Electronic Supplementary Materials to "Colonial Rule and Economic Freedom"

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April 21, 2025

Data and replication files are available at https://www.jpmvbastos.com

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Electronic Supplementary Material

A Data Description

Table A1: Summary statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Economic Freedom of Colonies (avg. 2000-2019)					
Avg. EFW	107	6.442	0.959	3.860	8.751
EFW Area 1	107	6.888	1.024	4.186	8.916
EFW Area 2	107	4.555	1.347	2.258	8.538
EFW Area 3	107	7.645	1.316	3.654	9.711
EFW Area 4	107	6.518	1.372	2.305	9.412
EFW Area 5	107	6.607	1.102	3.779	8.884
Std. Dev. across Areas	107	1.445	0.407	0.517	2.318
Economic Freedom of Colonizers					
Avg. HIEL Colonizer	87	7.463	0.514	6.342	8.416
First HIEL	87	7.668	0.726	5.397	8.454
HIEL at Independence	87	7.555	0.733	4.918	8.554
Geographical Controls					
America*	107	0.262	0.442	0	1
Africa*	107	0.449	0.500	0	1
Asia*	107	0.262	0.442	0	1
Absolute Latitude	90	0.178	0.116	0.011	0.667
Landlocked*	90	0.167	0.375	0	1
Island*	107	0.187	0.392	0	1
% of world's Gold	89	0.753	5.122	0	47
% of world's Iron	89	0.451	2.045	0	16
% of world's Silver	89	0.618	2.583	0	13
% of world's Zinc	89	0.663	2.598	0	15
Coal reserves*	90	0.322	0.470	0	1
Oil Reserves†	89	127.9K	577.3K	0	4,500K
Development Literature Controls					
Ruggedness	107	119.341	118.516	1.600	674
Log Settler Mortality	76	4.716	1.194	2.146	7.986
Pop. Density in 1500	86	0.499	1.558	-3.831	4.610
British Legal Origins*	105	0.400	0.492	0	1
French Legal Origins*	105	0.562	0.499	0	1
Socialist Legal Origins*	105	0.038	0.192	0	1
Scandinavian Legal Origins*	105	0	0	0	0
German Legal Origins*	105	0	0	0	0
Prevalence of European Settlers	59	0.112	0.199	0	0.905

Notes: * denotes dummy variables. Colonies' economic freedom are measured by the *Economic Freedom of the World Index* (EFW), and colonizer's use the *Historical Index of Economic Liberty* (HIEL). Both scale from 0 to 10. *First HIEL* is the HIEL measured at the first year of colonization (if post-1850). † in thousands of barrels per capita.

Table A2: List of Former Colonies with Available EFW Data, Base Sample

Belgium: 1	**Britain (cont.)**	**France (cont.)**
Dem. Rep. of the Congo	Singapore	Tunisia
Britain: 49	Somalia*	Vietnam
Australia	South Africa	**Germany: 4**
Bahamas	Sri Lanka	Burundi*
Bahrain	Sudan	Cameroon*
Bangladesh	Swaziland	Rwanda*
Barbados	Tanzania	Tanzania*
Belize	Trinidad & Tobago*	**Italy: 1**
Bhutan	Uganda	Libia*
Botswana	United Arab Emirates	**Netherlands: 2**
Brunei Darussalam	United States	Indonesia
Cameroon*	Yemen	Suriname
Canada*	Zambia	**Portugal: 6**
Cyprus	Zimbabwe	Angola
Egypt	**France: 27**	Brazil
Fiji	Algeria	Cabo Verde
Gambia	Benin	Guinea-Bissau
Ghana*	Burkina Faso	Mozambique
Guyana	Cambodia	Timor-Leste
India	Central African Republic	**Spain: 17**
Iraq	Chad	Argentina
Israel	Comoros	Bolivia
Jamaica*	Congo	Chile
Jordan	Côte d'Ivoire	Colombia
Kenya	Djibouti	Costa Rica
Kuwait	Gabon	Dominican Republic
Lesotho	Guinea	Ecuador
Malawi	Haiti	El Salvador
Malaysia*	Laos	Guatemala
Mauritius*	Lebanon	Honduras
Myanmar (Burma)	Madagascar	Mexico
Namibia*	Mali	Nicaragua
New Zealand	Mauritania*	Panama
Nigeria	Morocco*	Paraguay
Pakistan	Niger	Peru
Papua New Guinea	Senegal*	Philippines
Qatar	Syria	Uruguay*
Seychelles*	Thailand	Venezuela
Sierra Leone	Togo*	$N = 107$

Notes: Classification following Becker (2019). Becker (2019, p. 4) explains that "contemporary nation states are also regarded to have a colonial legacy if they absorbed a geopolitical unit that previously had a colonial dependency." Excludes 21 countries without EFW data. Countries with multiple colonizers (*) have been classified following La Porta et al. (1999), see Table A4 for details.

Table A3: Summary statistics of main variables by colonizer and continent.

Variable:	*Avg. EFW*		HIEL Colonizer			
	Mean	Std	Mean	Std	Obs.	(%)
By Main Colonizer						
Belgium	5.062	–	7.470	–	1	0.93
Britain	6.712	0.975	7.815	0.206	49	45.79
France	5.921	0.678	7.059	0.272	27	25.23
Germany	6.068	0.570	7.420	0.146	4	3.74
Italy	4.604	–	6.366	–	1	0.93
Netherlands	6.521	0.421	7.962	0.034	2	1.87
Portugal	5.974	0.804	6.345	0.005	6	5.61
Spain	6.922	0.921	6.525	–	17	15.89
By Continent						
Africa	5.965	0.838	7.322	0.506	48	44.86
America	6.954	0.843	7.882	0.080	28	26.17
Asia	6.618	0.843	7.517	0.507	28	26.17
Oceania	7.647	1.158	8.083	0.191	3	2.80
Total	6.442	0.959	7.463	0.514	107	100.00

Notes: Colonies' economic freedom are measured by the *Economic Freedom of the World* index (EFW), and colonizer's by the *Historical Index of Economic Liberty* (HIEL). Both scale from 0 to 10. Countries with multiple colonizers have been classified according to Table A2. Shares may not add to 100% due to rounding. Excludes 21 colonies without EFW data.

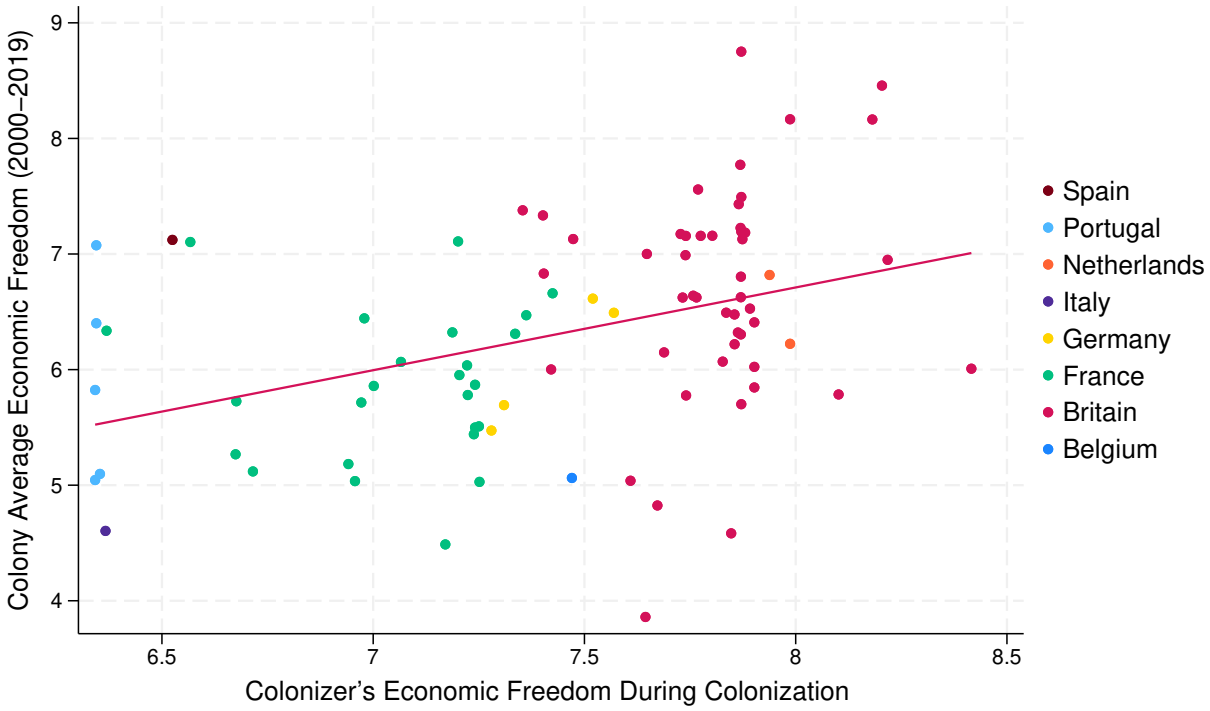

Figure A1: Raw correlation between economic freedom of colony and its colonizer

Notes: See Table A2 for details.

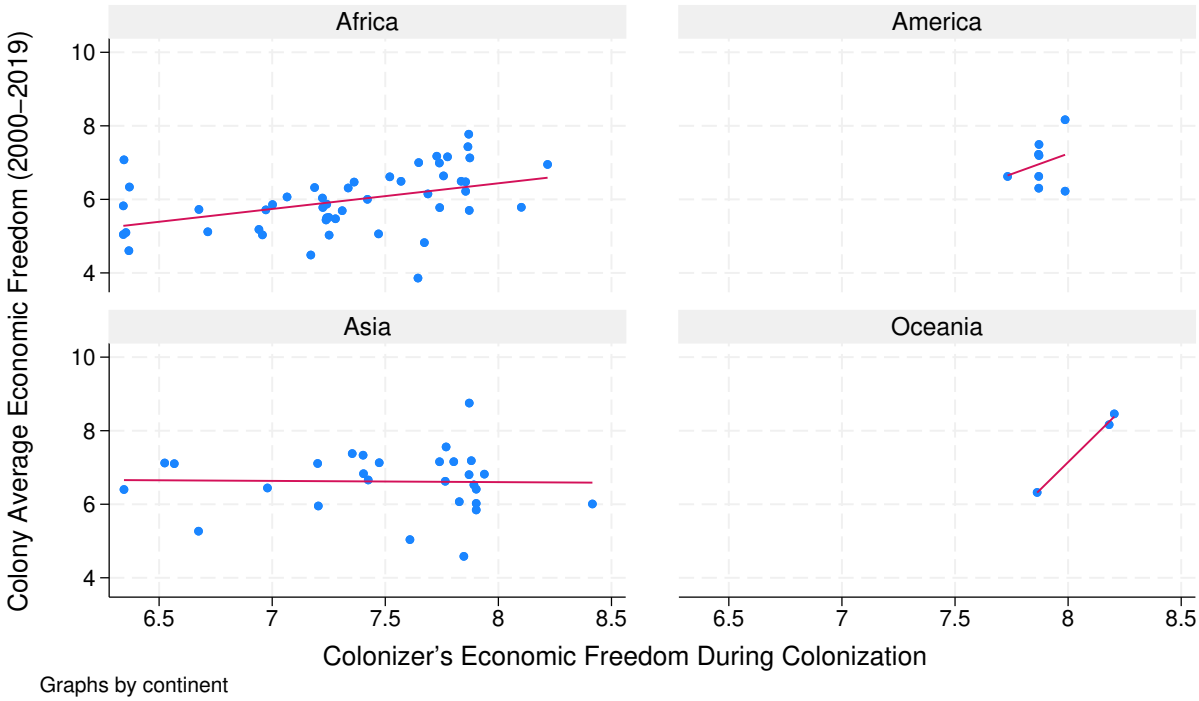

Figure A2: Raw correlation between economic freedom of colony and its main colonizer, by continent

Notes: See Table A2 for details.

B Additional Results

Table B1: Economic Freedom of Colonizer and Average Economic Freedom (2000-2019): Sample Splits

Dependent Variable:	*Avg. EFW (2000-2019)*			
	Colonized Post-1850	Without Africa	Without Americas	Without "Neo-Europes"
	(1)	(2)	(3)	(4)
HIEL Colonizer	0.579***	-0.533*	0.426**	0.424**
	(0.125)	(0.187)	(0.169)	(0.166)
America dummy	-	-0.198**	-	-
	(–)	(0.0586)	(–)	(–)
Africa dummy	0.330	-	-0.910**	-0.174
	(0.407)	(–)	(0.366)	(0.256)
Asia dummy	-	0.175**	-0.609**	0.121
	(–)	(0.0361)	(0.245)	(0.147)
Abs. Latitude	-0.0192	1.722***	-0.453	-0.266
	(2.476)	(0.284)	(1.324)	(1.230)
Landlocked	0.386	-0.254	0.203	0.223
	(0.382)	(0.204)	(0.366)	(0.358)
Island	0.417	1.114***	0.803*	0.863**
	(0.304)	(0.0228)	(0.350)	(0.292)
Ruggedness	0.001	-0.001**	0.001	0.001
	(0.001)	(0.000)	(0.001)	(0.001)
Pop. Density in 1500	-0.045	-0.279***	-0.157**	-0.146**
	(0.090)	(0.008)	(0.043)	(0.046)
N	40	22	58	63
R^2	0.239	0.746	0.481	0.408

Notes: Standard errors clustered at the colonizer level in parenthesis. *, **, and *** indicate statistical significance at the 10, 5, and 1% levels, respectively. Dependent variable is the average *Economic Freedom of the World* (EFW) Index score in the 2000-2019 period. The scores range from 0 to 10. HIEL Colonizer is the average HIEL score (starting in 1850) of the colonizer(s) during the period of colonization. Column 4 excludes Australia, Canada, New Zealand from the sample; the United States is not in this sample because it became independent before 1850. All columns use the same set of controls; cells with – or (–) have been omitted for lack of observations or collinearity.

Table B2: Economic Freedom of Colonizer and Areas of Economic Freedom (2000-2019)

Dependent Variable:	*Area 1 - Size of Government*			
Panel A:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	0.325**	0.204	-0.0373	0.415
	(0.131)	(0.170)	(1.242)	(1.038)
R^2	0.029	0.205	0.745	0.789
Dependent Variable:	*Area 2 - Property Rights and Rule of Law*			
Panel B:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	1.124***	0.650**	1.956*	2.372
	(0.290)	(0.252)	(0.753)	(1.626)
R^2	0.176	0.476	0.821	0.849
Dependent Variable:	*Area 3 - Sound Money*			
Panel C:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	0.505***	0.451	1.797	2.089
	(0.135)	(0.314)	(1.213)	(1.200)
R^2	0.043	0.249	0.728	0.749
Dependent Variable:	*Area 4 - Freedom to Trade Internationally*			
Panel D:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	0.740**	0.650*	2.288***	2.867***
	(0.302)	(0.317)	(0.321)	(0.615)
R^2	0.078	0.282	0.757	0.805
Dependent Variable:	*Area 5 - Regulation*			
Panel E:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	0.881***	0.638***	0.106	0.616
	(0.124)	(0.165)	(1.145)	(0.937)
R^2	0.158	0.359	0.661	0.699
Controls				
Continent Dummies	No	Yes	Yes	Yes
Basic Geographical	No	Yes	Yes	Yes
Ruggedness	No	No	Yes	Yes
Pop Density in 1500	No	No	Yes	Yes
Settler Mortality	No	No	Yes	Yes
Humidity/Temperature	No	No	Yes	Yes
Climate/Social	No	No	Yes	Yes
Natural Resources	No	No	Yes	Yes
Legal Origins	No	No	No	Yes
Colonizer FE	No	No	Yes	Yes
N	87	70	53	53

Notes: Standard errors clustered at the colonizer level in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. All panels average the dependent variable for the 2000-2019 period. Controls report the variables included in each column, identical across panels.

Table B3: Multiple Colonizers and Institutional Cohesion

Dependent Variable:	*St. Dev. Across Areas of EFW (2000-2019 avg.)*			
	(1)	(2)	(3)	(4)
Multiple Colonizers	-0.141**	-0.100	-0.201**	-0.217***
	(0.0450)	(0.0562)	(0.0732)	(0.0374)
America dummy		0.434	0.301	0.187
		(0.237)	(0.437)	(0.371)
Africa dummy		0.409*	0.170	-0.0134
		(0.184)	(0.537)	(0.403)
Asia dummy		0.240*	0.0347	0.108
		(0.116)	(0.380)	(0.501)
Abs. Latitude		-0.483**	1.329*	1.320*
		(0.154)	(0.563)	(0.635)
Landlocked		0.0438	0.271	0.233
		(0.104)	(0.202)	(0.219)
Island		0.0384	0.116	-0.00770
		(0.231)	(0.374)	(0.268)
Ruggedness			-0.00136	-0.000903
			(0.000773)	(0.00111)
Log Settler Mortality			0.000986	0.0268
			(0.0674)	(0.0835)
Pop. Density in 1500			0.0942	0.0705
			(0.0583)	(0.0622)
French Legal Origin				0.671*
				(0.323)
British Legal Origin				0.238
				(0.182)
P-val. humidity			[0.118]	[0.002]
P-val. temperature			[0.006]	[0.000]
P-val. climate/soil			[0.518]	[0.000]
P-val. nat. resources			[0.064]	[0.000]
Colonizer FE	No	No	Yes	Yes
N	107	90	73	73
R^2	0.020	0.094	0.470	0.520

Notes: Standard errors clustered at the colonizer level in parenthesis. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Dependent variable is the average standard deviation across the five subindexes of the *Economic Freedom of the World* index (EFW) score in the 2000-2019 period. Columns 3 and 4 include four indicators of humidity, five indicators of temperature, and six indicators of climate/soil, as well as controls for the presence of gold, iron, silver, zinc, and oil reserves (not reported). Dummies for German and Scandinavian not included for lack of observations.

C Robustness Checks

C.1 Effective Regression Weights

Tables C1.A and C1.B report the distribution of effective regression weights by continent and by colonizer for each of the four specifications of Table 1, as in Aronow and Samii (2016). The second column, Expected Weight, reports the percentage of observations coming from each continent/colonizer, thus also implying the percentage of expected regression weights assigned to that continent/colonizer if all observations contributed identical weights to the estimation of *HIEL Colonizer*. The third column, Effective Weight, report the percentage of regression weights effectively received by each continent/colonizer. The last column reports the ratio of effective to expected weight; thus, values greater than 1 indicate overrepresentation, while values less than 1 indicate underrepresentation.

Although there is some variation across specifications, no continent/colonizer is consistently over- or underrepresented across all specifications. Discrepancies greater than 10 percentage points (i.e., Ratio < 0.9 or Ratio > 1.1) are also mostly restricted to continents/colonizers with very small numbers of observations, presumably because their distribution of weights is not so smooth. However, this also indicates that relatively large localized imbalances have small impacts on the overall sample.

Table C1.A: Regression Weights for HIEL Colonizer Coefficient, by Continent

Colonizer	Obs.	Expected Weight (%)	Effective Weight (%)	Ratio
Table 3, Column 1				
Africa	48	0.552	0.532	0.965
America	8	0.092	0.102	1.105
Asia	28	0.322	0.326	1.014
Oceania	3	0.034	0.040	1.155
Table 3, Column 2				
Africa	46	0.657	0.709	1.078
America	8	0.114	0.081	0.712
Asia	13	0.186	0.195	1.052
Oceania	3	0.043	0.015	0.344
Table 3, Column 3				
Africa	32	0.604	0.668	1.106
America	8	0.151	0.107	0.708
Asia	11	0.208	0.222	1.068
Oceania	2	0.038	0.004	0.101
Table 3, Column 4				
Africa	32	0.604	0.669	1.108
America	8	0.151	0.107	0.709
Asia	11	0.208	0.220	1.061
Oceania	2	0.038	0.004	0.101

Notes: See Table 3 for specifications.

Table C1.B: Regression Weights for HIEL Colonizer Coefficient, by Colonizer

Colonizer	Obs.	Expected Weight (%)	Effective Weight (%)	Ratio
Table 3, Column 1				
Belgium	1	0.011	0.012	1.002
Britain	48	0.552	0.600	1.088
France	25	0.287	0.258	0.899
Germany	4	0.046	0.045	0.989
Italy	1	0.011	0.008	0.726
Netherlands	2	0.023	0.026	1.125
Portugal	5	0.057	0.041	0.721
Spain	1	0.011	0.009	0.766
Table 3, Column 2				
Belgium	0	0	0	–
Britain	37	0.529	0.528	0.999
France	21	0.300	0.321	1.070
Germany	4	0.057	0.061	1.069
Italy	1	0.014	0.020	1.393
Netherlands	2	0.029	0.033	1.140
Portugal	4	0.057	0.031	0.540
Spain	1	0.014	0.007	0.472
Table 3, Column 3				
Belgium	0	0	0	–
Britain	26	0.491	0.472	0.963
France	19	0.358	0.375	1.045
Germany	4	0.075	0.076	1.013
Italy	0	0	0	–
Netherlands	2	0.038	0.041	1.080
Portugal	2	0.038	0.036	0.956
Spain	0	0	0	–
Table 3, Column 4				
Belgium	0	0	0	–
Britain	26	0.491	0.471	0.961
France	19	0.358	0.375	1.047
Germany	4	0.075	0.077	1.014
Italy	0	0	0	–
Netherlands	2	0.038	0.041	1.082
Portugal	2	0.038	0.036	0.958
Spain	0	0	0	–

Notes: See Table 3 for specifications.

C.2 Sensitivity Analysis

I perform several robustness checks for potential selection on unobservables. First, I compute Oster (2019)'s δ, which indicates the ratio of selection on unobservables to selection on observables required for a zero effect ($\beta = 0$). For instance, a δ of 2 means that unobservables would have to have twice the explanatory power of observables to "explain away" the results.

However, Oster's δ suffers from two potential problems. As argued in Diegert et al. (2022), Oster's approach uses a method called *residualization* to avoid making assumptions about the exogeneity of the controls. As the name suggests, *residualization* "replaces the unobservables by the portion of the unobservables that is uncorrelated with the included controls." (Diegert et al., 2022, p. 3). Nonetheless, in practical applications, unobservables are likely correlated with the included controls.[1] Thus, Oster's δ suffers from inverse monotonicity biases, whereby excessive weight is given to unobservables when most selection is done by observables, and too much weight is given to observed variables when most of the selection is done by unobservables (Diegert et al., 2022, p. 5).

The second problem, described in Masten and Poirier (2024), is that the "explain away" breakdown point – the smallest value of δ required for $\beta = 0$ – is not necessarily the same as the smallest δ required for β to flip its sign – the *sign change* breakdown point.[2]

Their sensitivity parameter, $\bar{r}_X$, follows the intuition of Oster's δ – Selection on Unobservables / Selection on Observables –, but accounts for correlation between observables and unobservables. More generally, their method allows researchers to set the problem as an inequality (in this case $\beta > 0$). Their method also allows for controlling for a maximum amount of correlation ($\bar{c}$) between unobservables and included controls X. When $\bar{c} = 1$, by construction, $\bar{r}_X < 1$.

The interpretation of $\bar{r}_X$ generally follows that of Oster's δ in the sense that a $\bar{r}_X = 0.5$ implies that selection on unobservables would have to be 50% as large as selection on observables, but the outcome and benchmark differ, as discussed below.

Table C2.A reports the results for Tables 3 and 4.[3] In column 1, I report Oster (2019)'s δ. I follow Oster's rule of thumb for assuming that R^2 would rise by a maximum of 30% if all unobservables were included in the regression ($R^2_{long} = 1.3 \times R^2_{med}$).

Columns 2 through 5 report the values of $\bar{r}_X$ under different assumptions of maximum correlation ($\bar{c}$) between unobservables and included controls X. In these columns, there is no constraint on the relative impact of unobservables on the outcome variable.[4] However, as argued in Diegert et al. (2022, p.40-42), this is a conservative estimate.

[1] On this topic, see Angrist and Pischke (2017, p. 129).

[2] As explained in Masten and Poirier (2024, p. 2): "This can occur when the omitted variable bias is discontinuous in the sensitivity parameter, allowing the value of the bias adjusted estimand to jump across the horizontal axis at zero as the sensitivity parameter varies. [...] Such discontinuities can arise in regression analysis because the sensitivity parameters often involve covariance and variance terms, which lead to nonlinear restrictions on the value of the bias."

[3] Because these tests are always performed *relative to* a baseline set of parameters, I do not report the least-specified equation of each table. Following the recommendations of Diegert et al. (2022), I use the basic geographical characteristics (continent, island, and landlocked dummies, as well as latitude) as the baseline.

[4] Formally, this is denoted by $\bar{r}_Y$, which is the analogous measure to $\bar{r}_X$, but relates the ratio of unobservables to observables to Y, the outcome variable.

The authors suggest $\bar{r}_X = \bar{r}_Y$ as an alternative benchmark, which assumes that the impact of unobservables (relative to observables) is the same for treatment (X) and for outcomes (Y). However, the process of imposing this constraint requires a numerical optimization algorithm, which can be extremely demanding in terms of computational capacity. Therefore, I was not able to obtain it for some specifications, denoted in the tables with (–).

Most results for specifications including all controls are quite robust to selection on observables according to Oster's δ. For instance, the specifications of Table 3, Col.4, and Columns 3 and 6 of Table 5 (Panels B and C), would require selection on unobservables from 105.2% to 507.1% that of on observables to drive the results to zero. Notice that column 3 of Table 5 follows the same specification as Table 3, Column 4, but includes a control for European ancestry, and the sensitivity parameters are substantially improved. Thus, the inclusion of this control eliminates a large portion of selection on unobservables.

In turn, when no restriction on $\bar{r}_Y$ is applied (Columns 2-5 of Tables C2.A-C2.B), the $\bar{r}_X$ parameters hover around 0.4-0.7 in the tests for *Avg. HIEL*. This can be considered robust according to the discussion in (Diegert et al., 2022, pp. 31, 40).[5]

Moreover, when we apply the restriction $\bar{r}_X = \bar{r}_Y$ – assuming the impact of unobservables (relative to observables) is the same for treatment (X) and for outcomes (Y) –, the results are deemed much more robust to unobservables.

Table C2.A: Sensitivity Analysis, Tables 3-4

	Oster (2019)	Diegert et al. (2022)				
Parameters	δ $(R^2_{long} = 1.3 \times R^2_{med})$	$\bar{r}_Y = +\infty$ $\bar{c} = 0.25$	$\bar{r}_Y = +\infty$ $\bar{c} = 0.5$	$\bar{r}_Y = +\infty$ $\bar{c} = 0.75$	$\bar{r}_Y = +\infty$ $\bar{c} = 1$	$\bar{r}_Y = \bar{r}_X$ $\bar{c} = 1$
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Table 3:						
Avg. HIEL						
Column 3	0.685	0.339	0.337	0.337	0.337	0.614
Column 4	1.054	0.471	0.459	0.459	0.459	0.702
Table 4:						
Postwar						
Column 4	0.977	0.248	0.248	0.248	0.248	–
Postwar×HIEL Indep.						
Column 5	0.149	0.047	0.047	0.047	0.047	–

Notes: Sensitivity analysis not provided for nonsignificant coefficients or columns with less than the baseline controls (e.g., Column 2, Table 3). Estimates could not be obtained for cells with –. See main text for details.

[5]They suggest a cutoff of 0.5 as a "more reasonable value for determining robustness." Diegert et al. (2022, pp. 31). As they argue, this is sensible assumption because researchers do not choose controls at random. It is likely that they first include the most important variables, and thus omitted ones will likely have less predictive power. Also see Altonji et al. (2005).

Table C2.B: Sensitivity Analysis, Table 5

Parameters	Oster (2019)	Diegert et al. (2022)				
	δ $(R^2_{long} = 1.3 \times R^2_{med})$	$\bar{r}_Y = +\infty$ $\bar{c} = 0.25$	$\bar{r}_Y = +\infty$ $\bar{c} = 0.5$	$\bar{r}_Y = +\infty$ $\bar{c} = 0.75$	$\bar{r}_Y = +\infty$ $\bar{c} = 1$	$\bar{r}_Y = \bar{r}_X$ $\bar{c} = 1$
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Table 5A:						
Column 2						
Avg. HIEL	0.942	0.389	0.385	0.385	0.385	0.626
Euro Settlers	0.207	0.148	0.148	0.148	0.148	0.375
Table 5B:						
Avg. HIEL						
Column 2	0.659	0.632	0.591	0.588	0.588	0.745
Column 3	1.512	0.471	0.459	0.459	0.459	0.648
Column 5	0.668	0.633	0.592	0.589	0.589	0.747
Column 6	1.919	0.463	0.452	0.452	0.452	0.613
Euro Origins						
Column 6	0.379	0.376	0.376	0.376	0.376	-
Avg. HIEL×*Euro O.*						
Column 6	0.901	0.377	0.374	0.374	0.374	0.561
Table 5C:						
Avg. HIEL						
Column 2	0.872	0.715	0.655	0.645	0.645	0.798
Column 3	2.875	0.418	0.412	0.412	0.412	0.599
Column 5	0.731	0.635	0.593	0.590	0.590	0.775
Column 6	3.075	0.410	0.405	0.405	0.405	0.565
Adj. Euro Origins						
Column 6	3.616	0.092	0.092	0.092	0.092	–
Avg. HIEL×*Adj. Euro O.*						
Column 6	5.071	0.091	0.091	0.091	0.091	0.264
Table 6:						
HIEL Indep						
Column 3	0.354	0.360	0.358	0.358	0.358	0.740
HIEL Indep.×*Years since Indep.*						
Column 3	1.045	0.420	0.414	0.414	0.414	0.729
Avg. HIEL						
Column 5	0.289	0.289	0.289	0.289	0.289	0.679
Column 6	0.398	0.154	0.154	0.154	0.154	0.775
Avg. HIEL×*Years since Indep.*						
Column 6	0.275	0.373	0.370	0.370	0.370	0.786

Notes: Sensitivity analysis not provided for nonsignificant coefficients or columns with less than the baseline controls (e.g., Column 2, Table 3). Estimates could not be obtained for cells with –. See main text for details.

C.3 Conley Spatial Standard Errors

The main results cluster the standard errors at the colonizer level. However, a potential concern is that neighboring countries are more likely to have been colonized by the same colonizer within a relatively short period, introducing spatial correlation across observations. Conley and Kelly (2025) argue that accounting for spatial correlation is especially important in studies of persistence. Indeed, several clusters of colonization are visible in Figure 1 (in the main text). Here, I reestimate the main results from Tables 1-4 using Conley (1999) spatial standard errors at four distance thresholds: 1,000, 2,500, 5,000, and 10,000 km. The new standard errors and their significance levels are reported in Table C3.A for Tables 1 and 3 and in Table C3.B for Table 4. Unfortunately, those for columns 3 and 6 of Table 6 could not be estimated using Conley (1999) standard errors – see Table C3.C.[6]

The results using Conley (1999) errors are generally at the same or higher levels significance, indicating that accounting for spatial correlation actually leads to more precise estimates. A clear exception is the results involving the coefficient *Postwar* and its interaction with *HIEL Indep.*. This seems to be the case that knowing the latitude and longitude will tell one whether a country has had independence before or after the war, as discussed in Conley and Kelly (2025).

Table C3.A: Reproduction of Tables 3-4, Accounting for Spatial Correlation

		Clustered	Conley (1999) with Distance Threshold:			
	Coefficient		1,000km	2,500km	5,000km	10,000km
		(1)	(2)	(3)	(4)	(5)
Table 3						
HIEL Colonizer						
Column 1	0.716	0.153***	0.188***	0.191***	0.185***	0.152***
Column 2	0.521	0.206**	0.208**	0.200**	0.211**	0.208**
Column 3	1.199	0.325**	0.527**	0.446**	0.341**	0.000***
Column 4	1.648	0.206***	0.537***	0.415***	0.354***	0.249***
Table 4						
Postwar						
Column 4	-0.451	0.148*	0.266*	0.255*	0.297*	0.230*
Column 5	-1.228	0.381**	2.486	2.368	2.361	2.217
Postwar × *HIEL Indep.*						
Column 5	0.117	0.057*	0.344	0.332	0.334	0.317

Notes: Estimations not performed for nonsignificant results. See main tables for full specification.

[6]Package `conleyreg` in R informs: `Error in solve.default(crossprod(V_spatial_HAC)) : system is computationally singular: reciprocal condition number = 2.28269e-25`. This is likely due to the high dimensionality of fixed effects.

Table C3.B: Reproduction of Table 5, Accounting for Spatial Correlation

		Clustered	Conley (1999) with Distance Threshold:			
			1,000km	2,500km	5,000km	10,000km
	Coefficient	(1)	(2)	(3)	(4)	(5)
Table 5A						
Avg. HIEL						
Column 1	0.431	0.159***	0.231*	0.207**	0.206**	0.174**
Column 2	0.337	0.145*	0.216	0.188*	0.162**	0.126**
Column 4	0.349	0.169*	0.252	0.230	0.237	0.205*
Euro Settlers						
Column 1	0.021	0.002***	0.003***	0.003***	0.003***	0.003***
Column 2	0.012	0.003***	0.007	0.009	0.009	0.008
Column 4	-0.294	0.120*	0.158*	0.134**	0.110*	0.093***
Avg. HIEL × Euro Settlers						
Column 4	0.039	0.015**	0.019	0.017**	0.013***	0.012***
Table 5B						
Avg. HIEL						
Column 1	0.718	0.134***	0.213***	0.212***	0.184***	0.142***
Column 2	0.446	0.146**	0.189**	0.187**	0.197**	0.193**
Column 3	1.442	0.440***	0.461***	0.388***	0.353***	0.246***
Column 4	0.698	0.125***	0.213***	0.213*	0.186***	0.143***
Column 5	0.448	0.153**	0.189**	0.187**	0.196**	0.191**
Column 6	1.344	0.217***	0.421***	0.338***	0.289***	0.206***
Euro Origins						
Column 3	-0.016	0.008	0.004***	0.004***	0.004***	0.005***
Column 4	-0.206	0.056***	0.184	0.161	0.157	0.146
Column 6	-1.344	0.466**	0.521**	0.514**	0.450***	0.384***
Avg. HIEL × Euro Origins						
Column 4	0.026	0.007***	0.023	0.020	0.020	0.018
Column 6	0.167	0.060**	0.066**	0.065**	0.057***	0.048***
Table 5C						
Avg. HIEL						
Column 1	0.648	0.124***	0.208***	0.204***	).173***	0.139***
Column 2	0.443	0.141**	0.191**	0.189**	0.201**	0.200**
Column 3	1.299	0.432**	0.486**	0.412***	0.359***	0.234***
Column 4	0.615	0.114***	0.209***	0.207***	0.179***	0.147***
Column 5	0.427	0.141**	0.194**	0.206**	0.206**	0.204**
Column 6	1.067	0.227***	0.450**	0.368**	0.289***	0.184***
Adj. Euro Origins						
Column 1	0.005	0.001**	0.003	0.004	0.005	0.004
Column 3	-0.016	0.008	0.004***	0.004***	0.005***	0.005***
Column 4	-0.277	0.031***	0.137**	0.123**	0.124**	0.116**
Column 6	-1.433	0.470**	0.543**	0.457***	0.345***	0.245***
Avg. HIEL × Adj. Euro Origins						
Column 4	0.035	0.004***	0.017**	0.015**	0.015**	0.014**
Column 6	0.178	0.060**	0.068**	0.058***	0.044***	0.031***

Notes: Estimations not performed for nonsignificant results. See main tables for full specification.

Table C3.C: Reproduction of Table 6, Accounting for Spatial Correlation

		Clustered	Conley (1999) with Distance Threshold:			
			1,000km	2,500km	5,000km	10,000km
	Coefficient	(1)	(2)	(3)	(4)	(5)
Table 6 *HIEL at Indep.*						
Column 1	-0.031	0.321	0.192	0.204	0.214	0.205
Column 2	0.117	0.316	0.322	0.326	0.265	0.240
Column 3	1.245	0.399***		[see Table Notes]		
HIEL at Indep. × *Years since Indep.*						
Column 1	0.003	0.003	0.003	0.003	0.003	0.002
Column 2	0.006	0.003	0.005	0.004	0.004	0.004
Column 3	0.003	0.001*		[see Table Notes]		
Avg. HIEL						
Column 4	0.840	0.288**	0.354**	0.365**	0.360**	0.298***
Column 5	0.691	0.299*	0.351**	0.369*	0.349*	0.256***
Column 6	1.827	0.459		[see Table Notes]		
Avg. HIEL × *Years since Indep.*						
Column 4	-0.003	0.006	0.006	0.006	0.007	0.006
Column 5	0.005	0.005	0.006	0.006	0.007	0.006
Column 6	0.009	0.003*		[see Table Notes]		

Notes: Columns 3 and 6 could not be estimated using Conley (1999) standard errors. Package `conleyreg` in R informs: `Error in solve.default(crossprod(V_spatial_HAC)) : system is computationally singular: reciprocal condition number = 2.28269e-25`. This is likely due to the high dimensionality of fixed effects.

C.4 Population-Weighted Regressions

Table C4: Economic Freedom of Colonizer and Average Economic Freedom (2000-2019): Population Weighted

Dependent Variable:	*Avg. EFW (2000-2019)*			
	(1)	(2)	(3)	(4)
HIEL Colonizer	0.453***	0.236	0.621	1.659**
	(0.122)	(0.179)	(0.317)	(0.399)
America dummy		-0.0603	-0.723	0.0229
		(0.120)	(0.586)	(1.007)
Africa dummy		-1.789***	-1.324	0.304
		(0.280)	(0.927)	(1.818)
Asia dummy		-1.470***	-1.538	-0.546
		(0.217)	(0.848)	(1.202)
Abs. Latitude		-1.153	-3.712**	-1.346
		(0.936)	(1.272)	(2.172)
Landlocked		0.259	1.122*	1.497***
		(0.436)	(0.412)	(0.293)
Island		0.334*	0.930	1.064
		(0.160)	(0.490)	(0.561)
Ruggedness			-0.00226	0.0000893
			(0.00296)	(0.00197)
Log Settler Mortality			-0.173	-0.399**
			(0.207)	(0.124)
Pop. Density in 1500			-0.0692	0.0397
			(0.140)	(0.227)
French Legal Origin				0.413
				(0.748)
British Legal Origin				1.517***
				(0.217)
P-val. humidity			[0.002]	[0.000]
P-val. temperature			[0.013]	[0.000]
P-val. climate/soil			[0.322]	[0.000]
P-val. nat. resources			[0.200]	[0.417]
Colonizer FE	No	No	Yes	Yes
N	87	70	53	53
R^2	0.090	0.329	0.882	0.914

Notes: Standard errors clustered at the colonizer level in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Observations weighted by population at independence. Dependent variable is the average *Economic Freedom of the World* (EFW) index score in the 2000-2019 period. The scores range from 0 to 10. HIEL Colonizer is the average HIEL score (starting in 1850) of the colonizer(s) during the period of colonization. Columns 3 and 4 include four indicators of humidity, five indicators of temperature, and six indicators of climate/soil, as well as controls for the presence of gold, iron, silver, zinc, and oil reserves. Dummies for German and Scandinavian not included for lack of observations.

C.5 Controlling for Institutional Quality

In this section, I present robustness checks to distinguish the effect of economic freedom from other measures of institutional quality. Thus, I aim to show that there is a distinctive component of economic freedom that is not explained by contemporaneous measures of institutions.

As benchmarks, I use four measures of institutions, all sourced from V-Dem (Coppedge et al., 2019): Rule of Law, Judicial Constraints on the Executive, Electoral Democracy, and Liberal Democracy. Table C5.A show the pairwise correlation between the HIEL and each of these four other variables.

Table C5.A: Pairwise Correlation with Economic Freedom (HIEL) of Colonizer

Variable:	Rule of Law	Jud. Constraints on Exec.	Electoral Democracy	Liberal Democracy
V-Dem code	(`v2x_rule`)	(`v2x_jucon`)	(`v2x_polyarchy`)	(`v2x_libdem`)
Correlation	0.8453	0.8882	0.5206	0.5935

To capture the components of economic freedom that are independent of these institutions, I regress the colonizer's average economic freedom (HIEL) score on each of the aforementioned measures, and then use the residuals as the main explanatory variables for modern day economic freedom. This "residualized" measure captures the components of economic freedom that are orthogonal to the alternative measures of institutional quality. The results are reported in Table C5.B.

The results are largely robust to this method, sometimes at even greater magnitudes, but somewhat less precisely estimated. A minor exception is when I use the residuals from judicial constraints on the executive, for which two out of the four specifications become nonsignificant.

Table C5.B: Economic Freedom of Colonizer and Average Economic Freedom (2000-2019): Accounting for Institutional Quality

Dependent Variable:	**Average Economic Freedom (2000-2019)**			
Explanatory Variable:	*Economic Freedom orthogonal to the Rule of Law*			
Panel A:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	1.238***	1.921***	2.384***	2.308
	(0.113)	(0.503)	(0.368)	(1.260)
R^2	0.132	0.523	0.819	0.839
Explanatory Variable:	*Economic Freedom orthogonal to Judicial Constraints of the Executive*			
Panel B:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	0.786*	0.909	1.926*	1.827
	(0.349)	(0.768)	(0.886)	(1.110)
R^2	0.039	0.403	0.803	0.831
Explanatory Variable:	*Economic Freedom orthogonal to Electoral Democracy (Polyarchy)*			
Panel C:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	0.881***	0.983***	1.519**	1.656**
	(0.0857)	(0.217)	(0.420)	(0.534)
R^2	0.170	0.507	0.808	0.841
Explanatory Variable:	*Economic Freedom orthogonal to Liberal Democracy*			
Panel D:	(1)	(2)	(3)	(4)
Avg. HIEL Colonizer	0.899***	1.081***	1.510**	1.626*
	(0.119)	(0.230)	(0.435)	(0.603)
R^2	0.158	0.512	0.808	0.840
Controls				
Continent Dummies	No	Yes	Yes	Yes
Basic Geographical	No	Yes	Yes	Yes
Ruggedness	No	No	Yes	Yes
Pop Density in 1500	No	No	Yes	Yes
Settler Mortality	No	No	Yes	Yes
Humidity/Temperature	No	No	Yes	Yes
Climate/Social	No	No	Yes	Yes
Natural Resources	No	No	Yes	Yes
Legal Origins	No	No	No	Yes
Colonizer FE	No	No	Yes	Yes
N	87	70	53	53

Notes: Standard errors clustered at the colonizer level in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. All panels average the dependent variable for the 2000-2019 period. In each panel, the explanatory variable is obtained by regressing the average HIEL of the colonizer on the respective measure of institutional quality, and using the residuals. Controls report the variables included in each column, identical across panels.

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