Online Appendix

Appendix for L.N. Allen, S. Wigley, & H. Holmer, "Assessing the association between *Corporate Financial Influence* and implementation of policies to tackle commercial determinants of non-communicable diseases: a cross-sectional analysis of 172 countries", *Social Science & Medicine*, 297(114825), 2022.

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1. Implementation policies

1.1 Full definitions of the commercial policies included in the WHO NCD progress monitors

Tobacco policy cluster

- Member State has implemented measures to reduce affordability by increasing excise taxes and prices on tobacco products
- Member State has implemented measures to eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport
- Member State has implemented plain/ standardized packaging and/or large graphic health warnings on all tobacco packages
- Member State has enacted and enforced comprehensive bans on tobacco advertising, promotion and sponsorship
- (2017 and 2020 only) Member State has implemented effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke

Alcohol policy cluster

- Member State has enacted and enforced restrictions on the physical availability of retailed alcohol (via reduced hours of sale)
- Member State has enacted and enforced bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)
- Member State has increased excise taxes on alcoholic beverages

Food policy cluster

- Member State has adopted national policies to reduce population salt/sodium consumption
- Member State adopted national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply
- Member State has implemented the WHO set of recommendations on marketing of foods and non-alcoholic beverages to children
- Member State has legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes

1.2 Aggregation method

Following the approach of WHO[1] and Allen et al.[2 3] we constructed policy scores for each country, according 1 point for each fully implemented policy, 0.5 points for each partially implemented policy, and 0 points for non-implemented policies and those for which no data were available. We constructed overall aggregate scores for each country, ranging from 0-12, as well as policy cluster scores for tobacco (range 0-5), alcohol (range 0-3) and food (range 0-4) policies. Tobacco mass media campaigns was excluded from the regression analyses because it is was not covered by the 2015 NCD Progress Report.

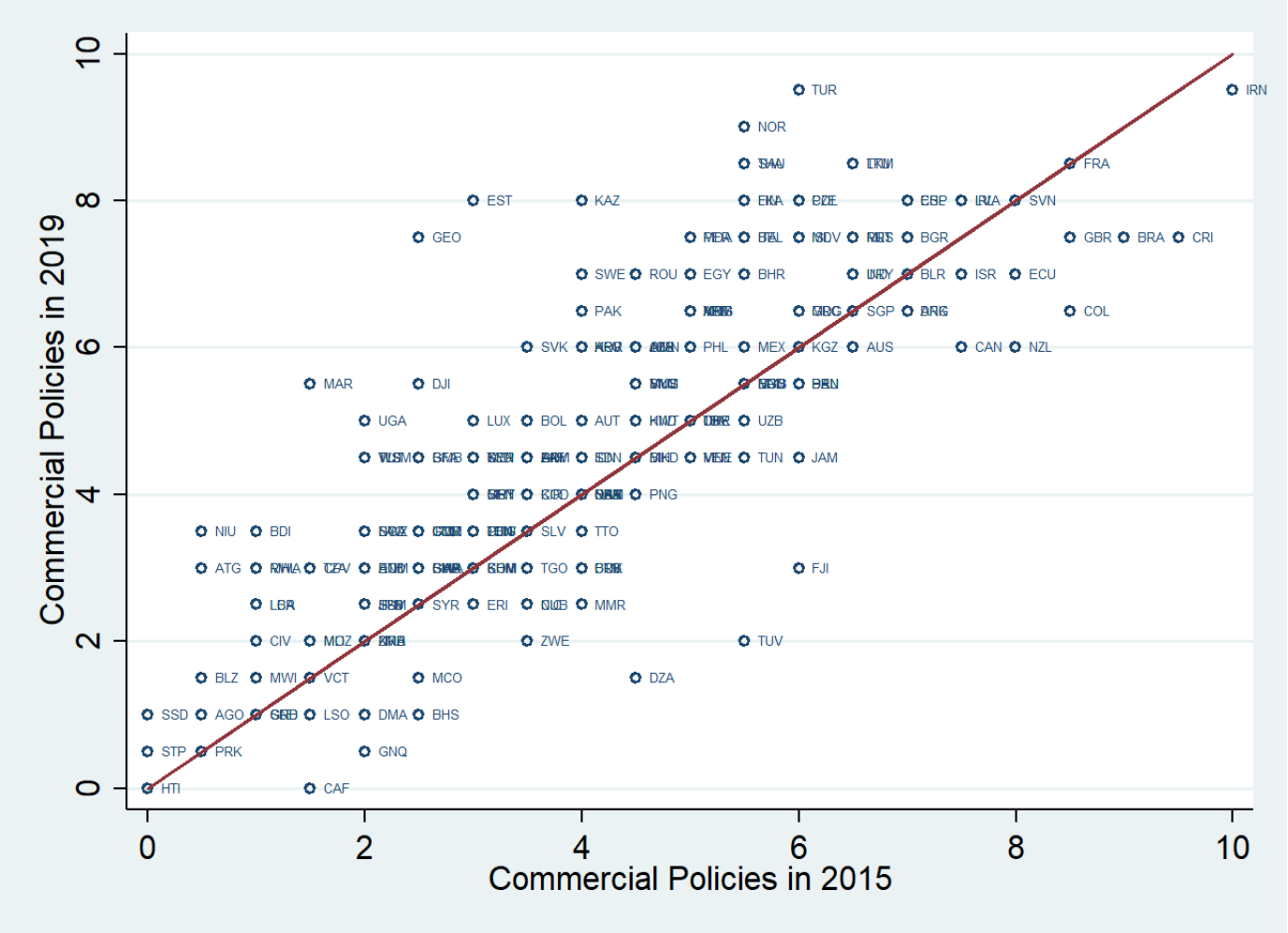
1.3 Country ranking for 2020 commercial policy implementation score

Rank	Country	Implementation (%)
1	Turkey	88
2	United Kingdom	83
2	Norway	83
2	Iran	83
5	Senegal	75
6	Saint Lucia	71
6	Italy	71
6	Indonesia	71
6	Finland	71
6	Brazil	71
11	Tuvalu	67
11	Slovenia	67
11	Nepal	67
11	Latvia	67
11	Kazakhstan	67
11	Germany	67
11	Cambodia	67
11	Bulgaria	67
11	Belgium	67
11	Bangladesh	67
21	Uruguay	63
21	Sweden	63
21	Peru	63
21	Papua New Guinea	63
21	Panama	63
21	North Macedonia	63
21	Malta	63
21	Ireland	63
21	India	63
21	Egypt	63
21	Chad	63
21	Brunei Darussalam	63
33	Viet Nam	58
33	Thailand	58
33	Tajikistan	58
33	Serbia	58
33	Portugal	58
33	Palau	58
33	Madagascar	58
33	Luxembourg	58
33	Kuwait	58
33	Israel	58
33	Guinea	58
33	Gabon	58
33	Djibouti	58
33	Chile	58
33	Australia	58
48	Yemen	54
48	Suriname	54
48	Philippines	54
48	New Zealand	54
48	Montenegro	54
48	Malaysia	54
48	Gambia	54
48	Cameroon	54
48	Azerbaijan	54
57	Venezuela	50
57	Turkmenistan	50
57	Syrian Arab Republic	50
57	Mexico	50

57	Iceland	50
57	Costa Rica	50
57	Belarus	50
57	Austria	50
57	Afghanistan	50
66	United States of America	46
66	Ukraine	46
66	Uganda	46
66	Seychelles	46
66	Saudi Arabia	46
66	Poland	46
66	Pakistan	46
66	Nauru	46
66	Namibia	46
66	Moldova	46
66	Japan	46
66	Hungary	46
66	France	46
66	Eritrea	46
66	Czech Republic	46
66	Congo, Rep.	46
66	Cabo Verde	46
66	Benin	46
66	Antigua and Barbuda	46
85	Tunisia	42
85	Sri Lanka	42
85	Spain	42
85	South Africa	42
85	Singapore	42
85	San Marino	42
85	Russian Federation	42
85	Libya	42
85	Kiribati	42
85	Georgia	42
85	Fiji	42
85	Eswatini	42
85	Ecuador	42
85	Bolivia	42
85	Barbados	42
100	Vanuatu	38
100	Tonga	38
100	Togo	38
100	Samoa	38
100	Qatar	38
100	Myanmar	38
100	Monaco	38
100	Maldives	38
100	Kenya	38
100	Jordan	38
100	Jamaica	38
100	Iraq	38
100	Greece	38
100	Ghana	38
100	El Salvador	38
100	DPR of Korea	38
100	Cyprus	38
100	Cuba	38
100	Cook Islands	38
100	Colombia	38
100	Armenia	38
100	Argentina	38
122	Timor-Leste	33
122	Slovak Republic	33
122	Saint Kitts and Nevis	33
122	Rwanda	33
122	Romania	33
122	Netherlands	33
122	Mongolia	33
122	Lithuania	33
122	Lao PDR	33
122	Kyrgyz Republic	33
122	Honduras	33
122	Guyana	33

122	Estonia	33
122	Bahrain	33
136	Trinidad and Tobago	29
136	Switzerland	29
136	Solomon Islands	29
136	Sao Tome and Principe	29
136	Saint Vincent and the Grenadines	29
136	Paraguay	29
136	Niue	29
136	Nigeria	29
136	Niger	29
136	Mauritius	29
136	Lesotho	29
136	Guatemala	29
136	DR Congo	29
136	Dominica	29
136	Denmark	29
136	Canada	29
136	Burkina Faso	29
136	Bosnia and Herzegovina	29
136	Angola	29
136	Albania	29
156	Uzbekistan	25
156	United Arab Emirates	25
156	Somalia	25
156	Oman	25
156	Nicaragua	25
156	Morocco	25
156	Marshall Islands	25
156	Lebanon	25
156	Korea, Rep.	25
156	Equatorial Guinea	25
156	Dominican Republic	25
156	Croatia	25
156	Burundi	25
156	Bhutan	25
156	Belize	25
156	Andorra	25
172	Mauritania	21
172	Malawi	21
172	Liberia	21
172	Haiti	21
172	Grenada	21
172	Ethiopia	21
172	Central African Republic	21
172	Botswana	21
180	Zimbabwe	17
180	Zambia	17
180	Sierra Leone	17
180	Micronesia	17
180	Mali	17
180	Côte d'Ivoire	17
180	Comoros	17
180	China	17
188	Mozambique	13
188	Bahamas	13
190	United Republic of Tanzania	8
190	Sudan	8
190	Guinea-Bissau	8
190	Algeria	8
194	South Sudan	4

1.4 Commercial policies implementation in 2015 and 2020



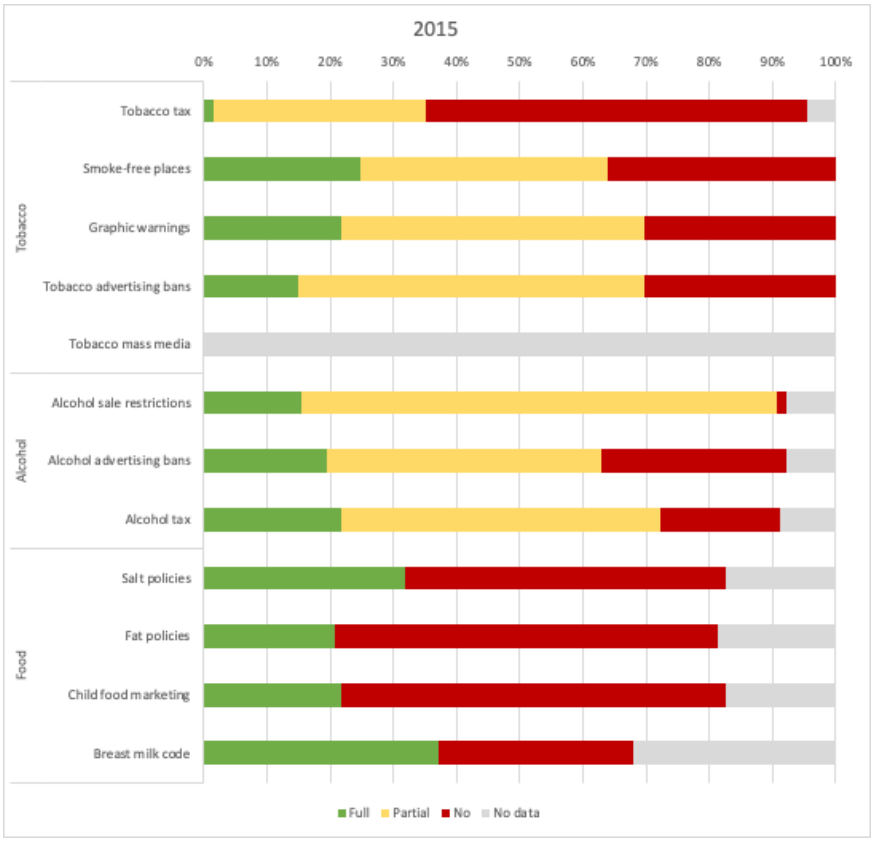
Note: Tobacco mass media policies not included because not covered by 2015 NCD Progress Report

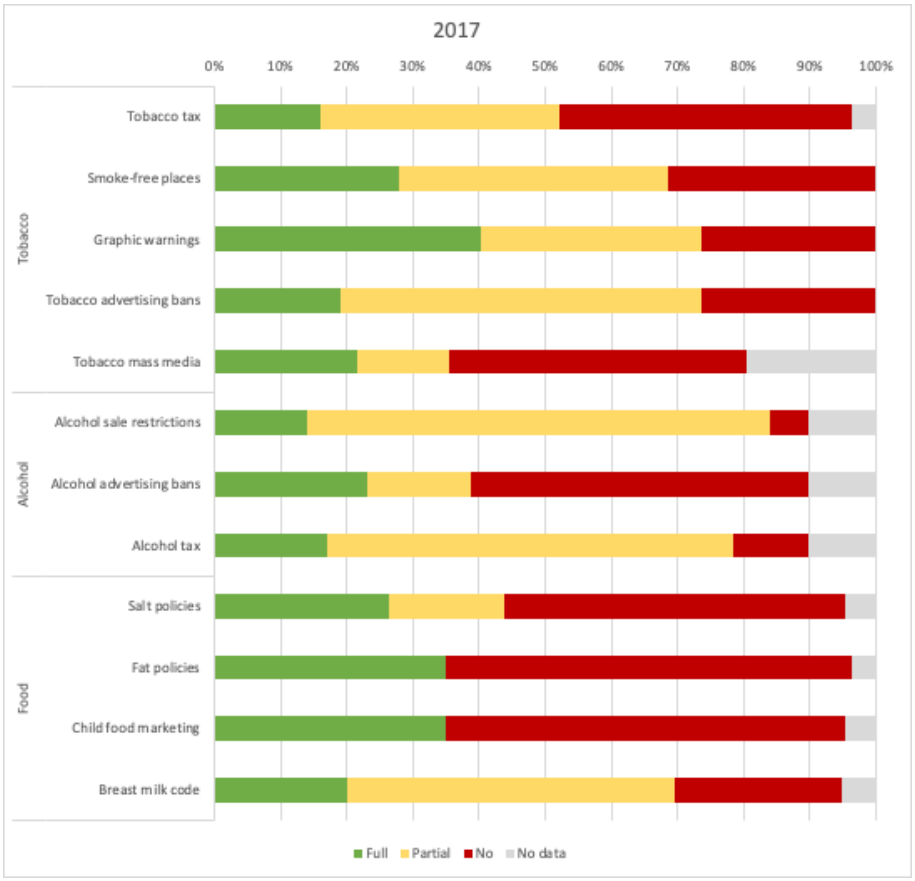
1.5 Mean implementation scores by income group and region

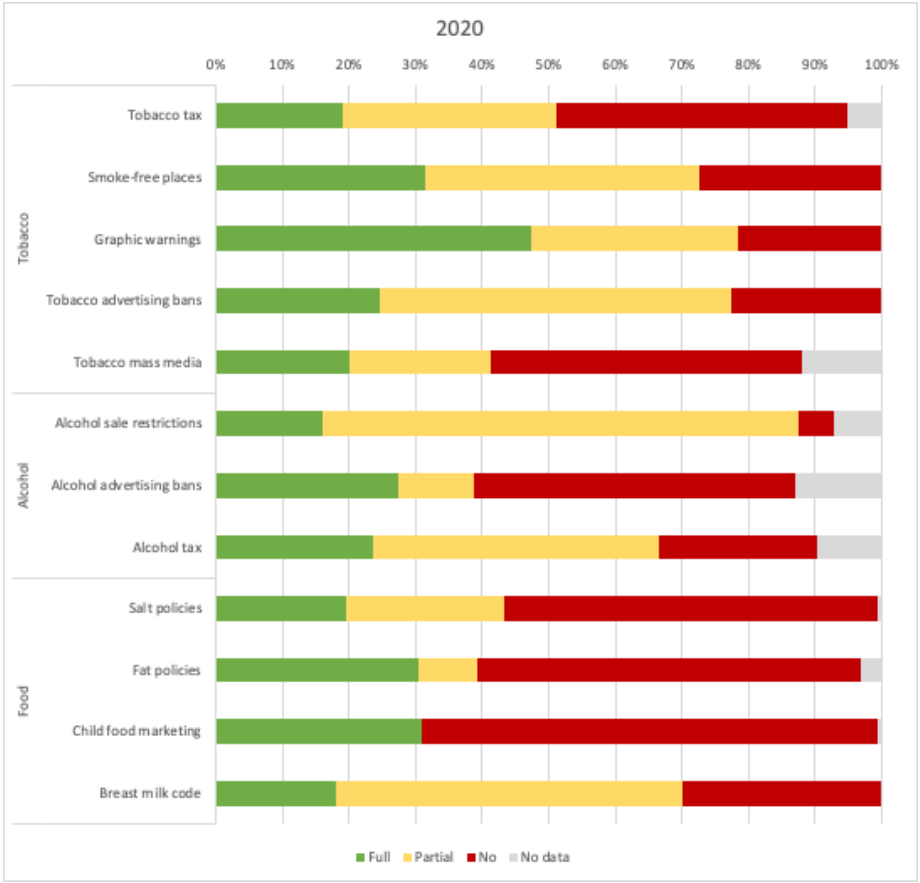
		Mean policy implementation score		
		2015	2017	2020
Income group	Low income	2.339	3.081	3.081
	Lower middle-income	3.385	4.000	4.240
	Upper middle-income	4.491	5.009	4.855
	High income	5.116	5.705	5.946
WHO region	Africa	2.383	3.266	3.043
	Americas	4.200	3.986	4.157
	Eastern Mediterranean	4.333	5.643	5.524
	Europe	5.302	6.217	6.481
	South-East Asia Region	4.455	4.455	5.182
	Western Pacific Region	3.778	4.019	4.111
Other	Small island developing states	2.813	2.875	3.200
	Former Soviet states	5.200	6.400	6.800

Note: Tobacco mass media policies not included because not covered by 2015 NCD Progress Report.

1.6 Stacked bar charts: Implementation status for each policy in 2015, 2017, and 2020




2017
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Tobacco
Tobacco tax
Smoke-free places
Graphic warnings
Tobacco advertising bans
Tobacco mass media
Alcohol
Alcohol sale restrictions
Alcohol advertising bans
Alcohol tax
Food
Salt policies
Fat policies
Child food marketing
Breast milk code
Full
Partial
No
No data


2020
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Tobacco
Tobacco tax
Smoke-free places
Graphic warnings
Tobacco advertising bans
Tobacco mass media
Alcohol
Alcohol sale restrictions
Alcohol advertising bans
Alcohol tax
Food
Salt policies
Fat policies
Child food marketing
Breast milk code
Full
Partial
No
No data

2. Corporate Financial Influence Index (CFII)

Latent factor analysis was used to construct an index measuring the extent to which corporations can use their financial resources to directly influence policy making in each country. The procedure for identifying the input variables, as well as the precise methodology used in the factor analysis, is described in the following sections.

2.1 Literature review

Background

We conducted a literature review to identify indicators that can be used to assess the extent to which commercial actors are able to directly influence the policy-making process. The central issue is not whether commercial interests can influence policy per se, but whether they have an outsized influence over policy-making due to their financial clout.[4] The latter would grant them an advantage over non-commercial interest groups, including those advocating for public health measures to constrain the sale and marketing of unhealthy products. Much depends, therefore, on whether there are formal restrictions on the use of corporate resources to directly influence policy-makers.

The legal and political science literature on political financing and the role of interest groups is extensive.[5–10] Similarly a large public health literature has emerged on the use of corporate resources to influence health policy.[11–16] Based on these two literatures we identified four regulatory areas that affect the ability of commercial interests to use their greater financial resources to directly influence politicians and political parties and, thereby, the policy-making process:

(1) *Campaign financing*: whether there are limits on campaign donations from companies and/or a requirement to publicly disclose the source and amount of those donations.

(2) *Business and financial interests of politicians*: whether the financial and business interests of politicians must be publicly disclosed.

(3) *Lobbying transparency*: whether the activities of lobbyists must be publicly disclosed.

(4) *Enforcement*: whether an independent administrative or judicial body (e.g. electoral monitoring board, general prosecutor, etc.) has the capacity to enforce financing limits and disclosure requirements (i.e. 1-3).

It is important to note that most of the channels through which corporations can use their resources to influence policy-making do not involve corrupt incentives in the traditional sense (i.e. the offering of material incentives that personally benefit politicians). Lobbying activities and campaign donations typically do not provide material benefits to individual politicians. Campaign donations enhance the electoral chances of politicians and political parties, but individual politicians may only materially benefit if they embezzle those donations.[17] Nevertheless, corrupt incentives remain one way in which commercial interests can gain unequal influence over policy. This is covered by the second regulatory area above.

We set aside the ability of corporations to *indirectly* influence policy-makers by shaping consumer preferences (via, for example, product advertising and media ownership) and, thereby, the policies that citizens support.[13] Instead we focus on the ability of corporations to *directly* influence the decisions of policy-makers.

We aimed to construct a robust overall indicator that captures the level of regulation in each of these four areas. To achieve this, we sought to identify individual indicators for each regulatory area that could then be combined via factor analysis to form a *de novo* composite indicator of corporate financial influence over policy-making.

Method

Search strategy

To identify indicators of corporate influence over political decision-making aligned with the four domains listed above, we searched the following global political data collections on July 7th 2021: Varieties of Democracy (V-Dem) data set,[18] Quality of Government (QoG) standard data set,[19] and Institute for Democracy and Electoral Assistance's (IDEA) Political Finance Database.[20] In addition, we searched the first 1,000 records of Google Scholar using the following broad search

terms; ("disclosure" OR "transparency") AND ("politician" OR "lobbying" OR "donation" OR “campaign financing”) AND "data". We limited the search to the years 2005-2021.

Inclusion criteria

We included metrics that met the following criteria:

- Conceptual alignment with the four regulatory areas noted above
- Global coverage: data available for a threshold of >80% (>165) WHO Member States
- Data gathering methodology is publicly available and complete
- Data is comparable between countries

Two authors (SW and LA) independently reviewed each potential indicator for alignment with the inclusion criteria. Disagreements were resolved by discussion and - where necessary – arbitration by the third author (HH). The rationale for inclusion or exclusion was documented for each indicator.

2.2 Input variables

The following table presents the set of relevant indicators that have global coverage, as well as the rationale for inclusion and the quality of the data gathering process in each case.

Indicator	Description	Rationale	Source	Country coverage	Data gathering methodology publicly available and complete?	Data gathering method	Comparable between countries?	Scale	Years	Include/exclude
Campaign finance										
Disclosure of campaign donations	To what extent are there disclosure requirements for donations to national election campaigns?	Absence of transparency increases the opportunity for commercial interests to influence politicians and political parties and, thereby, policy.	V-Dem Dataset v11.1[18] [variable name: v2eldonate]	172	yes	Coded by multiple country experts and converted to interval scale using Bayesian item response theory measurement model.	yes	Interval scale where the lowest score indicates the least disclosure and the highest score indicates the most disclosure.	2015, 2017, 2019	Meets inclusion criteria - include
Public campaign finance	To what extent is significant public financing available for parties' and/or candidates' campaigns for national office?	Greater public financing counter-balances the influence of large private donors on politicians and political parties and, thereby, policy-making.	V-Dem Dataset v11.1[18] [variable name: v2elpubfin]	172	yes	Coded by multiple country experts and converted to interval scale using Bayesian item response theory measurement model.	yes	Interval scale where the lowest score indicates the least public financing and highest score indicates the most public financing.	2015, 2017, 2019	Less direct, but still meets inclusion criteria - include
Corporate campaign donations	Is there a ban on donations from domestic or foreign interests to political parties or candidates?	Ban reduces the opportunity for commercial interests to influence politicians and political parties and, thereby, policy.	IDEA (2021) [20]	180	yes	Expert coded based on laws, regulations, and reports. Aggregate score is the average of questions 1-4 listed under 'Bans and limits on private income' in the IDEA database: 1. Is there a ban on donations from foreign interests to political parties?	yes	Interval scale ranging from 0 to 1, where 0 represents no restrictions on donations from corporations and 1 represents the most restrictions on donations from corporations.	2019	Discussion around whether the foreign element for this composite marker excludes it. We decided to include on the basis that most foreign donations are likely to come from corporate actors.

						2. Is there a ban on donations from foreign interests to candidates? 3. Is there a ban on corporate donations to political parties? 4. Is there a ban on corporate donations to candidates?				
Disclosure of interests										
Disclosure by politicians	Do the law or regulations of the country require politicians to provide either financial and/or business interests disclosures and are the disclosures publicly available?	Absence of transparency increases the opportunity for commercial interests to influence politicians and political parties and, thereby, policy.	Djankov et al (2010)[21] [variable names: disc_req and ft_pubprac_all]	175	yes	Expert coded based on laws, regulations, and information requests. Score is the sum of disc_req and ft_pubprac_all	yes	Ordinal scale: 0 Disclosure not required and not publicly available 1 Disclosure required or publicly available 1.5 Disclosure required but financial or business disclosures not publicly available. 2 Disclosure required and publicly available	2010	Data are quite old; however, this is a slow-moving domain. As such we decided to include, but run a sensitivity analysis that drops this variable from the latent factor analysis.
Legislature corrupt activities	To what extent do members of the legislature abuse their position for financial gain?	Willingness of politicians to accept material incentives for personal gain increases the opportunity for commercial interests to influence policy.	V-Dem Dataset v11.1[18] [variable name: v2lgcrrpt]	172	yes	Coded by multiple country experts and converted to interval scale using Bayesian item response theory measurement model.	yes	Interval scale where the lowest score indicates the most corruption and the highest score indicates the least corruption.	2015, 2017, 2019	We noted that we are interested in licit and illicit financial influence, not just corruption. However this indicator is likely to helpfully capture non-disclosures, and is a proxy for opportunities for influencing politicians. We agreed to include.
Lobbying transparency										

Registration of lobbying activities	Are lobbyists for commercial interests required to register their identity and the company they represent?	Absence of transparency increases the opportunity for commercial interests to influence politicians and political parties and, thereby, policy.	IDEA (2021)[20]; OECD (2021)[4]; Chari et al (2019)[22]	127	yes	Expert coded based on laws and regulations. This variables was constructed based on the three sources noted. Each country was sorted according to the following four categories: (1) no disclosure requirements, (2) voluntary registration of lobbying activities, (3) some lobbying activities must be registered, (4) most lobbying activities must be registered. The binary variable takes the value of 1 if some or most activities must be registered, otherwise 0.	yes	Dichotomous variable which takes the value of zero if there is no requirement to register lobbying activities, otherwise 1.	2019	Because data is not available for a sufficient number of countries we did not use this indicator for the construction of CFII. We assume that the latent variable identified using factor analysis will also capture this regulatory area - countries with demanding disclosure requirements for campaign donations and the financial/business interests of politicians are more likely to have disclosure requirement for lobbying activities, and vice versa. By way of robustness we will test whether our regression results are sensitive to the inclusion of this variable in the factor analysis.
Enforcement										
Executive oversight	If executive branch officials were engaged in unconstitutional, illegal, or unethical activity, how likely is it that a body other than the legislature, such as a comptroller	Indicates the likelihood that bans and disclosure requirements are enforced in practice.	V-Dem Dataset v11.1[18] [variable name: v2lgotovst]	172	yes	Coded by multiple country experts and converted to interval scale using Bayesian item response theory measurement model.	yes	Interval scale where the lowest score indicates the least oversight and the highest score indicates the most oversight.	2015, 2017, 2019	Meets the inclusion criteria - include.

general, general prosecutor, or ombudsman, would question or investigate them and issue an unfavorable decision or report?

We identified a total of six indicators that were methodologically robust, available for >85% of countries, internationally comparable, and conceptually aligned with the ability of commercial actors to influence policymakers. As we were only able to find lobbying transparency data for 127 countries that input indicator was set aside. However, it is reasonable to expect that the other three regulatory areas are correlated with the level of transparency in terms of lobbying activities. That is, polities that require the disclosure of campaign donations and business/financial interests are more likely to require disclosure by lobbyists. For the sake of robustness we checked whether our regression results are sensitive to the inclusion of the lobbying transparency indicator during the construction of the Corporate Financial Influence Index (CFII) (see section 6 below).

Finally, we note that the industry-specific Global Tobacco Interference Index (GTII)[23] did not fit our criteria because it only covered 33 countries in 2019 and 57 countries in 2020. In addition, the focus of our index is the opportunity for all industries (including food, tobacco, and alcohol) to directly influence policy-making. Nevertheless, the GTII represents a valuable resource. As the country coverage for that index grows it will be important to examine its association with the implementation of tobacco policies in each country (as reported, for example, in upcoming NCD progress reports).

2.3 Excluded micro-states

The following 22 micro-states are not covered by the V-Dem data that was used to construct the index:
Andorra, Antigua and Barbuda, Bahamas, Belize, Brunei Darussalam, Cook Islands, Dominica, Micronesia, Grenada, Kiribati, Saint Kitts and Nevis, Saint Lucia, Monaco, Marshall Islands, Niue, Nauru, Palau, San Marino, Tonga, Tuvalu, Saint Vincent and the Grenadines, Samoa.

Thus, our index for corporate financial influence over policy-making encompasses all WHO member states except the above-listed micro-states (172 countries in total).

2.4 Correlation matrix for input variables

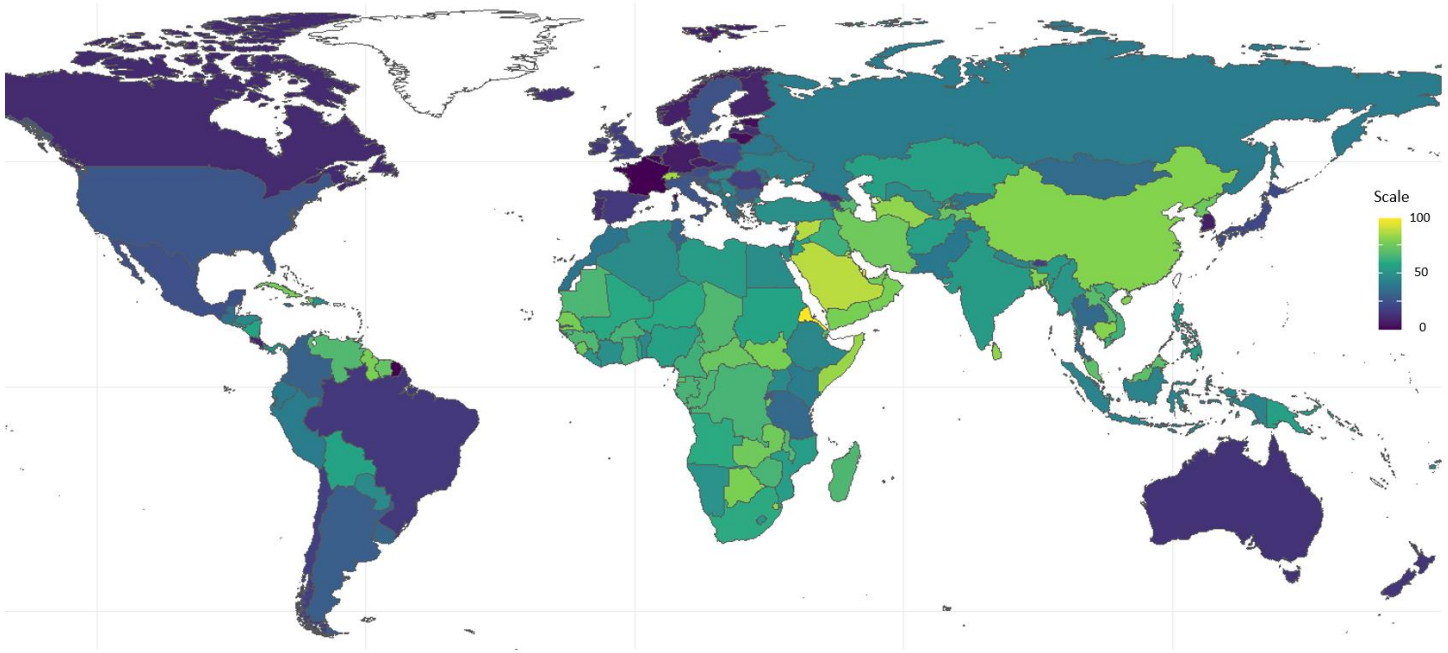
	Disclosure of campaign donations (V-Dem)	Executive oversight (V-Dem)	Legislature corrupt activities (V-Dem)	Public campaign finance (V-Dem)	Disclosure by politicians (Djankov et al)	Corporate campaign donations (IDEA)
Disclosure of campaign donations (V-Dem)	1					
Executive oversight (V-Dem)	0.498***	1				
Legislature corrupt activities (V-Dem)	0.456***	0.632***	1			
Public campaign finance (V-Dem)	0.669***	0.436***	0.424***	1		
Disclosure by politicians (Djankov et al)	0.516***	0.449***	0.200***	0.383***	1	
Corporate campaign donations (IDEA)	0.479***	0.0897	-0.0487	0.306***	0.247***	1
	* p<0.05	** p<0.01	*** p<0.001			

2.5 Latent factor analysis

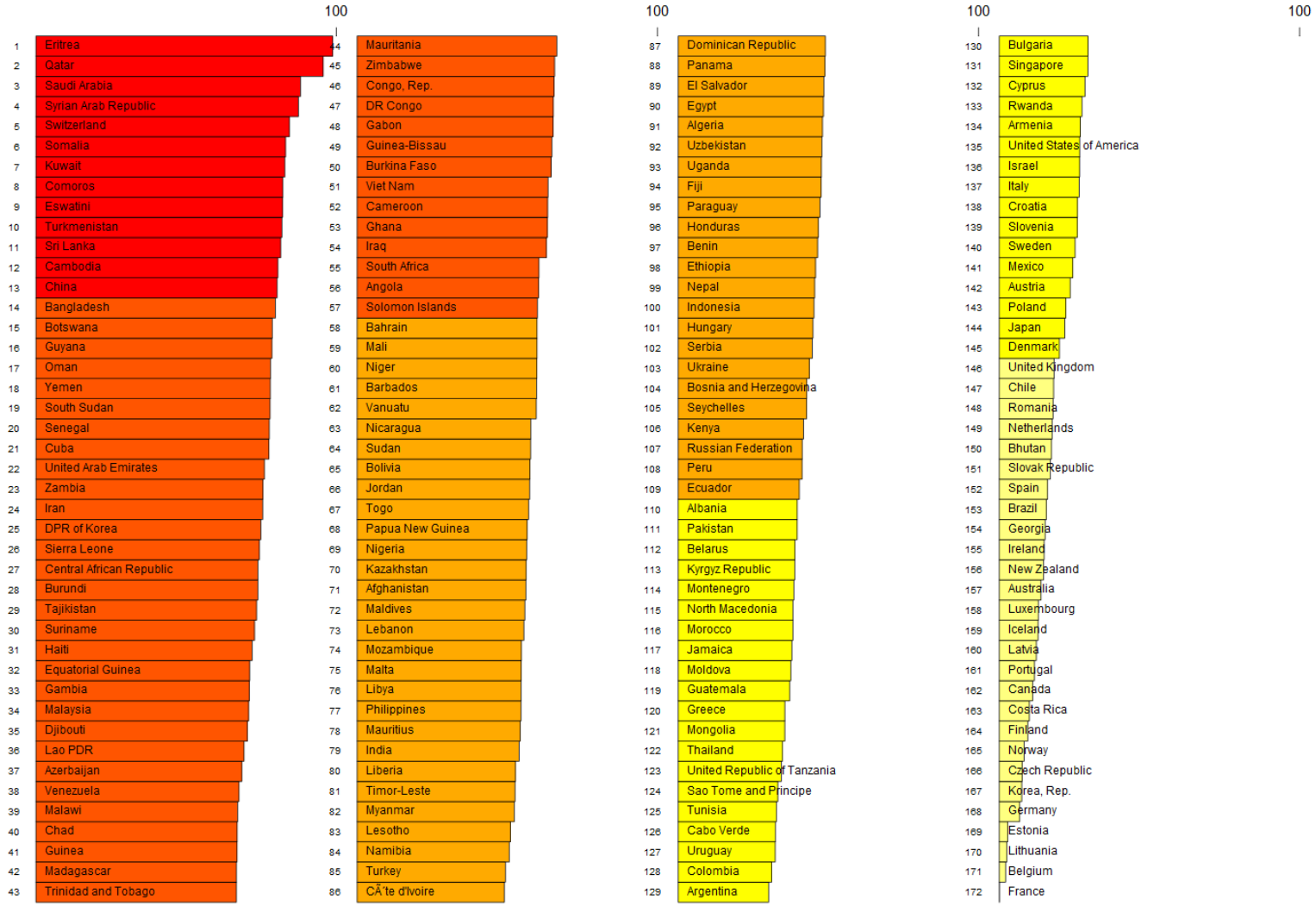
Structural equation modelling (SEM), with full information maximum likelihood, was used to identify the latent variable underlying the six input indicators. The factor loadings were checked to ensure they are statistically significant and of sufficient magnitude. In addition, goodness of fit statistics were used to check whether the latent variable was sufficiently related to the input variables. The model was then used to produce a factor score reflecting the level of corporate financial influence over policy-making in each country. Those scores were then rescaled to range from 0 (least corporate influence) to 100 (most corporate influence). The results of this analysis are summarized below.

Statistical package and replication: The factor analysis was carried out using Stata 14.2 and the command –SEM, method(mlmv) –. The data and replication code necessary to reproduce these results are available at https://github.com/drlukeallen/CDOH-policy-implementation.

2.6 Map of Corporate Financial Influence in 2019

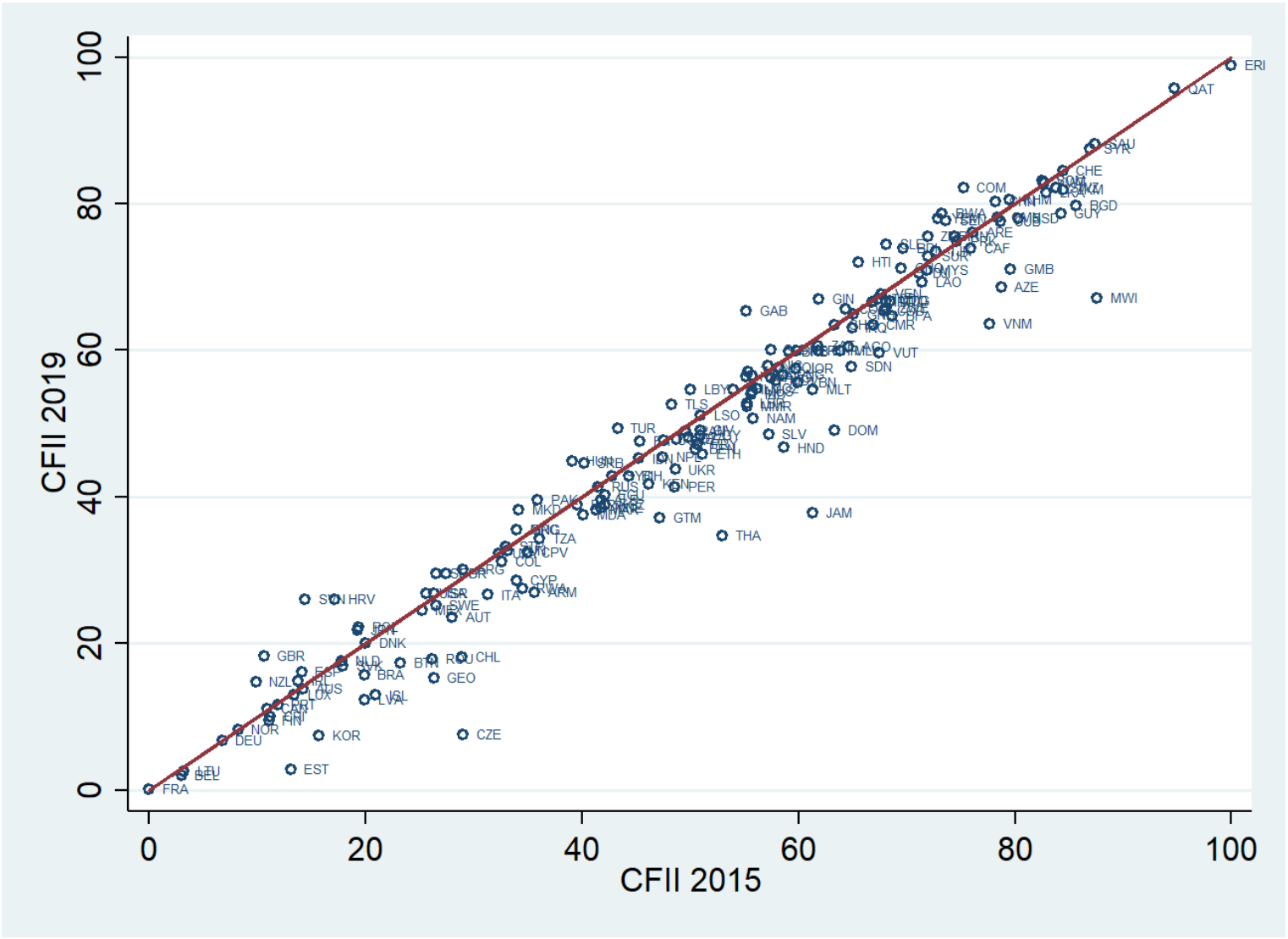


2.7 Country ranking for 2019 Corporate Financial Influence Index



Note: Higher scores indicate greater opportunity for corporate financial influence over policy-making.

2.8 Corporate Financial Influence in 2015 and 2019



3. Variables and descriptive statistics

3.1 Variables descriptions and sources

Variable	Description	Years	Countries	Type	Source
Dependent variables					
Commercial policies	See section 1	2015, 2017, 2019	194	Continuous	WHO NCD Progress Monitors
Food policies	See section 1	2015, 2017, 2019	194	Continuous	WHO NCD Progress Monitors
Tobacco policies	See section 1	2015, 2017, 2019	194	Continuous	WHO NCD Progress Monitors
Alcohol policies	See section 1	2015, 2017, 2019	194	Continuous	WHO NCD Progress Monitors
Independent variable of interest					
Corporate Financial Influence	Captures the opportunities available to corporations to use their financial resources to directly influence policy-making. See section 2	2015, 2017, 2019	172	Continuous	Various (see section 2)
Control variables					
GDP per capita (logged)	GDP per capita in base 2010 international dollars.	2015, 2017, 2019	186	Continuous	Global Burden of Disease 2019 Covariates[24] (variable name: GDPpc_id_b2010)
Population aged 65+ (logged)	Population ages 65 and above as a percentage of the total population.	2015, 2017, 2019	183	Continuous	World Bank, World Development Indicators[25] (variable name: SP.POP.65UP.TO)
Urbanization (logged)	Percentage of population living in urban areas	2015, 2017, 2019	194	Continuous	World Urbanization Prospects 2018[26]
Multiplicative Polyarchy Index	Captures level of democracy. Combines scores for suffrage, free and fair elections, elected officials, freedom of civil and political organization, and freedom of expression.	2015, 2017, 2019	172	Continuous	Varieties of Democracy (V-Dem) Dataset version 11.1[18] (variable name: v2x_mpi)
Muslim population in 2000 (logged)	Proportion of population that adhered to the Muslim religion in the year 2000	Fixed factor	189	Continuous	McCleary and Barro[27] (variable name: muslim00)
Ethno-linguistic fractionalization in 2005 (logged)	Linguistic diversity in 2005	Fixed factor	194	Continuous	Desmet et al [28] (variable name: elf1)
Small Island Developing States	Island states facing specific social, economic and environmental vulnerabilities.	Fixed factor	194	Categorical	UN Sustainable Development Goals[29]
Legal origin	Historical roots of each country's commercial laws (German, Scandinavian, French, British, Socialist)	Fixed factor	194	Categorical	La Porta et al, 2008[30]

Continent	Africa, Asia, Oceania, Europe, North America, South America	Fixed factor	194	Categorical	UN Statistical Yearbook[31]
Risk factors					
Total smoking prevalence, ages 15+	Percentage population ages 15 and above who smoke a tobacco product (age standardized).	2015	194	Continuous	Reitsma et al, 2021[32]
Alcohol consumption per capita, ages 15+	Total alcohol consumed per person (15 years of age or older) over a calendar year, in litres of pure alcohol.	2015	187	Continuous	World Bank, World Development Indictors[25] (variable name: SH.ALC.PCAP.L)
Hypertension prevalence, ages 18+	Prevalence of raised blood pressure (age standardized)	2015	191	Continuous	NCD Risk Factor Collaboration[33]
Prevalence BMI >30, ages 20+	Percentage of defined population with a body mass index (BMI) of 30 kg/m2 or higher (age standardized)	2015	194	Continuous	WHO Global Health Observatory [34] (variable name: NCD_BMI_30)
Prevalence BMI >2 standard deviations above median, ages 5-19	Percentage of defined population with a body mass index (BMI) greater than 2 standard deviation above the median (crude estimate).	2015	194	Continuous	WHO Global Health Observatory[34] (variable name: NCD_BMI_PLUS2)

3.2 Summary statistics

Variable	count	mean	sd	min	max	p50	p25	p75	Missing (%)
Commercial policies	582	4.46134	2.18935	0	10	4.5	3	6	0
Food policies	582	1.341924	1.285399	0	4	1	0	2.5	0
Tobacco policies	582	1.790378	1.022068	0	4	2	1	2.5	0
Alcohol policies	582	1.329038	0.7719694	0	3	1.5	1	2	0
Salt policies	582	0.3281787	0.4317795	0	1	0	0	1	0
Fat policies	582	0.3015464	0.4512911	0	1	0	0	1	0
Child food marketing policies	582	0.2920962	0.4551175	0	1	0	0	1	0
Milk code	582	0.4201031	0.3990841	0	1	0.5	0	1	0
Tobacco tax	582	0.2912371	0.3492931	0	1	0	0	0.5	0
Smoke free areas	582	0.4819588	0.3859864	0	1	0.5	0	1	0
Graphic warnings	582	0.5515464	0.3923836	0	1	0.5	0	1	0
Tobacco advertising	582	0.4656357	0.3378394	0	1	0.5	0	0.5	0
Alcohol sales restrictions	582	0.5128866	0.2628893	0	1	0.5	0.5	0.5	0
Alcohol advertising	582	0.3505155	0.4117359	0	1	0	0	0.5	0
Alcohol tax	582	0.4656357	0.3466404	0	1	0.5	0	0.5	0
Corporate Financial Influence	516	2.571654	1.208853	0	5.25087	2.673719	1.669227	3.51679	11.34
GDP per capita (ln)	558	9.10693	1.235163	4.88161	11.54334	9.24928	8.125971	10.1029	4.12
Population aged 65+ (%) (ln)	549	2.045059	0.6365056	0.6592639	3.367367	1.944436	1.484336	2.677857	5.67
Urban population (%) (ln)	582	3.97274	0.4748488	2.491386	4.60517	4.067434	3.706523	4.349206	0
Multiplicative Polyarchy Index	516	0.3522248	0.2963652	0	0.87	0.321	0.047	0.6225	11.34
Ethno-linguistic fractionalization (ln)	582	0.1531942	0.1738242	0	0.6083714	0.0682968	0.0137996	0.265664	0
Proportion of population Muslim in 2000 (ln)	567	0.21718	0.3125585	0	0.8813736	0.022998	0	0.3900353	2.58
Small island developing states	582	0.2061856	0.4049133	0	1	0	0	0	0
British legal origin	582	0.3453608	0.4758948	0	1	0	0	1	0
French legal origin	582	0.4175258	0.4935753	0	1	0	0	1	0
Socialist legal origin	582	0.185567	0.3890913	0	1	0	0	0	0
German legal origin	582	0.0257732	0.1585943	0	1	0	0	0	0
Scandinavian legal origin	582	0.0257732	0.1585943	0	1	0	0	0	0
Africa	582	0.2783505	0.4485724	0	1	0	0	1	0
Asia	582	0.242268	0.4288242	0	1	0	0	0	0
Europe	582	0.2164948	0.4122096	0	1	0	0	0	0
North America	582	0.1185567	0.3235442	0	1	0	0	0	0
South America	582	0.0618557	0.2411004	0	1	0	0	0	0
Oceania	582	0.0824742	0.2753225	0	1	0	0	0	0
Alcohol consumption per capita (ages 15+) in 2015 (ln)	561	2.176056	0.945489	0.003	3.603518	2.465129	1.504548	2.954499	3.61
Smoking prevalence (ages 15+) in 2015 (ln)	582	0.1987873	0.0911236	0.0426411	0.4758496	0.1969312	0.122153	0.2654631	0
Hypertension prevalence for adults in 2015 (ln)	573	3.17404	0.1989088	2.396339	3.513105	3.196561	3.043805	3.340668	1.55
Prevalence of BMI >30 for adults in 2015 (ln)	582	3.400419	0.8323609	0	4.799159	3.691995	2.836656	3.920385	0
Prevalence of BMI >2 sd above median for children in 2015 (ln)	582	2.539439	0.8456108	0	4.177695	2.757673	1.909274	3.154557	0
Corporate Permeation Index in 2015	438	0.0005223	2.048144	-5.904981	6.155242	0.1585068	-1.463253	1.436686	24.74
Political Corruption Index	516	0.5068488	0.3028637	0.01	0.974	0.563	0.2075	0.778	11.34

Note: Tobacco mass media policies not included in Commercial policies and Tobacco policies because not covered by 2015 NCD Progress Report.

4. Regression methods

4.1 Model specification

Our regression analyses are based on a panel of 172 countries for the years 2015, 2017, and 2019 (the 2020 Monitoring report refers to data collected for 2019). For country i and year t, we estimate regression equations of the following general form:

$$y_{it} = \beta_0 + \beta_1 CPII_{it} + \beta_2 Z_i + \delta_2 T_t \ldots + \delta_T T_t + u_{it}$$

Our dependent variable (*y*) is policy implementation. Corporate Financial Influence Index (*CFII*) is our independent variable of interest. The remaining covariates (*Z*) are included so as to control for potential confounding (GDP per capita, urbanization, population aged 65+, democracy level, Muslim population, ethno-linguistic fractionalization, Small Island

developing states, legal origin, and continent). See below for an explanation of the rationale for including these control variables. See section 3 for a complete description of all variables.

We report results both with and without our set of control variables. Five of the control variables - GDP per capita, urban population, population aged 65+, Muslim population, and fractionalization - were log transformed to address skewness. Year dummies (*T*) were included in the regression to address the possibility of a spurious relationship between policy implementation and our independent variable of interest. We report robust standard errors.

We use a random effects GLS specification which captures both between country effects and within country effects. Specifically, a matrix-weighted average of the between and within results. The time frame under study is potentially too short to focus solely on the within-country relationship between implementation and CFII. We do, however, include a number of time-invariant control variables ('fixed factors') to capture country-specific characteristics (continent, legal origin, fractionalization, Small Island developing states, Muslim population). Reassuringly, the robust Hausman test indicated that the random effects specification is appropriate for this regression analysis (see replication code for the results of that test).

For all regression analyses we applied listwise deletion in those cases where data were missing. This meant our baseline analyses encompassed 172 states. For the sake of robustness, we also checked whether our results held when multiple imputation was used to estimate missing data points. This enabled us to include all 194 WHO member states in the regression analyses (see section 6).

4.2 Prediction-based Bland-Altman plot

We use a Bland-Altman plot to compare actual and predicted implementation scores. The predicted scores are based on the baseline regression model described above. Comparing predicted with actual scores allows us to examine whether a country is over or under-performing given its pre-existing characteristics (economic development, demography, political and legal institutions, etc.). We set the margin of agreement at 95%.

4.4 Rationale for control variables

As noted above, we include a number of time-varying and time-invariant covariates in the regression to address confounding.

Variable	**Rationale**
GDP per capita	Aggregate income captures economic development, which may separately effect CFII and implementation.
Urbanization	Urbanization captures economic development, which may separately effect CFII and implementation.
Population aged 65+	Stage in the epidemiological transition may affect policy implementation. Countries with older populations may also have lower CFII scores.
Multiplicative Polyarchy Index	CFII may be acting as a proxy for the extent to which there are competitive multiparty elections.[35]
Muslim population in 2000	Countries with large Muslim populations may be more likely to implement policies designed to reduce alcohol consumption and to have lower CFII scores.
Ethno-linguistic fractionalization in 2005	Cultural heterogeneity may affect the level of solidarity and, thereby, CFII and the implementation of policy.[36]
Small Island Developing States	Small island states face unique challenges when it comes to implementing NCD policies (transport costs, reliance on food imports, and vulnerability to natural disasters).[37,38] At the same time they have higher CFII scores
Legal origin	CFII and implementation may be due to the extent to which the entrenched legal system in each country favours commercial activity.[30]
Continent	Captures time-invariant factors specific to each region (e.g. climate and colonial history), which may separately effect CFII and implementation.

4.5 Statistical software and replication

The regression results were produced using Stata version 14.2 and the command –xtreg, re–.

Replication data and code for all results are available at: https://github.com/drlukeallen/CDOH-policy-implementation

5. Regression results

5.1 Commercial policies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Commercial policies	**Commercial policies**	**Food policies**	**Food policies**	**Tobacco policies**	**Tobacco policies**	**Alcohol policies**	**Alcohol policies**
Corporate Financial Influence	-0.430***	-0.220***	-0.436***	-0.193**	-0.277***	-0.0771	-0.0819	-0.180*
	(0.0584)	(0.0658)	(0.0610)	(0.0725)	(0.0551)	(0.0695)	(0.0656)	(0.0822)
GDP per capita (ln)		0.240*		0.244***		0.229*		-0.0408
		(0.0998)		(0.0722)		(0.117)		(0.147)
Urban population (%) (ln)		-0.0501		0.112		-0.167		-0.104
		(0.0759)		(0.0573)		(0.0950)		(0.0997)
Population aged 65+ (%) (ln)		0.173		-0.113		0.336**		0.273
		(0.109)		(0.0978)		(0.118)		(0.157)
Multiplicative Polyarchy Index		0.0355		0.104		-0.0327		-0.0643
		(0.0634)		(0.0663)		(0.0718)		(0.0852)
Small island developing states		-0.158**		-0.108		-0.137		-0.0887
		(0.0589)		(0.0552)		(0.0791)		(0.0821)
Proportion of population Muslim in 2000 (ln)		0.251***		0.114*		0.0941		0.389***
		(0.0597)		(0.0527)		(0.0795)		(0.0864)
Ethno-linguistic fractionalization (ln)		0.0304		0.0157		0.0521		-0.00501
		(0.0507)		(0.0475)		(0.0653)		(0.0642)
British legal origin		0.108		0.0170		0.359***		-0.201
		(0.0810)		(0.115)		(0.0979)		(0.148)
German legal origin		-0.133**		-0.0532		-0.0557		-0.217***
		(0.0424)		(0.0637)		(0.0350)		(0.0581)
Socialist legal origin		0.00701		-0.0502		0.244***		-0.240*
		(0.0647)		(0.0914)		(0.0668)		(0.118)
French legal origin		0.0971		-0.0667		0.531***		-0.322*
		(0.0872)		(0.118)		(0.0946)		(0.147)
Scandinavian legal origin		0		0		0		0
		(.)		(.)		(.)		(.)
Africa		-0.240**		-0.196**		-0.464***		0.255
		(0.0841)		(0.0721)		(0.107)		(0.144)
Asia		0.0409		0.115		-0.281**		0.289*
		(0.0766)		(0.0823)		(0.0964)		(0.138)
Europe		0.0753		0.176		-0.220*		0.214
		(0.0889)		(0.102)		(0.104)		(0.149)
North America		-0.0718		-0.0168		-0.294***		0.208*
		(0.0680)		(0.0564)		(0.0870)		(0.105)
South America		0.0958		0.0935		-0.0508		0.180*
		(0.0577)		(0.0633)		(0.0711)		(0.0797)
Oceania		0		0		0		0
		(.)		(.)		(.)		(.)
year== 2015.0000	-0.306***	-0.292***	-0.213***	-0.224***	-0.495***	-0.470***	0.141	0.170*
	(0.0475)	(0.0483)	(0.0595)	(0.0599)	(0.0393)	(0.0412)	(0.0734)	(0.0762)
year== 2017.0000	-0.00349	0.00623	0.110*	0.107*	-0.134***	-0.118***	-0.0165	-0.00255
	(0.0406)	(0.0407)	(0.0517)	(0.0519)	(0.0321)	(0.0321)	(0.0668)	(0.0679)
year== 2019.0000	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Constant	0.226***	0.189***	0.145*	0.134**	0.293***	0.276***	0.0154	-0.0526
	(0.0666)	(0.0488)	(0.0642)	(0.0476)	(0.0703)	(0.0573)	(0.0790)	(0.0746)

Countries	172	172	172	172	172	172	172	172
R-squared (overall)	0.226	0.546	0.216	0.488	0.164	0.412	0.00897	0.208

Notes: Coefficients produced using random effects regressions. Standard errors in parentheses. All variables have been standardized. Reference category for legal origin and continent is Scandinavian and Oceania. Robust standard errors in parentheses. Commercial policies and Tobacco policies do not include tobacco mass media policies
* p<0.05; **p<0.01; ***p<0.001

5.2 Individual policies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	Salt policies	**Salt policies**	**Fat policies**	**Fat policies**	**Child food marketing policies**	**Child food marketing policies**	**Milk code**	**Milk code**	**Tobacco tax**	**Tobacco tax**	**Tobacco advertising**	**Tobacco advertising**	**Smoke free areas**	**Smoke free areas**	**Alcohol sales restrictions**	**Alcohol sales restrictions**	**Alcohol advertising**	**Alcohol advertising**	**Alcohol tax**	**Alcohol tax**
Corporate Financial Influence	-0.363***	-0.113	-0.392***	-0.124	-0.426***	-0.223**	-0.0358	-0.0380	-0.173***	-0.0589**	0.00688	0.00218	-0.0542*	-0.0395	0.00249	-0.0263	-0.0562*	-0.0667	-0.00643	-0.0426
	(0.0622)	(0.0699)	(0.0624)	(0.0756)	(0.0590)	(0.0760)	(0.0211)	(0.0353)	(0.0171)	(0.0205)	(0.0198)	(0.0268)	(0.0249)	(0.0310)	(0.0160)	(0.0219)	(0.0269)	(0.0347)	(0.0205)	(0.0280)
GDP per capita (ln)		0.289***		0.238**		0.165*		0.00986		0.0613*		0.0298		0.0433		0.0253		-0.00393		-0.0559
		(0.0783)		(0.0824)		(0.0796)		(0.0455)		(0.0247)		(0.0470)		(0.0462)		(0.0382)		(0.0459)		(0.0437)
Urban population (%) (ln)		0.122*		0.125*		0.0901		-0.00978		-0.0345		-0.00507		-0.0525		-0.0480		-0.0371		0.00646
		(0.0600)		(0.0625)		(0.0629)		(0.0362)		(0.0212)		(0.0389)		(0.0385)		(0.0256)		(0.0335)		(0.0322)
Population aged 65+ (%) (ln)		0.0845		-0.0519		-0.0227		-0.145**		0.197***		-0.0382		0.0450		0.0567		0.124*		0.0393
		(0.102)		(0.107)		(0.110)		(0.0490)		(0.0335)		(0.0474)		(0.0513)		(0.0419)		(0.0538)		(0.0502)
Multiplicative Polyarchy Index		0.0465		0.121		0.0762		0.0295		-0.0554*		0.0108		0.00554		-0.0197		-0.0143		-0.0206
		(0.0738)		(0.0824)		(0.0757)		(0.0349)		(0.0240)		(0.0270)		(0.0323)		(0.0237)		(0.0361)		(0.0325)
Small island developing states		-0.0910		-0.102		-0.0265		-0.0419		-0.0154		-0.0240		-0.0490		-0.0386		-0.0103		-0.0198
		(0.0609)		(0.0627)		(0.0542)		(0.0359)		(0.0157)		(0.0332)		(0.0329)		(0.0201)		(0.0305)		(0.0308)
Proportion of population Muslim in 2000 (ln)		0.132*		0.127*		0.0863		-0.00550		0.0238		0.0697*		0.00543		0.0495*		0.184***		0.0663*
		(0.0563)		(0.0612)		(0.0534)		(0.0286)		(0.0194)		(0.0285)		(0.0329)		(0.0216)		(0.0298)		(0.0274)
Ethno-linguistic fractionalization (ln)		0.0401		0.0606		0.0548		-0.0496*		-0.0246		0.0422		0.00343		-0.0122		-0.00129		0.0107
		(0.0545)		(0.0538)		(0.0503)		(0.0223)		(0.0159)		(0.0267)		(0.0301)		(0.0174)		(0.0217)		(0.0217)
British legal origin		0.0875		-0.0474		0.00426		0.00302		0.160***		0.0224		0.189*		0.0487		-0.156*		-0.0486
		(0.187)		(0.124)		(0.153)		(0.0458)		(0.0424)		(0.0288)		(0.0830)		(0.0340)		(0.0760)		(0.0462)
German legal origin		-0.0553		-0.0147		-0.0485		-0.0167		0.0234		-0.0323		-0.0211		-0.0382**		-0.0817**		-0.0480**
		(0.0754)		(0.0642)		(0.0825)		(0.0219)		(0.0166)		(0.0166)		(0.0244)		(0.0133)		(0.0300)		(0.0176)
Socialist legal origin		-0.0175		-0.103		-0.0442		0.0108		0.0606		0.0235		0.153*		-0.0243		-0.0717		-0.0921*
		(0.149)		(0.101)		(0.123)		(0.0350)		(0.0343)		(0.0190)		(0.0631)		(0.0246)		(0.0606)		(0.0364)
French legal origin		-0.00540		-0.110		-0.0841		0.00558		0.166***		0.0689**		0.249**		-0.00109		-0.155*		-0.0934*
		(0.194)		(0.127)		(0.158)		(0.0434)		(0.0437)		(0.0246)		(0.0827)		(0.0304)		(0.0774)		(0.0458)
Scandinavian legal origin		0		0		0		0		0		0		0		0		0		0
		(.)		(.)		(.)		(.)		(.)		(.)		(.)		(.)		(.)		(.)

Africa		-0.102		-0.102		-0.164		-0.0870		-0.00267		-0.111*		-0.161*		0.0935*		0.0583		0.0447
		(0.0899)		(0.0858)		(0.0935)		(0.0743)		(0.0381)		(0.0512)		(0.0672)		(0.0395)		(0.0406)		(0.0647)
Asia		0.0779		0.0648		0.0172		0.0774		-0.00291		-0.0851		-0.0734		0.0833*		0.0898*		0.0492
		(0.0978)		(0.0975)		(0.101)		(0.0759)		(0.0363)		(0.0480)		(0.0604)		(0.0373)		(0.0429)		(0.0628)
Europe		0.0515		0.163		0.0936		0.0842		0.0600		-0.00758		-0.112		0.0496		0.0561		0.0577
		(0.113)		(0.121)		(0.127)		(0.0743)		(0.0377)		(0.0483)		(0.0644)		(0.0382)		(0.0466)		(0.0681)
North America		-0.0415		-0.0132		-0.0973		0.0460		-0.0558		-0.131***		-0.00915		0.0799**		0.0144		0.0652
		(0.0824)		(0.0829)		(0.0786)		(0.0579)		(0.0305)		(0.0381)		(0.0523)		(0.0290)		(0.0250)		(0.0494)
South America		0.0783		0.0459		0.0185		0.0566		-0.000449		-0.0279		0.0192		0.0471*		0.0451		0.0461
		(0.0698)		(0.0753)		(0.0733)		(0.0421)		(0.0251)		(0.0350)		(0.0370)		(0.0210)		(0.0231)		(0.0381)
Oceania		0		0		0		0		0		0		0		0		0		0
		(.)		(.)		(.)		(.)		(.)		(.)		(.)		(.)		(.)		(.)
year== 2015.0000	0.0324	0.0468	-0.314***	-0.320***	-0.187*	-0.191*	-0.0614	-0.0772	-0.177***	-0.161***	-0.0848***	-0.0872***	-0.0659***	-0.0630**	0.00564	0.0128	0.0766*	0.0882**	0.0266	0.0309
	(0.0688)	(0.0683)	(0.0704)	(0.0702)	(0.0741)	(0.0749)	(0.0411)	(0.0420)	(0.0208)	(0.0208)	(0.0168)	(0.0175)	(0.0180)	(0.0197)	(0.0198)	(0.0210)	(0.0308)	(0.0316)	(0.0313)	(0.0324)
year== 2017.0000	0.132*	0.142*	0.0178	0.0176	0.127	0.128	0.0185	0.0104	-0.0182	-0.00892	-0.0380***	-0.0392***	-0.0275*	-0.0256	-0.0233	-0.0197	-0.0187	-0.0128	0.0293	0.0309
	(0.0658)	(0.0657)	(0.0686)	(0.0692)	(0.0660)	(0.0664)	(0.0100)	(0.0107)	(0.0165)	(0.0165)	(0.0109)	(0.0112)	(0.0128)	(0.0136)	(0.0174)	(0.0176)	(0.0276)	(0.0283)	(0.0294)	(0.0299)
year== 2019.0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Constant	0.0156	-0.00903	0.176*	0.154**	0.0850	0.0840	0.481***	0.488***	0.363***	0.351***	0.529***	0.520***	0.527***	0.534***	0.520***	0.509***	0.362***	0.327***	0.459***	0.452***
	(0.0661)	(0.0540)	(0.0689)	(0.0548)	(0.0698)	(0.0613)	(0.0254)	(0.0282)	(0.0250)	(0.0200)	(0.0259)	(0.0241)	(0.0293)	(0.0277)	(0.0193)	(0.0195)	(0.0340)	(0.0295)	(0.0289)	(0.0301)
Countries	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
R-squared (overall)	0.131	0.377	0.174	0.382	0.195	0.333	0.0161	0.142	0.315	0.548	0.0103	0.213	0.0230	0.267	0.00311	0.152	0.0245	0.299	0.00169	0.0678

Notes: Coefficients produced using random effects regressions. Standard errors in parentheses. All variables have been standardized. Reference category for legal origin and continent is Scandinavian and Oceania. Robust standard errors in parentheses. Tobacco mass media policies not included as not included in WHO 2015 NCD Progress Report * p<0.05; **p<0.01; ***p<0.001

6. Sensitivity and robustness checks

6.1 Corporate Permeation Index, alternative CFII, and further controls

In the following table we present three sets of results. Firstly, we examine whether our baseline results hold when we use the Corporate Permeation Index constructed by Lima and Galea[39] (column 1). Secondly, we examine whether our results hold when registration of lobbying activities is included in the Corporate Financial Influence Index and disclosure by politicians is excluded from that index (columns 3 and 4; column 2 presents the baseline result for comparison). Finally, we address the possibility that our index is acting as a proxy for state capacity by including controls for political corruption,[18] tax revenue,[40] and war deaths[24] (columns 5-7).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Commercial policies	**Commercial policies**	**Commercial policies**	**Commercial policies**	**Commercial policies**	**Commercial policies**	**Commercial policies**
Corporate Permeation Index in 2015	-0.156*						
	(0.0670)						
Corporate Financial Influence		-0.220***			-0.222***	-0.199**	-0.209**
		(0.0658)			(0.0654)	(0.0635)	(0.0662)
Corporate Financial Influence (w/ lobbying)			-0.215**				
			(0.0690)				
Corporate Financial Influence (w/o disclosure)				-0.181**			
				(0.0664)			
Political Corruption Index					0.0212		
					(0.0663)		
Tax revenue (% GDP) (ln)						0.0156	
						(0.0436)	
Mean war mortality (ln)							-0.0635**
							(0.0233)
GDP per capita (ln)	0.242*	0.240*	0.236*	0.233*	0.248*	0.245*	0.220*
	(0.123)	(0.0998)	(0.100)	(0.101)	(0.107)	(0.1000)	(0.102)
Urban population (%) (ln)	-0.00787	-0.0501	-0.0516	-0.0468	-0.0496	-0.0598	-0.0465
	(0.0757)	(0.0759)	(0.0761)	(0.0762)	(0.0758)	(0.0648)	(0.0753)
Population aged 65+ (%) (ln)	0.239*	0.173	0.179	0.191	0.174	0.203	0.185
	(0.116)	(0.109)	(0.110)	(0.111)	(0.109)	(0.109)	(0.110)
Multiplicative Polyarchy Index	0.0636	0.0355	0.0290	0.0500	0.0455	0.0211	0.0358
	(0.0696)	(0.0634)	(0.0648)	(0.0643)	(0.0715)	(0.0629)	(0.0634)
Small island developing states	-0.172*	-0.158**	-0.162**	-0.165**	-0.155**	-0.148**	-0.164**
	(0.0799)	(0.0589)	(0.0593)	(0.0597)	(0.0591)	(0.0541)	(0.0592)
Proportion of population Muslim in 2000 (ln)	0.146*	0.251***	0.252***	0.246***	0.250***	0.243***	0.263***
	(0.0634)	(0.0597)	(0.0600)	(0.0604)	(0.0593)	(0.0567)	(0.0589)
Ethno-linguistic fractionalization (ln)	0.0461	0.0304	0.0330	0.0312	0.0289	0.0425	0.0345
	(0.0593)	(0.0507)	(0.0509)	(0.0512)	(0.0506)	(0.0479)	(0.0505)
British legal origin	0.183*	0.108	0.109	0.139	0.108	0.0949	0.108
	(0.0864)	(0.0810)	(0.0821)	(0.0864)	(0.0811)	(0.0823)	(0.0815)
German legal origin	-0.155***	-0.133**	-0.132**	-0.128**	-0.134**	-0.135**	-0.134**
	(0.0442)	(0.0424)	(0.0419)	(0.0419)	(0.0426)	(0.0445)	(0.0425)
Socialist legal origin	0.0949	0.00701	0.0134	0.0258	0.00375	0.00263	-0.00391
	(0.0804)	(0.0647)	(0.0657)	(0.0683)	(0.0656)	(0.0659)	(0.0655)
French legal origin	0.202*	0.0971	0.105	0.123	0.0938	0.0938	0.105
	(0.0903)	(0.0872)	(0.0883)	(0.0904)	(0.0879)	(0.0890)	(0.0876)
Scandinavian legal origin	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Africa	-0.203	-0.240**	-0.248**	-0.254**	-0.238**	-0.209**	-0.254**

	(0.108)	(0.0841)	(0.0837)	(0.0846)	(0.0850)	(0.0795)	(0.0848)
Asia	0.0296	0.0409	0.0323	0.0310	0.0418	0.0699	0.0459
	(0.0900)	(0.0766)	(0.0768)	(0.0776)	(0.0764)	(0.0756)	(0.0771)
Europe	0.0619	0.0753	0.0708	0.0703	0.0741	0.0709	0.0794
	(0.0588)	(0.0889)	(0.0895)	(0.0902)	(0.0895)	(0.0891)	(0.0890)
North America	-0.0969	-0.0718	-0.0743	-0.0856	-0.0744	-0.0727	-0.0760
	(0.0897)	(0.0680)	(0.0683)	(0.0679)	(0.0697)	(0.0680)	(0.0684)
South America	0.0562	0.0958	0.0922	0.0870	0.0939	0.0963	0.0900
	(0.0568)	(0.0577)	(0.0583)	(0.0591)	(0.0577)	(0.0584)	(0.0579)
Oceania	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)
year== 2015.0000	-0.335***	-0.292***	-0.292***	-0.295***	-0.293***	-0.284***	-0.295***
	(0.0528)	(0.0483)	(0.0483)	(0.0483)	(0.0486)	(0.0506)	(0.0485)
year== 2017.0000	-0.0303	0.00623	0.00655	0.00475	0.00586	-0.00905	0.00532
	(0.0440)	(0.0407)	(0.0407)	(0.0408)	(0.0407)	(0.0440)	(0.0406)
year== 2019.0000	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Constant	0.228***	0.189***	0.188***	0.191***	0.190***	0.216***	0.190***
	(0.0603)	(0.0488)	(0.0491)	(0.0494)	(0.0498)	(0.0489)	(0.0484)
Countries	145	172	172	172	172	167	172
R-squared (overall)	0.546	0.546	0.544	0.540	0.546	0.551	0.551

Notes: Coefficients produced using random effects regressions. Standard errors in parentheses. All variables have been standardized. Reference category for legal origin and continent is Scandinavian and Oceania. Robust standard errors in parentheses. Commercial policies does not include tobacco mass media policies. Sources for additional variables: The Political Corruption Index is taken from V-Dem dataset (version 11.1); Tax revenue is taken from Heritage Foundation annual reports; Mean war mortality is taken from GBD Covariates for 2019.

* p<0.05; **p<0.01; ***p<0.001

6.2 Risk factor analysis

For our analysis of the relationship between specific commercial policies and various risk factors we use the same regression equation as described above (section 4), but include each risk factor as an additional independent variable of interest. As follows:

$$y_{it} = \beta_0 + \beta_1 Risk\ factor_{it} + \beta_2 CPII_{it} + \beta_2 Z_i + \delta_2 T_t \ldots + \delta_T T_t + u_{it}$$

The dependent variables are tobacco policies, alcohol policies, salt policies, fat policies, and child food marketing policies and corresponding risk factors are smoking prevalence, alcohol consumption, hypertension, adult obesity, and childhood obesity.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Tobacco policies	**Tobacco policies**	**Fat policies**	**Fat policies**	**Child food marketing policies**	**Child food marketing policies**	**Salt policies**	**Salt policies**	**Alcohol policies**	**Alcohol policies**
Smoking prevalence (ages 15+) in 2015 (ln)	0.351***	0.0885								
	(0.0666)	(0.0798)								
Prevalence of BMI >30 for adults in 2015 (ln)			0.240***	0.171*						
			(0.0540)	(0.0687)						
Prevalence of BMI >2 sd above median for children in 2015 (ln)					0.213***	-0.0380				
					(0.0464)	(0.0903)				
Hypertension prevalence for adults in 2015 (ln)							-0.349***	-0.189*		
							(0.0493)	(0.0732)		
Alcohol consumption per capita (ages 15+) in 2015 (ln)									-0.209**	-0.275*
									(0.0762)	(0.113)
Corporate Financial Influence		-0.0790		-0.127		-0.220**		-0.110		-0.183*
		(0.0700)		(0.0749)		(0.0756)		(0.0658)		(0.0794)
GDP per capita (ln)		0.224		0.206*		0.177*		0.267**		0.0924
		(0.115)		(0.0801)		(0.0825)		(0.0824)		(0.152)
Urban population (%) (ln)		-0.168		0.0568		0.101		0.0547		-0.160
		(0.0948)		(0.0689)		(0.0695)		(0.0641)		(0.0919)
Population aged 65+ (%) (ln)		0.307**		-0.0198		-0.0175		0.0269		0.272
		(0.115)		(0.106)		(0.112)		(0.105)		(0.158)
Multiplicative Polyarchy Index		-0.0303		0.109		0.0725		0.0589		-0.0529
		(0.0718)		(0.0828)		(0.0765)		(0.0731)		(0.0870)
Small island developing states		-0.144		-0.107		-0.0234		-0.0766		-0.107
		(0.0775)		(0.0646)		(0.0545)		(0.0606)		(0.0842)
Proportion of population Muslim in 2000 (ln)		0.0918		0.0987		0.0896		0.166**		0.252*
		(0.0794)		(0.0579)		(0.0538)		(0.0559)		(0.0999)
Ethno-linguistic fractionalization (ln)		0.0580		0.0722		0.0514		0.0456		0.000196
		(0.0650)		(0.0527)		(0.0512)		(0.0556)		(0.0657)
British legal origin		0.316**		-0.0692		0.0102		0.128		-0.186
		(0.103)		(0.126)		(0.154)		(0.185)		(0.143)
German legal origin		-0.0682		-0.00509		-0.0501		-0.0652		-0.203***
		(0.0358)		(0.0589)		(0.0832)		(0.0696)		(0.0580)
Socialist legal origin		0.195*		-0.137		-0.0423		0.0800		-0.160
		(0.0773)		(0.102)		(0.124)		(0.153)		(0.121)
French legal origin		0.482***		-0.137		-0.0769		0.0390		-0.345*

		(0.102)		(0.128)		(0.159)		(0.194)		(0.142)
Scandinavian legal origin		0		0		0		0		0
		(.)		(.)		(.)		(.)		(.)
Africa		-0.422***		0.0139		-0.186		0.0100		0.384**
		(0.121)		(0.101)		(0.106)		(0.0961)		(0.144)
Asia		-0.266**		0.174		0.00413		0.118		0.304*
		(0.101)		(0.103)		(0.101)		(0.0972)		(0.137)
Europe		-0.215*		0.215		0.0820		0.178		0.280
		(0.106)		(0.125)		(0.130)		(0.117)		(0.150)
North America		-0.253**		0.0176		-0.100		-0.0165		0.258*
		(0.0952)		(0.0863)		(0.0787)		(0.0815)		(0.106)
South America		-0.0313		0.0755		0.0155		0.106		0.243**
		(0.0735)		(0.0783)		(0.0735)		(0.0734)		(0.0804)
Oceania		0		0		0		0		0
		(.)		(.)		(.)		(.)		(.)
year== 2015.0000	-0.494***	-0.473***	-0.314***	-0.322***	-0.204**	-0.189*	0.0243	0.0350	0.135	0.183*
	(0.0421)	(0.0409)	(0.0622)	(0.0706)	(0.0686)	(0.0748)	(0.0651)	(0.0691)	(0.0726)	(0.0764)
year== 2017.0000	-0.151***	-0.120***	0.00571	0.0164	0.0906	0.129	0.0970	0.137*	-0.0416	0.000531
	(0.0341)	(0.0321)	(0.0621)	(0.0693)	(0.0620)	(0.0664)	(0.0605)	(0.0662)	(0.0638)	(0.0686)
year== 2019.0000	0	0	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Constant	0.215**	0.279***	0.103	0.153**	0.0378	0.0824	-0.0325	-0.00775	0.00326	-0.0524
	(0.0681)	(0.0576)	(0.0691)	(0.0541)	(0.0711)	(0.0613)	(0.0620)	(0.0541)	(0.0727)	(0.0748)
Countries	194	172	194	172	194	172	191	171	187	171
R-squared (overall)	0.166	0.415	0.0799	0.390	0.0607	0.333	0.123	0.387	0.0505	0.238

Notes: Coefficients produced using random effects regressions. Standard errors in parentheses. All variables have been standardized. Reference category for legal origin and continent is Scandinavian and Oceania. Robust standard errors in parentheses. Commercial policies and Tobacco policies do not include tobacco mass media policies * p<0.05; **p<0.01; ***p<0.001

6.3 Multiple imputation

As we can see from the summary statistics table above a number of variables have a non-trivial proportion of missing data points. This may lead to bias in our regression results if there is a systematic difference between the observed and non-observed data. In addition, we have assigned a score of zero for those implementation policies that are not reported on the basis that if a country is unable to determine whether a policy has been implemented, then it is likely that the policy was not implemented. However, it remains possible that assigning a score of zero in such cases biases against under-reporting countries.

In order to address both these potential sources of bias we used multiple imputation to estimate the missing data points for all variables, including the individual NCD policies that were not reported. Specifically, we used a multivariate normal model to produce 30 "complete" data sets. All variables used in the regression analyses were included in the imputation model. This procedure enabled us to generate a balanced panel for all WHO member states (194 states). Total commercial implementation was calculated by taking the sum of policy scores for each imputed data set. Our regression models were then separately run for each imputed data set and the results combined using Rubin rules. Reassuringly, the results are consistent with our baseline regression results. Stata's data augmentation algorithm (command: mi impute mvn) was used to generate the imputed data sets. Stata's mi estimate command was used to perform the regressions and combine the results.

Corporate Financial Influence

	(1)	(2)	(3)	(4)
	Commercial policies	**Food policies**	**Tobacco policies**	**Alcohol policies**
Corporate Financial Influence	-0.167*	-0.185**	-0.0278	-0.111
	(0.0720)	(0.0693)	(0.100)	(0.0930)
GDP per capita (ln)	0.126	0.154*	0.0901	-0.0550
	(0.0945)	(0.0768)	(0.119)	(0.127)
Urban population (%) (ln)	0.0147	0.119*	-0.0459	-0.0826
	(0.0617)	(0.0525)	(0.0825)	(0.0788)
Population aged 65+ (%) (ln)	0.149	-0.0747	0.218	0.272
	(0.111)	(0.105)	(0.128)	(0.158)
Multiplicative Polyarchy Index	0.0609	0.103	0.0146	-0.0407
	(0.0672)	(0.0626)	(0.0905)	(0.0933)
Small island developing states	-0.246***	-0.156**	-0.246**	-0.0938
	(0.0654)	(0.0579)	(0.0890)	(0.0773)
Proportion of population Muslim in 2000 (ln)	0.268***	0.124*	0.0972	0.419***
	(0.0605)	(0.0526)	(0.0847)	(0.0867)
Ethno-linguistic fractionalization (ln)	0.0781	0.0542	0.0998	-0.00430
	(0.0497)	(0.0449)	(0.0654)	(0.0588)
British legal origin	-0.0906	-0.112	0.112	-0.221
	(0.117)	(0.122)	(0.161)	(0.162)
German legal origin	-0.147**	-0.0609	-0.0587	-0.239***
	(0.0539)	(0.0642)	(0.0577)	(0.0625)
Socialist legal origin	-0.0938	-0.0956	0.102	-0.257*
	(0.0853)	(0.0906)	(0.116)	(0.131)
French legal origin	-0.0997	-0.179	0.280	-0.373*
	(0.122)	(0.125)	(0.154)	(0.161)
Scandinavian legal origin	0	0	0	0
	(.)	(.)	(.)	(.)
Africa	-0.293**	-0.132	-0.561***	0.176
	(0.102)	(0.0788)	(0.139)	(0.117)
Asia	0.0416	0.165	-0.277*	0.224
	(0.102)	(0.0922)	(0.132)	(0.129)

Europe	-0.0539	0.172	-0.417**	0.142
	(0.117)	(0.112)	(0.140)	(0.139)
North America	-0.111	0.00552	-0.354***	0.168*
	(0.0655)	(0.0528)	(0.0844)	(0.0759)
South America	0.0805	0.136*	-0.101	0.139*
	(0.0635)	(0.0639)	(0.0829)	(0.0704)
Oceania	0	0	0	0
	(.)	(.)	(.)	(.)
year== 2015.0000	-0.0363	-0.0747**	-0.0830	0.128***
	(0.0283)	(0.0268)	(0.0417)	(0.0346)
year== 2017.0000	-0.0134	0.0346	-0.0665***	-0.00836
	(0.0192)	(0.0231)	(0.0202)	(0.0311)
year== 2019.0000	0	0	0	0
	(.)	(.)	(.)	(.)
Constant	-0.0692	-0.0434	-0.0450	-0.0484
	(0.0452)	(0.0432)	(0.0569)	(0.0527)
Countries	194	194	194	194
R-squared (overall)	0.472	0.461	0.284	0.244

Notes: Coefficients produced using random effects regressions. Standard errors in parentheses. All variables have been standardized. Reference category for legal origin and continent is Scandinavian and Oceania. Robust standard errors in parentheses. Commercial policies and Tobacco policies do not include tobacco mass media policies

* p<0.05; **p<0.01; ***p<0.001

Risk factors

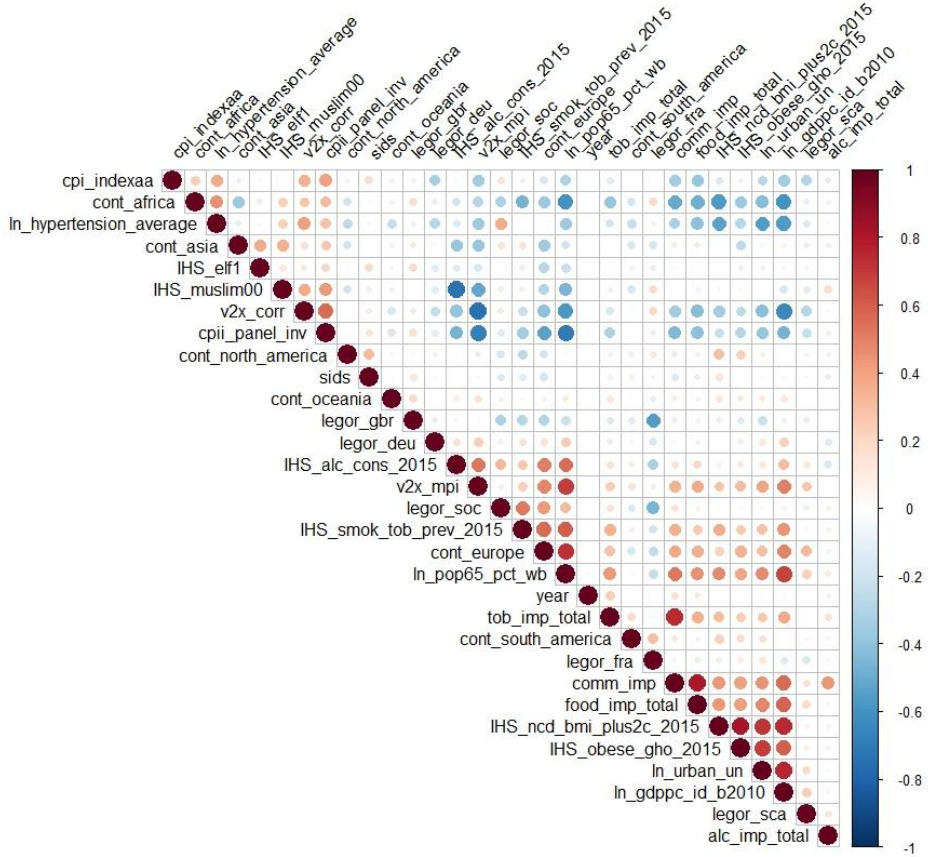
	(1)	(2)	(3)	(4)	(5)
	Tobacco policies	**Fat policies**	**Child food marketing policies**	**Salt policies**	**Alcohol policies**
Smoking prevalence (ages 15+) in 2015 (ln)	0.0677				
	(0.100)				
Prevalence of BMI >30 for adults in 2015 (ln)		0.278***			
		(0.0675)			
Prevalence of BMI >2 sd above median for children in 2015 (ln)			0.149		
			(0.0968)		
Hypertension prevalence for adults in 2015 (ln)				-0.164	
				(0.107)	
Alcohol consumption per capita (ages 15+) in 2015 (ln)					-0.210
					(0.115)
Corporate Financial Influence	0.0356	-0.0489	-0.101	-0.0629	-0.102
	(0.0447)	(0.0641)	(0.0677)	(0.0708)	(0.0590)
GDP per capita (ln)	-0.0820	0.0615	0.229*	0.144	0.112
	(0.100)	(0.0807)	(0.0948)	(0.0901)	(0.132)
Urban population (%) (ln)	0.157	-0.0704	-0.0898	0.174	-0.185
	(0.283)	(0.122)	(0.116)	(0.127)	(0.151)
Population aged 65+ (%) (ln)	0.0336	-0.0340	0.000169	-0.00468	0.0470
	(0.0702)	(0.0711)	(0.102)	(0.124)	(0.144)
Multiplicative Polyarchy Index	-0.0316	0.0370	-0.0482	0.0483	0.109
	(0.0455)	(0.0689)	(0.0512)	(0.0624)	(0.0661)
Small island developing states	-0.243*	-0.173*	-0.0973	-0.0898	-0.119
	(0.105)	(0.0728)	(0.0712)	(0.0500)	(0.0747)
Proportion of population Muslim in 2000 (ln)	0.134	0.0224	-0.0339	0.151*	0.269*
	(0.126)	(0.0335)	(0.0623)	(0.0630)	(0.117)

Ethno-linguistic fractionalization (ln)	0.105	0.0962*	0.0842	0.0491	-0.0328
	(0.0699)	(0.0469)	(0.0470)	(0.0464)	(0.0602)
British legal origin	0.0916	-0.187	-0.183	0.0716	-0.224
	(0.186)	(0.114)	(0.145)	(0.187)	(0.164)
German legal origin	-0.0329	0.00111	-0.0630	-0.0565	-0.224***
	(0.0590)	(0.0421)	(0.0794)	(0.0688)	(0.0618)
Socialist legal origin	0.0338	-0.279**	-0.170	0.0429	-0.138
	(0.155)	(0.0953)	(0.117)	(0.155)	(0.134)
French legal origin	0.181	-0.222*	-0.224	-0.0330	-0.365*
	(0.170)	(0.111)	(0.149)	(0.196)	(0.158)
Scandinavian legal origin	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)
Africa	-0.608***	0.0562	0.0112	-0.0718	0.270
	(0.178)	(0.110)	(0.125)	(0.0851)	(0.149)
Asia	-0.280	0.319**	0.137	0.0682	0.293*
	(0.148)	(0.123)	(0.122)	(0.0980)	(0.149)
Europe	-0.223	0.451**	0.237	0.161	0.266
	(0.162)	(0.140)	(0.154)	(0.129)	(0.142)
North America	-0.273*	0.0869	-0.0101	-0.0618	0.240***
	(0.110)	(0.0671)	(0.0682)	(0.0558)	(0.0716)
South America	-0.0526	0.150	0.0993	0.0886	0.206**
	(0.0975)	(0.0820)	(0.0824)	(0.0655)	(0.0722)
Oceania	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)
year== 2015.0000	-0.0937***	-0.145***	-0.0910**	0.0348	0.117***
	(0.0235)	(0.0290)	(0.0303)	(0.0294)	(0.0334)
year== 2017.0000	-0.0718***	-0.000502	0.0460	0.0519	-0.0146
	(0.0194)	(0.0288)	(0.0277)	(0.0282)	(0.0300)
year== 2019.0000	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)
Constant	-0.0436	-0.0197	-0.0179	-0.00351	-0.0534
	(0.0586)	(0.0455)	(0.0475)	(0.0443)	(0.0514)
Countries	194	194	194	191	194
R-squared (overall)	0.277	0.396	0.323	0.368	0.272

Notes: Coefficients produced using random effects regressions. Standard errors in parentheses. All variables have been standardized. Reference category for legal origin and continent is Scandinavian and Oceania. Robust standard errors in parentheses. Tobacco policies does not include tobacco mass media policies * p<0.05; **p<0.01; ***p<0.001

6.3 Correlation matrices

Variable correlation matrix



Coefficient correlation matrix

	Corporate Financial Influence	GDP per capita (ln)	Population aged 65+ (%) (ln)	Urban population (%) (ln)	Multiplicative Polyarchy Index	Ethno-linguistic fractionalization (ln)	Proportion of population Muslim in 2000 (ln)	Small island developing states	British legal origin	French legal origin	Socialist legal origin	German legal origin	Africa	Asia	Europe	North America	South America	year== 2015.0000	year== 2017.0000	Constant
Corporate Financial Influence	1.000	-0.032	0.395	0.049	0.254	0.123	-0.012	-0.130	-0.192	-0.112	-0.168	-0.153	-0.027	-0.089	-0.157	-0.267	-0.211	-0.093	-0.057	-0.451
GDP per capita (ln)	-0.032	1.000	-0.178	-0.788	-0.030	-0.096	0.308	-0.059	0.030	0.069	0.207	-0.044	0.273	-0.265	-0.087	0.111	0.177	-0.037	0.077	-0.328
Population aged 65+ (%) (ln)	0.395	-0.178	1.000	-0.051	-0.273	0.414	0.212	-0.019	-0.123	-0.080	-0.360	-0.058	0.262	0.114	-0.331	-0.146	-0.147	0.139	-0.012	-0.403
Urban population (%) (ln)	0.049	-0.788	-0.051	1.000	0.099	0.024	-0.407	0.092	0.007	0.037	-0.010	0.082	-0.291	0.170	0.009	-0.234	-0.317	0.023	-0.067	-0.044
Multiplicative Polyarchy Index	0.254	-0.030	-0.273	0.099	1.000	-0.175	0.007	-0.054	0.059	0.078	0.361	0.009	-0.029	0.093	-0.088	0.049	-0.073	0.019	0.077	-0.110
Ethno-linguistic fractionalization (ln)	0.123	-0.096	0.414	0.024	-0.175	1.000	0.166	-0.204	-0.012	0.061	-0.189	0.030	0.105	-0.082	0.003	0.007	-0.072	0.162	-0.010	-0.262
Proportion of population Muslim in 2000 (ln)	-0.012	0.308	0.212	-0.407	0.007	0.166	1.000	-0.078	-0.008	-0.131	-0.010	-0.005	-0.067	-0.301	-0.122	0.177	0.168	0.061	0.047	-0.116
Small island developing states	-0.130	-0.059	-0.019	0.092	-0.054	-0.204	-0.078	1.000	-0.016	-0.007	0.032	-0.001	0.376	0.422	0.330	0.028	0.233	-0.048	0.103	-0.101
British legal origin	-0.192	0.030	-0.123	0.007	0.059	-0.012	-0.008	-0.016	1.000	0.792	0.622	0.258	0.103	0.244	0.530	0.179	0.138	0.111	0.052	-0.249
French legal origin	-0.112	0.069	-0.080	0.037	0.078	0.061	-0.131	-0.007	0.792	1.000	0.590	0.238	-0.039	0.134	0.341	-0.048	-0.176	0.125	0.070	-0.325
Socialist legal origin	-0.168	0.207	-0.360	-0.010	0.361	-0.189	-0.010	0.032	0.622	0.590	1.000	0.272	0.039	-0.052	0.177	0.057	0.033	0.051	0.084	-0.234
German legal origin	-0.153	-0.044	-0.058	0.082	0.009	0.030	-0.005	-0.001	0.258	0.238	0.272	1.000	-0.021	-0.016	0.005	0.009	0.007	0.061	0.028	-0.045
Africa	-0.027	0.273	0.262	-0.291	-0.029	0.105	-0.067	0.376	0.103	-0.039	0.039	-0.021	1.000	0.569	0.280	0.365	0.448	0.099	0.082	-0.392
Asia	-0.089	-0.265	0.114	0.170	0.093	-0.082	-0.301	0.422	0.244	0.134	-0.052	-0.016	0.569	1.000	0.494	0.307	0.339	0.048	-0.009	-0.121
Europe	-0.157	-0.087	-0.331	0.009	-0.088	0.003	-0.122	0.330	0.530	0.341	0.177	0.005	0.280	0.494	1.000	0.388	0.472	0.014	0.028	0.071

North America	-0.267	0.111	-0.146	-0.234	0.049	0.007	0.177	0.028	0.179	-0.048	0.057	0.009	0.365	0.307	0.388	1.000	0.461	0.126	0.065	0.103
South America	-0.211	0.177	-0.147	-0.317	-0.073	-0.072	0.168	0.233	0.138	-0.176	0.033	0.007	0.448	0.339	0.472	0.461	1.000	0.099	0.119	0.113
year== 2015.0000	-0.093	-0.037	0.139	0.023	0.019	0.162	0.061	-0.048	0.111	0.125	0.051	0.061	0.099	0.048	0.014	0.126	0.099	1.000	0.361	-0.153
year== 2017.0000	-0.057	0.077	-0.012	-0.067	0.077	-0.010	0.047	0.103	0.052	0.070	0.084	0.028	0.082	-0.009	0.028	0.065	0.119	0.361	1.000	-0.085
Constant	-0.451	-0.328	-0.403	-0.044	-0.110	-0.262	-0.116	-0.101	-0.249	-0.325	-0.234	-0.045	-0.392	-0.121	0.071	0.103	0.113	-0.153	-0.085	1.000

Note: Coefficients produced using baseline regression

6.3 Adjusting for multiple testing

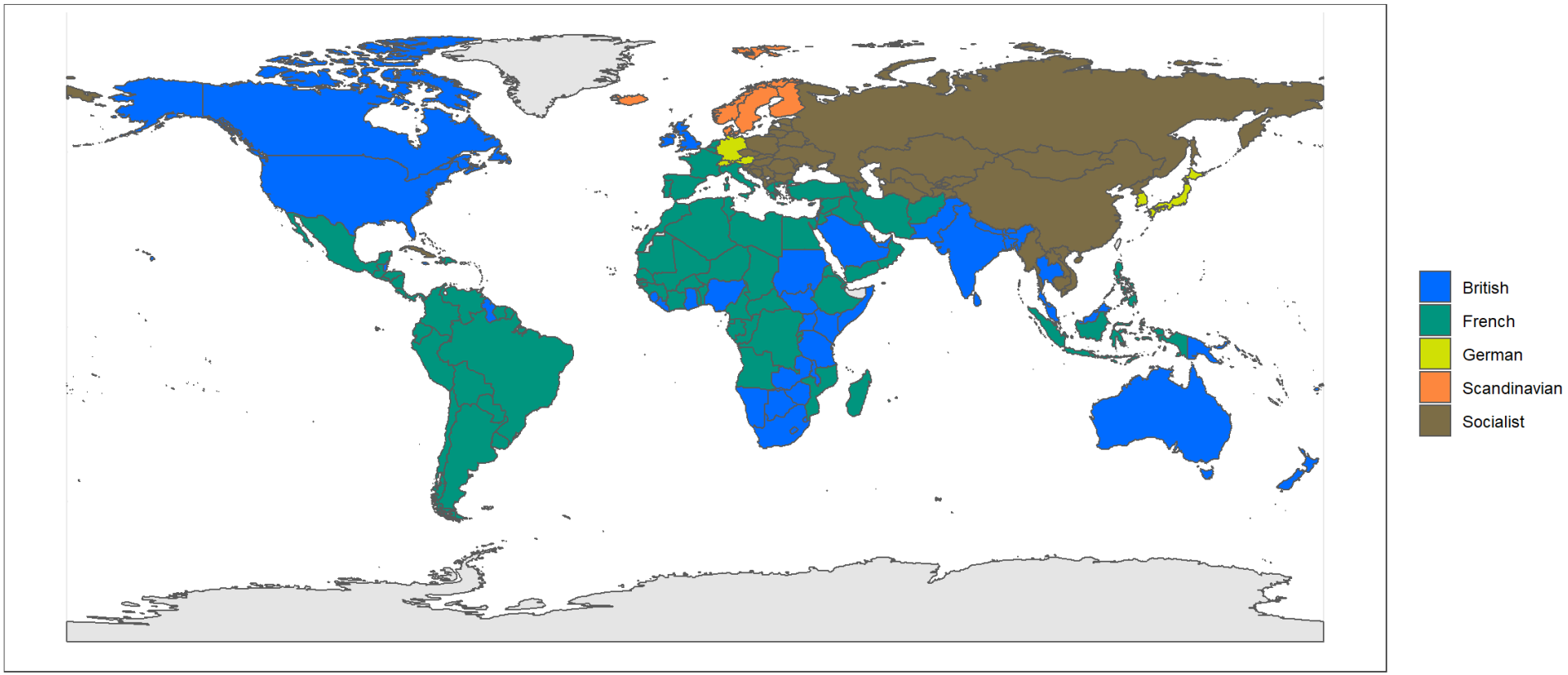
In order to address the fact that we are testing multiple hypotheses (i.e. 4 commercial policy clusters regressed on CFII) we ran three procedures designed to take into account the probability of at least one type I error. The table below presents the adjusted p-values for the baseline model (with controls) using those three procedures - Westfall-Young, Bonferroni-Holm, and Sidak-Holm.

Dependent variable	Estimate	Standard error	Unadjusted p-value	Westfall-Young p-value	Bonferroni-Holm p-value	Sidak-Holm p-value
Commercial Policies	-0.3980609	0.12248405	0.00115446	0	0.00461782	0.00460983
Tobacco policies	-0.06521304	0.06355156	0.30482376	0.25999999	0.30482376	0.30482376
Alcohol policies	-0.11465935	0.05573108	0.03965084	0.08	0.07930169	0.0777295
Food policies	-0.20527158	0.07477883	0.00605018	0.025	0.01815054	0.01804095

7. Other

7.1 Legal origin map

Legal origins (La Porta et al, 2008)



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