Online Appendices

Online Appendix 1. Data description

This online appendix describes the data on the explanatory variables, section 3.2 in the main text, in further detail, describes the sources and provide the references. All data is publicly available.

Institutional factors

Many measures can be used to capture different features of the institutional framework in a country, and we use several sources to cover a broad aspect of factors.

From the World Bank's Worldwide Governance Indicators (WGI), we capture measures of the functioning of the public sector, the rule of law, government involvement in markets, as well as the stability and openness of political institutions. These account for public institutional influences.

We measure the level of democracy from the so-called Polity IV project—a widely used international data set. We use the values in Samanni et al. (2010), which assigns every country a value between -10 (for a fully autocratic regime) and 10 (denoting a fully democratic institution). From this data set, we also use a measure quantifying the extent of institutionalized constraints on the decision-making power of the executive branch. The variable is the same as in Ashraf and Galor (2013), and we use the 1960–2000 mean of an index, reported annually as a 7-point categorical variable (from 1 to 7).

From the Fraiser Institute, we use a measure of economic freedom, capturing the degree to which an economy is market-oriented, consisting of five components: (1) the size of government, (2) legal structure and security of property rights, (3) access to sound money, (4) freedom to trade internationally, and (5) regulation of credit, labor, and business. Economic freedom is measured in 1995 by the aggregate index and its five components.

Finally, we consider what can be denoted as impartiality and professionalism. Impartiality measures if government officials treat everybody in the same situation in a similar manner. A high value of this measure indicates that those executing political power do not favor some groups or individuals over others (cf. Rothstein and Teorell 2008) and captures a fair playing field. For professionalism, we use a proxy for meritocracy, meaning that people get public positions by competence, not due to personal contacts or belonging to a certain group. The measures we use are from the Quality of Government's expert survey at the country level, as described in Dahlström et al. (2015).

Labor market and demographical factors

Labor force participation (total and female) and rigidity of employment measures are taken from the World Development Indicators. Additional aspects of potential importance include the mandatory minimum wage, and indices over employment laws, unemployment benefits, social security laws, and labor union power. These measures are constructed and discussed in Botero et al. (2004). The data is drawn from the compilation by Samanni et al. (2010).

To cover human capital aspects and the quality of the labor force, we use the average years of schooling from 1985 to 1995 from Chanda et al. (2014), and data on IQ from Lynn et al. (2009), as well as life expectancy.

In addition, we consider four dimensions of diversity; income, ethnic, religious, and genetic. The Gini coefficient for income is the WDI measure, as recorded in Samanni et al. (2010). The ethnic fractionalization data come from Ashraf and Galor (2013). Religious fractionalization is from Barro and McCleary (2003), and for genetic diversity, we use the predicted values by Ashraf and Galor (2013).

Cultural and Attitudinal factors

As empirical measures of cultural influences, we use, to begin with, the five cultural dimensions in Hofstede et al. (2010), namely, uncertainty avoidance, individualism (vs. collectivism), long-term orientation (also referred to as pragmatism), masculinity (vs. femininity), and power distance.[1]

Further, we use five questions on economic attitudes and the government's role in the economy included in the European Values Study and World Values Survey (EVS/WVS).[2] In the survey, individuals are asked to rate their agreement to statements about these questions on a ten-point scale (see EVS/WVS for a more detailed description of the statements used).

We also use EVS/WVS to cover potential influence from parents by using a survey where Individuals are asked their opinion on which priorities parents ought to encourage children to learn. The priorities span a wide range of values that offer variation across countries.[3] The ten qualities people might think are important in children are country averages across the first five waves of the survey.

Finally, to measure trust, we use the standard formulation about generalized trust from the World Values Survey.[4] Country averages, which capture the fraction with high trust, collected from Samanni et al. (2010) are used. From Barro and McCleary (2003), we also include a measure of secularism and religious belief based on data on the share of non-religious in 1970.

Developmental and geographical factors

Some general characteristics of a country that might influence entrepreneurial activity include economic development. Our empirical measures of economic development (GDP per capita) are from the World Development Indicators (data from Samanni et al. 2010). To measure the influence of communism, we use a variable, which takes the value one if the country's regime was communist in 1970, taken from Barro and McCleary (2003).

More long-term historical variables measure the years since the Neolithic revolution (in logs), percent at risk of malaria, population density in the year 1500, and state history (experience with an organized authority) in the year 1500. Geographical attributes of the countries included are the distance from the equator, latitude (measured from the North Pole), average temperature, and average precipitation. There is an indicator of the country being landlocked. Data is from Chanda et al. (2014) and Ashraf and Galor (2013).

Instrumental variables

The main instrumental variable is historical pathogens from Fincher et al. (2008). We use historical constraints on the executive (an average across the years 1600–1850) as an additional instrument. The variable is from Tabellini (2010).

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[1] See Hofstede et al. (2010) for a further discussion about these measures and how they can be interpreted. We use this source since the data covers a wider set of countries (compared to GLOBE).

[2] The questions refer to whether (1) luck or effort is most important for success, (2) wealth only can be accumulated at the expense of others, (3) competition is good, (4) government ownership should be increased, and, finally (5) government should take more responsibility for the well-being of its citizens.

[3] Examples include, e.g., "Hard work", "Feeling of responsibility", "Imagination", "Thrift, saving money and things", "Unselfishness", and "Obedience" out of which five priorities could be chosen.

[4] "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" The answers are coded 1 for "Most people can be trusted" and 0 for "You can't be too careful."

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Online Appendix 2. Tables

Table A1. LASSO selected variables with control variables.

Dependent variable: Entrepreneurial Employee Activity

	(1)	(2)	(3)	(4)	(5)	(6)
Impartiality	0.914	0.875	0.926	0.921	0.912	0.889
	(0.348)**	(0.364)**	(0.312)***	(0.352)**	(0.346)**	(0.336)**
Power distance (Hofstede)	-1.437	-1.452	-1.460	-1.484	-1.549	-1.437
	(1.391)	(1.404)	(1.418)	(1.475)	(1.396)	(1.408)
Control of corruption	0.414	0.616	0.267	0.401	0.434	0.447
	(0.551)	(0.645)	(0.551)	(0.558)	(0.561)	(0.671)
Years of schooling (1985-95 avg)	0.233	0.301	0.240	0.258	0.229	0.288
	(0.090)**	(0.128)**	(0.090)**	(0.100)**	(0.091)**	(0.128)**
Property rights (EFI component 2)	0.136	0.165	0.203	0.163	0.130	0.216
	(0.249)	(0.243)	(0.252)	(0.244)	(0.255)	(0.240)
GDP per capita		-0.415				-0.358
		(0.496)				(0.544)
Labour force participation rate			0.034			0.034
(age 15 and over)			(0.022)			(0.025)
Population share aged 65+				-0.025		0.011
				(0.057)		(0.066)
Industry's share of GDP					0.014	-0.002
					(0.029)	(0.032)
Constant	-2.857	0.380	-5.163	-2.958	-3.169	-2.254
	(3.003)	(5.327)	(3.291)	(3.015)	(3.155)	(5.463)
R-squared	0.698	0.702	0.709	0.699	0.699	0.711
Observations	57	57	57	57	57	57

Notes: The dependent variable is Entrepreneurial Employee Activity, averaged across the 2014, 2015, 2016, and 2017 survey waves of the Global Entrepreneurship Monitor.
Robust standard errors in parenthesis. Significance stars, * p<0.1, ** p<0.05, *** p<0.01.

Table A2. EBA selected variables with controls.

Dependent variable: Entrepreneurial Employee Activity

	(1)	(2)	(3)	(4)	(5)	(6)
Impartiality	0.865	0.837	0.885	0.865	0.872	0.862
	(0.311)***	(0.322)**	(0.282)***	(0.315)***	(0.307)***	(0.301)***
Years of schooling (1985-95 avg)	0.254	0.319	0.264	0.265	0.250	0.294
	(0.093)***	(0.132)**	(0.094)***	(0.101)**	(0.095)**	(0.135)**
Power distance (Hofstede)	-1.607	-1.598	-1.583	-1.627	-1.756	-1.579
	(1.401)	(1.403)	(1.421)	(1.476)	(1.405)	(1.389)
Control of corruption	1.032	1.214	0.866	1.015	1.088	1.094
	(0.725)	(0.837)	(0.741)	(0.737)	(0.746)	(0.952)
Rule of law	-0.504	-0.448	-0.349	-0.465	-0.560	-0.420
	(0.781)	(0.760)	(0.786)	(0.804)	(0.782)	(0.854)
GDP per capita		-0.385				-0.336
		(0.456)				(0.511)
Labour force participation rate			0.030			0.028
(age 15 and over)			(0.021)			(0.023)
Population share aged 65+				-0.011		0.025
				(0.061)		(0.071)
Industry's share of GDP					0.020	0.007
					(0.028)	(0.032)
Constant	-1.881	1.208	-3.691	-1.844	-2.417	-1.149
	(1.786)	(4.241)	(2.121)*	(1.894)	(2.005)	(4.575)
R-squared	0.704	0.707	0.713	0.704	0.706	0.715
Observations	58	58	58	58	58	58

Notes: The dependent variable is Entrepreneurial Employee Activity, averaged across the 2014, 2015, 2016, and 2017 survey waves of the Global Entrepreneurship Monitor.
Robust standard errors in parenthesis. Significance stars, * p<0.1, ** p<0.05, *** p<0.01.

Table A3. First stage estimates (for Table 4).

Dependent variable: Impartiality

	(1)	(2)	(3)	(4)
Historical pathogens	-1.270	-0.929	-0.911	-0.886
	(0.153)***	(0.258)***	(0.255)***	(0.242)***
Latitude		-0.002	-0.002	-0.001
		(0.008)	(0.008)	(0.008)
Distance to the equator		1.124	1.295	0.810
		(1.251)	(1.205)	(1.404)
State history (year 1500)		-0.550	-0.549	-0.635
		(0.448)	(0.439)	(0.468)
Population density (year 1500)		0.034	0.033	0.034
		(0.010)***	(0.010)***	(0.009)***
Years since Neolithic revolution (log)		-0.292	-0.226	-0.182
		(0.243)	(0.250)	(0.259)
UK legal origin			0.292	0.260
			(0.282)	(0.255)
French legal origin			0.016	-0.053
			(0.243)	(0.249)
Malaria risk				-0.827
				(0.744)
Constant	4.428	6.462	5.793	5.711
	(0.111)***	(1.899)***	(1.878)***	(1.878)***
R-squared	0.501	0.580	0.588	0.598
Observations	54	54	54	54

Notes: The dependent variable is Impartiality. Impartiality is instrumented with historical pathogens. First stage estimates from the two-stage least squares model presented.
Robust standard errors in parenthesis. Significance stars, * p<0.1, ** p<0.05, *** p<0.01.

Table A4. Instrumenting for Impartiality: historical pathogens and executive constraints.

Dependent variable: Entrepreneurial Employee Activity

	(1)	(2)	(3)	(4)
Impartiality	2.343	2.624	2.362	2.433
	(0.237)***	(0.480)***	(0.466)***	(0.480)***
Latitude		0.002	0.001	-0.001
		(0.012)	(0.011)	(0.012)
Distance to the equator		-0.099	1.131	2.331
		(2.307)	(2.263)	(2.242)
State history (year 1500)		1.496	1.267	1.531
		(1.053)	(1.005)	(1.089)
Population density (year 1500)		-0.080	-0.072	-0.077
		(0.030)***	(0.027)***	(0.027)***
Years since Neolithic revolution (log)		0.237	0.383	0.281
		(0.746)	(0.668)	(0.672)
UK legal origin			1.075	1.138
			(0.704)	(0.687)*
French legal origin			-0.056	0.128
			(0.554)	(0.521)
Malaria risk				2.191
				(1.401)
Constant	-7.151	-10.360	-11.007	-11.191
	(1.058)***	(6.851)	(6.016)*	(5.935)*
Hansen J-test (p-value)	0,9253	0,3102	0,4909	0,5083
F-stat for exclusion of instrument	48,15	9,97	8,72	8,25
R-squared	0.623	0.625	0.687	0.689
Observations	54	54	54	54

Notes: The dependent variable is Entrepreneurial Employee Activity, averaged across the 2014, 2015, 2016, and 2017 survey waves of the Global Entrepreneurship Monitor. Impartiality is instrumented with historical pathogens and historical constraints on the executive. Second stage estimates from the two-stage least squares model presented. Robust standard errors in parenthesis. Significance stars, * p<0.1, ** p<0.05, *** p<0.01.