.3	
Moldova (Europe)	1990	4.4	7649	23.6	47.8	28.6	6.9	
	1995	4.3	3023	18.7	48.3	33	7.9	
	2000	4.2	2747	18.7	47.7	33.6	8.1	
	2005	4.2	4048	18.6	47	34.4	8.7	
	2010	4.1	4353	19.7	47	33.3	9.2	
	2015	4.1	4951	20.9	46.1	33	9.9	
	2019	4	5741	20.9	45.7	33.4	10.4	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Mongolia (<i>Other Asia</i>)	1990	2.2	6689	18.7	41.5	39.7	12.5	
	1995	2.3	6264	18.7	41.5	39.7	12.5	
	2000	2.4	6220	18.4	41	40.6	13.5	
	2005	2.5	7612	18	39.5	42.5	15	
	2010	2.7	8422	19	40.1	40.9	13.9	
	2015	3	12077	19.4	39.6	41	14.6	
	2019	3.2	13652	19.4	39.7	40.9	14.5	
Montenegro (<i>Europe</i>)	1990	.6	16572	22.9	50.1	27	5.7	
	1995	.6	7827	23.1	48.6	28.3	6.5	
	2000	.6	11594	23.2	46.6	30.2	7.9	
	2005	.6	12779	19.6	46.5	33.9	7.8	
	2010	.6	14789	18.2	48	33.8	8.6	
	2015	.6	16318	15.7	48.4	35.9	9.9	
	2019	.6	18571	15.7	48.2	36.1	10.1	
Morocco (<i>MENA</i>)	1990	24.8	6088	14.2	36.9	48.8	17.7	
	1995	27	5798	14.4	37.5	48	15.9	
	2000	28.8	6320	14	36.9	49.1	15.8	
	2005	30.5	7209	14.1	35.7	50.3	16.7	
	2010	32.3	8166	14.3	35.8	49.9	17.2	
	2015	34.7	8922	14.6	36.6	48.8	15	
	2019	36.5	9225	14.6	36.6	48.8	15	
Mozambique (<i>SubSaharan Africa</i>)	1990	13	871	8.9	29.5	61.6	23.9	
	1995	15.5	777	8.9	29.5	61.6	23.9	
	2000	17.7	974	10.6	30.1	59.3	24.9	
	2005	20.5	1305	11.8	31.9	56.3	23.8	
	2010	23.5	1668	10.9	30.9	58.2	25.8	
	2015	27	2088	8.9	26.9	64.2	30.9	
	2019	30.4	2070	8.9	26.9	64.2	30.9	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Myanmar (Other Asia)	1990	41.3	1029	16	33.3	50.7	26.7	
	1995	43.9	1285	16	33.3	50.7	26.7	
	2000	46.7	1714	16	33.2	50.8	26.7	
	2005	48.9	2615	16	33.2	50.8	26.7	
	2010	50.6	4497	16	33.2	50.8	26.7	
	2015	52.7	5883	16	33.2	50.8	26.7	
	2019	54	7114	16	33.2	50.8	26.7	
Namibia (SubSaharan Africa)	1990	1.4	9360	5.9	22.8	71.3	26.8	
	1995	1.6	10130	5.9	22.8	71.3	26.8	
	2000	1.8	9961	5.9	22.8	71.3	26.8	
	2005	1.9	11109	6.1	23.4	70.5	26.6	
	2010	2.1	12005	6.6	25.4	68.1	25.4	
	2015	2.3	14505	6.9	29.1	64	21.5	
	2019	2.5	12989	6.9	29.1	64	21.5	
Nepal (Other Asia)	1990	18.9	2012	17.7	37.3	45	17.4	
	1995	21.6	2222	17.7	37.3	45	17.4	
	2000	23.9	2476	19	39.3	41.8	14.4	
	2005	25.7	2590	19.3	39.6	41.1	13.8	
	2010	27	2914	19.5	39.7	40.8	13.5	
	2015	27	3490	19.5	40	40.4	13.1	
	2019	28.6	3832	19.6	40.1	40.4	13.1	
Netherlands (Europe)	1990	14.9	31689	26.5	47.3	26.2	5.7	
	1995	15.4	33637	25.6	47.4	27	5.8	
	2000	15.9	40230	26.2	46.7	27.1	6.1	
	2005	16.3	40639	24.4	46.4	29.2	7	
	2010	16.6	43203	24.2	47.1	28.7	6.6	
	2015	16.9	43213	23.5	47.5	28.9	6.8	
	2019	17	46331	23.1	47.4	29.5	7	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
New Zealand (Other Rich)	1990	3.4	23186	17.8	50.1	32.1	9.7	
	1995	3.7	23785	17.5	49.6	32.8	10	
	2000	3.9	25954	22.7	45.6	31.7	9.3	
	2005	4.1	28874	23.4	45.2	31.5	9.9	
	2010	4.4	29166	23.7	46.4	29.9	9.1	
	2015	4.6	32891	22.5	45	32.6	10.5	
	2019	4.8	35697	22.6	44.1	33.3	11.4	
	1990	4.2	5067	10.2	37.2	52.5	21.6	
	1995	4.7	4615	10.2	37.2	52.5	21.6	
Nicaragua (Latin America)	2000	5.1	5231	10.2	37.2	52.5	21.6	
	2005	5.4	5423	10.7	37.3	52	21.4	
	2010	5.8	5420	11.2	37.4	51.3	20.7	
	2015	6.2	6264	12.1	37.9	50	21	
	2019	6.5	5776	12.7	38.8	48.5	20.2	
	1990	8	1579	16.4	37.6	46.1	15.3	
	1995	9.5	1422	13.6	36.4	50	17.2	
	2000	11.3	1376	13	34.7	52.3	20.4	
	2005	13.6	1474	12.4	32.9	54.7	23.6	
Niger (SubSaharan Africa)	2010	16.5	1599	17.8	38.2	44	13	
	2015	20	1752	17.1	40.3	42.6	11.4	
	2019	23.3	1864	17.1	40.3	42.6	11.4	
	1990	95.2	5369	12.8	41.5	45.7	11.4	
	1995	107.9	5100	12.7	41	46.3	11.8	
	2000	122.3	5058	13.7	40.3	46	12.8	
	2005	138.9	6836	13.9	39.1	47	14.1	
	2010	158.5	8164	13.4	38.1	48.5	14.8	
	2015	181.1	9400	15.4	40	44.5	12.7	
Nigeria (SubSaharan Africa)	2019	201	8604	16.7	41.2	42.1	11.4	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
North Korea (<i>Other Asia</i>)	1990	20.3	1647	19.9	42.7	37.5	11.7	
	1995	21.9	1143	18.3	42.5	39.2	12.4	
	2000	22.9	1033	17.4	42	40.6	13	
	2005	23.9	1099	16	41.1	42.9	14.5	
	2010	24.5	1035	15.1	40.2	44.7	16.6	
	2015	25.2	1008	16.3	41.7	42	14.4	
	2019	25.7	896	16.3	41.6	42.1	14.6	
	1990	4.2	23127	30.9	46.3	22.8	5.8	
	1995	4.4	26263	28.7	44.4	26.8	8.4	
Norway (<i>Europe</i>)	2000	4.5	37042	26.4	42	31.5	12.2	
	2005	4.6	45618	25.8	41.9	32.3	12.8	
	2010	4.9	49978	26.3	42.1	31.6	11.9	
	2015	5.2	54311	26.5	43.7	29.8	9.5	
	2019	5.4	55314	25.6	43.4	30.9	10.4	
	1990	1.8	53993	10.7	34.8	54.5	17.9	
	1995	2.2	54089	10.7	34.8	54.5	18.1	
	2000	2.3	60375	10.7	34.8	54.5	18	
	2005	2.5	53379	10.7	34.8	54.5	18	
Oman (<i>MENA</i>)	2010	3	45811	10.8	34.9	54.4	17.7	
	2015	4.3	36394	10.8	34.9	54.3	17.7	
	2019	5	32313	10.7	34.9	54.4	17.8	
	1990	107.6	4949	18.8	39.1	42.1	14.6	
	1995	123.8	5373	20.6	38.2	41.1	16	
	2000	142.3	5294	19.2	37.3	43.4	17.1	
	2005	160.3	6053	18.4	36.1	45.5	18.4	
	2010	179.4	6117	20.8	38	41.2	15.4	
	2015	199.4	6580	19	36.2	44.8	18.4	
Pakistan (<i>Other Asia</i>)	2019	216.6	7132	19	36.2	44.7	18.4	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Palestine (MENA)	1990	2.1	1266	15.1	36.7	48.2	14.5
	1995	2.6	1934	15	36.6	48.4	14.7
	2000	3.2	1903	14.9	36.5	48.6	14.9
	2005	3.6	1760	14	36.1	49.9	16.2
	2010	4.1	1847	13.4	34.9	51.7	17.1
	2015	4.5	2066	13.9	35.8	50.2	16
	2019	5	2029	13.9	35.8	50.3	16.1
Panama (Latin America)	1990	2.5	10613	10.2	37.2	52.5	21.6
	1995	2.7	11758	10.2	37.2	52.5	21.6
	2000	3	12939	10.2	37.2	52.5	21.6
	2005	3.3	14008	10.7	37.3	52	21.4
	2010	3.6	17877	11.2	37.4	51.3	20.7
	2015	4	23459	12.1	37.9	50	21
	2019	4.2	25356	12.7	38.8	48.5	20.2
Papua New Guinea (Other Asia)	1990	4.6	3324	17.9	40.5	41.6	14.4
	1995	5.2	4213	14.9	41.1	44.1	15.3
	2000	5.8	3876	18.7	40.1	41.1	14.5
	2005	6.5	3647	16.7	39.5	43.8	14.7
	2010	7.3	4334	17.1	40.6	42.3	14.2
	2015	8.1	5344	18.7	41.2	40.1	12.8
	2019	8.8	5293	18.3	41.6	40.1	12.6
Paraguay (Latin America)	1990	4.2	12002	10.2	37.2	52.5	21.6
	1995	4.8	12201	10.2	37.2	52.5	21.6
	2000	5.3	10368	10.2	37.2	52.5	21.6
	2005	5.8	9857	10.7	37.3	52	21.4
	2010	6.2	12239	11.2	37.4	51.3	20.7
	2015	6.7	13300	12.1	37.9	50	21
	2019	7	14066	12.7	38.8	48.5	20.2

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Peru (Latin America)	1990	22.1	7463	8.2	36.4	55.3	25.6	
	1995	24.3	8616	8.2	36.4	55.3	25.6	
	2000	26.5	8634	8.2	36.4	55.3	25.6	
	2005	27.9	9203	7.3	34.3	58.4	27	
	2010	29	11554	8.5	31.6	59.9	33.8	
	2015	30.5	13798	7.7	27.8	64.5	42.3	
	2019	32.5	13558	7.8	28	64.2	42	
	1990	61.9	6156	14.7	37.3	48	18.1	
	1995	69.8	6237	12.2	33.9	53.9	24.7	
Philippines (Other Asia)	2000	78	6212	13.8	35.2	51	21.2	
	2005	86.3	6601	14.3	37.2	48.5	17.5	
	2010	94	7226	14.8	37.1	48.1	17.3	
	2015	102.1	8718	15.6	37.8	46.6	16.7	
	2019	108.1	10166	15.5	37.8	46.7	16.8	
	1990	38	10090	28.2	47.8	24	5.4	
	1995	38.5	11319	24	45.2	30.8	11	
	2000	38.6	14173	22.3	44.9	32.9	10.3	
	2005	38.4	15454	19.5	44.5	36.1	13.4	
Poland (Europe)	2010	38.3	18926	20.3	43.3	36.4	13.3	
	2015	38	21523	19.8	42.4	37.8	14.9	
	2019	37.9	25332	20.1	42.8	37.1	14.6	
	1990	9.9	20196	20.7	44.5	34.8	10.7	
	1995	10.1	20888	17.2	44.3	38.5	11.6	
	2000	10.3	24278	17.9	43.8	38.3	11.3	
	2005	10.5	24404	17.7	43.2	39.1	10.6	
	2010	10.6	23891	19	43.3	37.8	9.9	
	2015	10.4	23196	18.8	43.9	37.3	11.1	
Portugal (Europe)	2019	10.2	25841	19.4	43.2	37.4	11.6	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Qatar (<i>MENA</i>)	1990	.5	77631	13	34.9	52.1	18.5	
	1995	.5	78323	13	34.9	52.1	18.5	
	2000	.6	114865	13	34.9	52.1	18.5	
	2005	.9	106824	13	34.9	52.1	18.6	
	2010	1.9	88918	13.9	33.6	52.5	19	
Romania (<i>Europe</i>)	2015	2.6	96770	15	32.7	52.3	18.5	
	2019	2.8	94231	14.6	32.8	52.6	19	
	1990	23.5	12255	28.8	46	25.2	6	
	1995	23	9278	24.3	44.6	31.1	8.8	
	2000	22.1	9784	21	44.1	34.9	11.1	
	2005	21.4	12858	17.5	43.1	39.4	13.4	
	2010	20.5	15455	17.1	43	39.9	14.4	
	2015	19.9	18116	15.7	42	42.3	16.5	
	2019	19.4	21916	16.7	44.5	38.9	13.2	
	1990	147.7	17862	29.5	47	23.6	7.3	
Russian Federation (<i>Central Asia</i>)	1995	148.5	9447	14.1	43.6	42.3	13.8	
	2000	146.9	12519	13.1	36.4	50.5	23.8	
	2005	143.8	16910	14.3	37.8	48	25.4	
	2010	142.9	19473	16.8	37.9	45.4	19.7	
	2015	146.3	21062	17.4	37.4	45.2	19.6	
	2019	147.1	21304	17.7	36.3	46.1	21.3	
	1990	7.3	1610	16.5	36.7	46.8	15.4	
	1995	5.8	1136	13.7	33.2	53.1	19.6	
	2000	7.9	1403	10.9	29.8	59.4	23.9	
	2005	8.8	1782	9.6	27.9	62.5	26.9	
Rwanda (<i>SubSaharan Africa</i>)	2010	10	2265	11.4	30.2	58.4	23.5	
	2015	11.4	2702	12.6	33	54.4	20.6	
	2019	12.6	3153	12.8	33.9	53.4	19.7	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Sao Tome and Principe (<i>SubSaharan Africa</i>)	1990	.1	3799	18.2	42.8	39	9	
	1995	.1	3734	18.2	42.8	39	9	
	2000	.1	3387	18.2	42.8	39	9	
	2005	.2	3795	18.6	42.6	38.9	8.9	
	2010	.2	4284	19	42.4	38.7	8.8	
	2015	.2	4890	11.3	28.4	60.3	33.4	
	2019	.2	5050	8.2	22.9	68.9	43.3	
	1990	16.2	70300	13.1	33.4	53.5	18.6	
	1995	18.6	71483	13.1	33.4	53.5	18.6	
Saudi Arabia (<i>MENA</i>)	2000	20.7	63207	13.1	33.4	53.5	18.6	
	2005	23.8	62708	13.1	33.4	53.5	18.6	
	2010	27.4	57603	13.1	33.3	53.6	18.9	
	2015	31.7	55936	13.1	33.3	53.6	18.9	
	2019	34.3	52636	13.1	33.3	53.6	18.9	
	1990	7.5	4069	8.5	30.8	60.7	25	
	1995	8.7	3818	13.8	34.8	51.4	19.1	
	2000	9.8	3975	13.7	35.1	51.2	18.9	
	2005	11.1	4331	14.7	39	46.2	13.3	
Senegal (<i>SubSaharan Africa</i>)	2010	12.7	4390	14.4	38.6	47	13.1	
	2015	14.6	4568	14.3	38.5	47.2	13	
	2019	16.3	5159	14.3	38.5	47.2	13	
	1990	9.5	12702	21.7	48.1	30.1	9.2	
	1995	9.9	5310	21.7	48.1	30.2	9.2	
	2000	7.5	7187	21.2	45.9	32.9	10.9	
	2005	7.4	10194	18.6	46	35.4	11.7	
	2010	7.3	11601	16.1	47.2	36.8	11.4	
	2015	7.1	11699	14.4	46.6	39	13.8	
Serbia (<i>Europe</i>)	2019	7	13531	16.3	48.4	35.3	11.2	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Seychelles (<i>SubSaharan Africa</i>)	1990	.1	18857	13.1	34.7	52.2	22.1
	1995	.1	18136	13.1	34.7	52.2	22.1
	2000	.1	21333	13.1	34.8	52.1	21.9
	2005	.1	17727	13	35.3	51.7	20.6
	2010	.1	21296	13	35.4	51.6	20.4
	2015	.1	23951	13	35.4	51.6	20.4
	2019	.1	27494	13	35.4	51.6	20.4
	1990	4.3	1913	4.5	37.1	58.5	20.2
	1995	4.3	1594	8.3	37.1	54.6	17.3
Sierra Leone (<i>SubSaharan Africa</i>)	2000	4.6	1589	12.1	37.2	50.7	14.4
	2005	5.6	1762	15.1	38	46.9	12.2
	2010	6.4	2019	16.9	40.1	43	10.8
	2015	7.2	2134	16.7	38.7	44.5	13
	2019	7.8	2318	16.3	37.4	46.3	14.8
	1990	3	36044	22.1	41	37	11
	1995	3.5	44889	24.3	43.2	32.5	9.8
	2000	4	48261	19.7	39.3	41.1	13.1
	2005	4.3	55120	20.7	38.7	40.6	13.5
Singapore (<i>Other Asia</i>)	2010	5.1	67466	19.7	38	42.3	13.3
	2015	5.5	69684	18.5	36.3	45.2	13.9
	2019	5.7	70798	18.5	36.3	45.3	13.9
	1990	5.3	13508	30.1	47.4	22.5	4.7
	1995	5.4	10464	27.5	47.6	25	6.2
	2000	5.4	11720	25.7	47.5	26.9	7
	2005	5.4	15307	22.8	47.7	29.5	8.4
	2010	5.4	19631	23.9	46.5	29.6	9.2
	2015	5.4	22038	26.1	46.3	27.6	8
Slovakia (<i>Europe</i>)	2019	5.5	24688	25.2	45.3	29.5	10.6

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Slovenia (Europe)	1990	2	18188	29.2	48.9	21.9	4.2	
	1995	2	17833	24.8	47.8	27.4	6.1	
	2000	2	20335	24.3	47	28.7	7.2	
	2005	2	23453	22.8	46.9	30.3	7.6	
	2010	2	24441	23.1	47.3	29.6	7.1	
	2015	2.1	23851	23.1	48	28.9	7.2	
	2019	2.1	28644	24	46.6	29.4	8.2	
Somalia (SubSaharan Africa)	1990	7.2	1471	12.7	32.9	54.4	23.5	
	1995	7.5	991	12.6	32.6	54.9	24.3	
	2000	8.9	960	15.5	36.2	48.3	17.3	
	2005	10.4	978	15.7	36.4	48	16.8	
	2010	12	983	15	36.1	48.9	17.2	
	2015	13.8	1239	14.6	36.5	48.8	16.2	
	2019	15.4	1368	14.5	36.1	49.3	16.7	
South Africa (SubSaharan Africa)	1990	35.5	12239	15.5	38.6	45.9	9.9	
	1995	39.4	11240	15	37.7	47.3	11.7	
	2000	43.7	11186	11.5	35.8	52.7	15.2	
	2005	47.8	12969	11.9	30.2	57.9	18	
	2010	51.1	13966	8.9	30.3	60.7	18.6	
	2015	54.4	13718	6.2	28.7	65.1	19.2	
	2019	57.6	13110	6.2	28.7	65.1	19.2	
South Sudan (MENA)	1990	5.5	3951	11.4	39.4	49.1	14.1	
	1995	5.1	4512	11.4	39.4	49.1	14.1	
	2000	6.2	4788	11.4	39.4	49.1	14.1	
	2005	7.5	5633	11.4	39.4	49.1	14.1	
	2010	9.5	8481	11.4	39.4	49.1	14.1	
	2015	10.7	3107	11.4	39.4	49.1	14.1	
	2019	11.1	3233	11.4	39.4	49.1	14.1	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
<i>(Region)</i> Spain <i>(Europe)</i>	1990	38.9	23974	19.1	43.5	37.4	12.5
	1995	39.8	24159	19.8	44.2	36	12.3
	2000	40.7	27264	20.8	45.2	34.1	11
	2005	44	28763	21.5	45.2	33.2	10.6
	2010	46.7	27969	21.6	44.6	33.8	11.3
	2015	46.3	28702	21.6	44.3	34.1	11.8
	2019	46.3	31764	21.9	43.9	34.2	12.2
Sri Lanka <i>(Other Asia)</i>	1990	17.3	4729	18.8	37.4	43.8	17.2
	1995	18.2	5609	17.5	37.9	44.6	15.8
	2000	18.8	6594	15	35.6	49.5	19.8
	2005	19.5	7470	15.4	35.2	49.3	20.8
	2010	20.3	9638	16.9	36.1	47	19.2
	2015	20.9	12091	16	35.1	49	20.6
	2019	21.3	13352	15.9	35	49.1	20.6
Sudan <i>(MENA)</i>	1990	25.6	2982	16.6	41.4	42	11.2
	1995	29.2	3405	16.6	41.4	42	11.2
	2000	33.5	3613	16.6	41.4	42	11.2
	2005	38.5	4251	16.6	41.4	42	11.2
	2010	34.5	6497	16.7	40.8	42.4	12
	2015	38.9	6693	17.1	38.6	44.4	15.1
	2019	42.8	5936	17.1	38.6	44.4	15.1
Suriname <i>(Latin America)</i>	1990	.4	13845	10.2	37.2	52.5	21.6
	1995	.4	12569	10.2	37.2	52.5	21.6
	2000	.5	11695	10.2	37.2	52.5	21.6
	2005	.5	14312	10.7	37.3	52	21.4
	2010	.5	16165	11.2	37.4	51.3	20.7
	2015	.6	16518	12.1	37.9	50	21
	2019	.6	13704	12.7	38.8	48.5	20.2

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Swaziland (SubSaharan Africa)	1990	.8	11293	6.7	25.8	67.5	31.5
	1995	.9	10915	7.1	26.4	66.5	29.9
	2000	1	10916	9.1	29.1	61.8	21.6
	2005	1	12423	9.3	31.6	59.1	19.7
	2010	1.1	12221	9.3	33.3	57.3	18.3
	2015	1.1	13367	8.5	32.3	59.2	19.1
	2019	1.1	12897	8.4	32.1	59.6	19.2
	1990	8.6	25861	28.7	46	25.4	7.4
	1995	8.8	25030	26.1	42.7	31.2	11.8
Sweden (Europe)	2000	8.9	30658	27.2	42.8	29.9	9.6
	2005	9	35030	25.7	42.6	31.6	11.2
	2010	9.4	37364	23.8	45.5	30.7	10.5
	2015	9.5	41247	25	45	30	9.9
	2019	9.7	44192	25.6	45.5	28.8	9
	1990	6.7	42397	24.4	45.5	30.1	10.1
	1995	7	41346	25.4	45.9	28.6	9.1
	2000	7.1	46054	24	44.1	31.9	11.2
	2005	7.4	46517	23.1	43.1	33.8	12.7
Switzerland (Europe)	2010	7.8	49330	23.2	43.1	33.7	12.5
	2015	8.3	49063	23.8	44.1	32.1	11.3
	2019	8.6	50813	23.6	44.5	31.9	10.9
	1990	12.4	8130	14.8	36.9	48.3	14.2
	1995	14.3	9773	14.8	36.8	48.4	14.4
	2000	16.4	8785	14.8	36.9	48.3	14.3
	2005	18.4	9719	14.8	36.9	48.3	14.3
	2010	21.4	9889	14.8	37	48.1	14
	2015	18	5019	14.9	37.1	48.1	13.9
Syrian Arab Republic (MENA)	2019	17.1	5217	14.8	37	48.2	14

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Taiwan (Other Asia)	1990	20.4	17311	27.1	44.7	28.2	7.2	
	1995	21.4	22656	27	44.7	28.2	7	
	2000	22.3	27464	25.1	43.9	31	8.8	
	2005	22.8	30814	25	42	33	9.7	
	2010	23.2	35828	23.2	40.8	36	11.1	
	2015	23.5	38530	23	41.1	35.9	10.5	
	2019	23.7	40855	23	41.1	35.9	10.5	
Tajikistan (Central Asia)	1990	5.3	5502	20.6	41.3	38.1	12.2	
	1995	5.8	2052	21	42.3	36.7	11.1	
	2000	6.2	2161	19.8	41.6	38.6	12	
	2005	6.8	2650	19.2	40.1	40.7	14.7	
	2010	7.5	3459	20	40.7	39.2	13.1	
	2015	8.5	4317	19.2	41.1	39.7	12.3	
	2019	9.3	5167	19.1	40.2	40.7	13.3	
Tanzania (SubSaharan Africa)	1990	24.5	2360	16.8	40.6	42.6	11.4	
	1995	28.9	2201	16.3	40.1	43.6	11.9	
	2000	32.6	2375	15.7	39.4	44.9	12.5	
	2005	37.4	2877	14.7	37.5	47.8	15	
	2010	43.1	3443	15.1	36.6	48.3	16.1	
	2015	50	4069	14.6	38.8	46.6	13.9	
	2019	54.7	4601	14.1	35.2	50.7	17.9	
Thailand (Other Asia)	1990	56.6	8217	8.9	35.1	56	23.1	
	1995	59.5	10206	8.9	35.1	56	23.1	
	2000	63	8807	8.9	35.1	56	23.1	
	2005	65.4	10436	11.2	34.3	54.5	22.7	
	2010	67.2	11759	12.5	32.8	54.7	22.4	
	2015	68.7	12596	14.3	35.9	49.7	19	
	2019	69.6	14001	13.2	33.7	53.1	20.2	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Timor-Leste (Other Asia)	1990	.7	4324	17.2	38.6	44.2	15.8
	1995	.8	6159	17.2	38.6	44.2	15.8
	2000	.9	11524	17.2	38.5	44.3	15.9
	2005	1	12899	20	39.7	40.2	14
	2010	1.1	24160	21.2	39.8	39	13.5
	2015	1.2	16936	21.2	39.5	39.3	13.7
	2019	1.3	14066	21.2	39.5	39.4	13.7
Togo (SubSaharan Africa)	1990	3.8	2262	13.3	37.6	49	13.9
	1995	4.2	2022	13.3	37.6	49	13.9
	2000	4.9	2055	13.3	37.6	49	13.9
	2005	5.6	1879	13.3	37.6	49	13.9
	2010	6.4	2021	11.9	37.5	50.6	15.1
	2015	7.3	2456	12.9	39.5	47.6	13.7
	2019	8.1	2561	12.9	39.5	47.6	13.7
Trinidad and Tobago (Latin America)	1990	1.2	12923	10.2	37.2	52.5	21.6
	1995	1.3	14835	10.2	37.2	52.5	21.6
	2000	1.3	19240	10.2	37.2	52.5	21.6
	2005	1.3	26225	10.7	37.3	52	21.4
	2010	1.3	30069	11.2	37.4	51.3	20.7
	2015	1.4	31286	12.1	37.9	50	21
	2019	1.4	27138	12.7	38.8	48.5	20.2
Tunisia (MENA)	1990	8.2	7056	14.4	39.1	46.5	14.3
	1995	9.1	7217	13.4	38.1	48.5	16.8
	2000	9.7	8340	13.9	37.8	48.2	15.8
	2005	10.1	9108	15.5	39.5	45	12.5
	2010	10.6	10206	16.5	41.3	42.3	10.8
	2015	11.2	10594	17.9	41.4	40.7	10.7
	2019	11.7	10787	17.9	41.4	40.7	10.7

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Turkey (<i>MENA</i>)	1990	53.9	14940	14.2	31.6	54.2	21.3	
	1995	58.5	15308	14.5	30.9	54.6	22	
	2000	63.2	16256	14.5	30.9	54.6	22	
	2005	67.9	18544	16.3	34	49.6	17.9	
	2010	72.3	19464	16.8	33.1	50.1	19.2	
	2015	78.5	24764	15.8	32.5	51.7	21.1	
	2019	83.4	24949	15.4	31.3	53.3	23.4	
	1990	3.7	12499	14.7	37.2	48.1	18.8	
	1995	4.2	6673	14.8	37.7	47.4	18.1	
Turkmenistan (<i>Central Asia</i>)	2000	4.5	7407	14.8	37.7	47.5	18.2	
	2005	4.8	8487	14.8	37.4	47.8	18.5	
	2010	5.1	12041	14.7	37.1	48.2	18.8	
	2015	5.6	17572	14.8	37.6	47.6	18.3	
	2019	5.9	20905	14.7	37	48.2	18.9	
	1990	250.2	35338	16.9	44.7	38.4	14.2	
	1995	266.6	38599	15.7	44.6	39.7	14.3	
	2000	282.4	45885	15.1	42.3	42.6	17.3	
	2005	296	49009	14.4	42.4	43.2	17.7	
USA (<i>North America</i>)	2010	309.8	47538	13.9	42.5	43.7	17.6	
	2015	321.7	50708	13.2	41.3	45.5	18.8	
	2019	329.9	53261	13.5	41.1	45.3	18.7	
	1990	17.4	1508	12.8	37.4	49.8	16.2	
	1995	20.4	1868	14.5	37	48.5	15.3	
	2000	23.7	2147	12.8	33.5	53.7	20.3	
	2005	27.7	2598	13	35	52	17.8	
	2010	32.4	3221	13.1	34.2	52.8	17.3	
	2015	38.2	3358	13.3	35.6	51.1	16.5	
Uganda (<i>SubSaharan Africa</i>)	2019	44.3	3506	13.1	35.4	51.5	16.9	

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
<i>(Region)</i> Ukraine <i>(Central Asia)</i>	1990	51.5	10296	26.5	47.8	25.7	5.9
	1995	50.9	4647	22.9	46.8	30.3	8.3
	2000	48.8	4177	21.9	46.3	31.8	9.2
	2005	46.9	6689	20.2	45.8	34.1	10.6
	2010	45.8	7040	20.2	45.9	33.9	10.1
	2015	44.9	6377	20.1	45.6	34.3	10.9
	2019	44	7475	20.2	45.3	34.5	11.5
	1990	1.8	140093	12.7	33.1	54.2	18.1
	1995	2.4	125112	12.7	33	54.3	18.2
United Arab Emirates <i>(MENA)</i>	2000	3.1	122601	12.4	33	54.6	17.8
	2005	4.6	96166	11.9	32.8	55.3	17
	2010	8.5	53194	11.5	32.7	55.8	16.2
	2015	9.3	63957	11.5	32.8	55.8	16.1
	2019	9.8	64161	11.5	32.7	55.8	16.2
	1990	57.2	22141	20.1	47.5	32.4	8.5
	1995	58	25047	20	45.7	34.2	10.3
	2000	58.9	29883	20.1	44.7	35.1	11.3
	2005	60.4	33508	19.3	42.7	38	14.4
United Kingdom <i>(Europe)</i>	2010	62.8	32577	20.5	44.5	35	12.7
	2015	65	33397	20.3	43.8	35.9	12.6
	2019	66.6	34875	21.5	43.3	35.2	12.7
	1990	3.1	11347	15.1	38.3	46.6	18.7
	1995	3.2	13389	15.1	38.3	46.6	18.7
	2000	3.3	14826	15.1	38.3	46.6	18.7
	2005	3.3	14327	14.7	38.1	47.1	18.3
	2010	3.4	18087	17.4	41	41.6	14.3
	2015	3.4	20613	17.5	39.6	42.9	17.1
Uruguay <i>(Latin America)</i>	2019	3.5	21031	18.1	40.3	41.6	16.9

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)			
				Bot. 50%	Middle 40%	Top 10%	Top 1%
Uzbekistan (<i>Central Asia</i>)	1990	20.4	5340	13.5	38.4	48.1	17
	1995	22.8	3806	13.4	39.1	47.5	16.3
	2000	24.8	4068	17.2	38.8	44.1	15.9
	2005	26.4	4548	17.1	38.3	44.5	15.7
	2010	28.5	5781	16.9	38	45.1	16.2
	2015	30.9	7196	17.3	38.5	44.2	15.4
	2019	33	8394	16.9	37.9	45.2	16.3
Venezuela (<i>Latin America</i>)	1990	19.6	22294	10.2	37.2	52.5	21.6
	1995	21.9	22832	10.2	37.2	52.5	21.6
	2000	24.2	20312	10.2	37.2	52.5	21.6
	2005	26.4	20530	10.7	37.3	52	21.4
	2010	28.4	21298	11.2	37.4	51.3	20.7
	2015	30.1	19494	12.1	37.9	50	21
	2019	28.5	9512	12.7	38.8	48.5	20.2
Viet Nam (<i>Other Asia</i>)	1990	68	2110	17.4	38.2	44.4	15.2
	1995	74.9	2708	17.5	37.7	44.8	15.4
	2000	79.9	3250	17.1	37.5	45.5	15.6
	2005	83.8	3977	17.3	38.9	43.8	14.7
	2010	88	4643	16.4	37	46.6	18
	2015	92.7	5444	18.2	39.4	42.4	14.9
	2019	96.5	6689	18.1	39.3	42.6	15.2
Yemen (<i>MENA</i>)	1990	11.7	7524	14.9	36.6	48.5	15.1
	1995	14.9	7163	14.8	36.5	48.6	15.2
	2000	17.4	7328	14.9	36.6	48.6	15.1
	2005	20.1	7254	14.9	36.6	48.6	15.1
	2010	23.2	7417	14.9	36.7	48.4	14.9
	2015	26.5	4991	14.9	36.7	48.3	14.8
	2019	29.2	3578	14.9	36.7	48.4	14.9

Table 9.1
Summary inequality and demographic statistics by country, 1990-2019

Country (Region)	Year	Popul. million	Avg. income EUR 2019	Nat. income shares (%)				
				Bot. 50%	Middle 40%	Top 10%	Top 1%	
Zambia (SubSaharan Africa)	1990	8	3643	5.6	35.6	58.8	18.9	
	1995	9.1	2783	10	34.9	55.1	19.1	
	2000	10.4	3412	11.9	34.6	53.5	19.7	
	2005	11.9	3980	8.4	31.3	60.3	22.2	
	2010	13.6	5230	8.1	29	62.9	24.9	
	2015	15.9	5990	7.3	31.2	61.5	23.1	
	2019	17.9	5933	7.3	31.2	61.5	23.1	
	1990	.7	2067	16.8	40.6	42.6	11.4	
Zanzibar (SubSaharan Africa)	1995	.8	2281	16.3	40.1	43.6	11.9	
	2000	.9	2697	15.7	39.4	44.9	12.5	
	2005	1.1	3224	14.7	37.5	47.8	15	
	2010	1.3	3582	15.1	36.6	48.3	16.1	
	2015	1.4	4088	14.6	38.8	46.6	13.9	
	2019	1.6	4935	14.1	35.2	50.7	17.9	
	1990	10.4	4832	8.9	29.5	61.6	27.3	
	1995	11.4	4525	10.3	31.1	58.6	24.9	
Zimbabwe (SubSaharan Africa)	2000	11.9	4713	11.3	32.8	55.9	22.4	
	2005	12.1	3292	12	34.5	53.6	20	
	2010	12.7	3114	12.7	36.1	51.2	17.7	
	2015	13.8	4001	12.4	36	51.6	17.3	
	2019	14.6	3974	12.2	35.8	52	17.3	

Sources. Author based on WID.world data. Inequality measures include survey, tax data and national accounts. See [8] and www.wid.world for methodological details. Distribution of pretax, post pension and unemployment insurance transfers, per adult income. Average income values are in PPP Euros 2019.

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