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# Covid-19 and Development: Lessons from Historical Pandemics

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## Abstract

Disease does not only affect development through its contemporaneous impact on health, but also through its enduring historical effect through its shaping of culture and institutions. By drawing on the experience of historical pandemics, we argue that some of the current stringent approaches adopted in combating Covid-19 come at the expense of social capital (trust) and institutions (checks on government power), which hold back long-run development. We review the evidence that the Black Death intensified witchcraft beliefs and antisemitism, which, in turn, developed mistrust and exerted an adverse influence on present-day development. Finally, we demonstrate that institutions and culture have greater explanatory power in terms of cross-country infection rates and fatality rates than does health care quality.

Keywords: Covid-19; disease; institutions; plague, pandemic; social capital; xenophobia

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## 1. Introduction

The coronavirus Covid-19 pandemic spread across the world at an alarming rate, defining a unique global health crisis of our time. According to statisticians from Johns Hopkins University, as of 22 November 2020, more than 58.2 million cases have been confirmed, with more than 1.38 million related deaths - all attributed to COVID-19. In *World Economic Outlook*, the International Monetary Fund (IMF) predicts negative global growth (-4.4%) in 2020, much worse than experienced during the 2008–09 financial crisis. *Global Economic Prospects* published by the World Bank predicts the deepest global recession in eight decades, a -5.2% contraction in global GDP in 2020. The pandemic is much more than a health crisis. It is also an unprecedented socio-economic crisis. By drawing on the evidence from historical disease epidemics, we argue that the Covid-19 pandemic, and the related measures adopted to combat it, threatened to engender mistrust and xenophobia, and to degrade political and legal institutions, thereby undermining long-run development.

Alfani and Murphy (2017) and Brodeur et al. (2020) summarize major historical pandemics in human history such as the Plague of Justinian, the Black Death, the New World Smallpox Outbreak, the Spanish Flu, and HIV/AIDS among others. Economic studies of pandemics largely focus on the short-term economic effects that arise through labor supply shocks. For example, Jonung and Roeger (2006) estimate the reduction in GDP due to the illness and death associated with the H5N1 bird flu virus. Karlsson, Nilsson and Pichler (2014) document increases in the population's reliance on the poorhouse and in capital returns subsequent to the 1918 Spanish flu pandemic, which infected 500 million people worldwide. Jordà, Singh and Taylor (2020) study 19 major historical pandemics, each with at least 100,000 estimated deaths, and document lower subsequent returns on assets and a shift to greater precautionary savings.

Acemoglu, Johnson and Robinson (2003) point out that the disease environment has a more significant influence on economic development through the channel of institutional development than through the channel of health and life expectancy. For example, the rapid European domination over the newly discovered Americas is attributed to the relentless spread of Eurasian diseases among the indigenous population (e.g. Smallpox, measles, influenza, typhus, bubonic plague, etc.). This enabled the Europeans to assert complete control of the Americas, to form ruling institutions and to confiscate resources.

Acemoglu, Johnson and Robinson (2001) note that the mortality of European settlers in their colonies was largely caused by Malaria and Yellow Fever transmitted by mosquitos, and find the consequent feasibility of settlement for European colonizers decisive in shaping the colonization strategies adopted (i.e., extractive versus Neo-Europes). Different sets of persistent institutions in terms of private property rights and checks

against government power were created. Specifically, countries where Europeans faced severe disease conditions are now associated with weak institutions and backward present-day economic development. Beck, Demirgüç-Kunt, Levine (2003) add that the disease environment encountered by European colonizers also held back private credit and stock market development through the resulting formation of weak but long-lasting institutions.

Europeans face high mortality rates in colonies with harsh disease environment. In such situations, they were better off setting up institutions to extract resources from the colonies in question rather than settling down. Slave trade is an extreme example of extraction and caused a culture of mistrust to develop within Africa (Nunn, 2011). The number of slaves exported from a country is found to have adverse impact both on current economic performance (Nunn, 2008) and on present day access by firms to formal credit arrangements and to trade credit (Pierce and Snyder, 2018) and household access to financial services and credit (Levine, Lin and Xie, 2020).

Alsan (2015) analyses the geographic distribution of the TseTse fly, which causes human sleeping sickness and animal trypanosomiasis, and using satellite light density data finds it negatively associated with agricultural surplus and population density. She also finds it associated with pre-colonial political centralization as well as present day economic development. An, Hou and Chen (2020) show that the TseTse fly holds back the modern financial development and Fintech adoption in Africa by eroding trust.

The discussion of the Covid-19 pandemic has largely focused on human health, short-term market and firm reactions as well as environmental and economic indicators (Brodeur et al., 2020). We argue that its impact on culture and institutions could have greater significance for long-run development. In fact, certain measures effected to combat Covid-19 transmission could come at the expense of social capital and institutions.

## **2. Lessons from historical pandemics**

Governments of different countries are currently undertaking a wide range of measures in response to the COVID-19 outbreak. These can be found in the Oxford COVID-19 Government Response Tracker (OxCGRT), which summarizes the containment and closure policies, economic policies and health system policies currently in place. Cheng et al. (2020) hand-coded over 13,000 policy announcements across 195 countries and document the acceleration in adopting costly policies that took place across countries beginning in mid-March 2020 through 24 May 2020. Haug et al. (2020) assess the effectiveness of non-pharmaceutical government interventions and find that intrusive, drastic interventions are not necessarily more effective than less disruptive and less costly ones. There are also criticisms appearing in the media regarding certain government responses, such as the promotion of unproven treatments against Covid-19 and the application of indiscriminate lockdowns.

While not all disasters result in reducing trust, Aassve et al. (2020) find that pandemics such as the 1918-19 Spanish Flu are trust-reducing catastrophes. For the Covid-19 pandemic, we argue that certain government policy actions can foster mistrust and a xenophobic culture, and are particularly harmful to long-run development. We list a few examples below.

1) Propaganda that exaggerates the severity of pandemic in foreign countries and media censorship that forbids free discussion of the pandemic. According to the “Democracy Under Lockdown” by Freedom House, 91 countries experienced new or increased restrictions on their news media as a result of the Covid-19 outbreak.

2) Travel restrictions of citizens abroad inhibiting return to their respective home countries. In the report of *COVID-19 and Human Rights: We are all in this together*, the United Nation acknowledges that restricting freedom of movement is a practical and necessary measure to stop virus transmission, but also urges that such restriction should be proportionate and non-discriminatory, given that effective testing, tracing, and targeted quarantine measures are available.

3) Privacy and data protection. In some countries, the personal information of individuals who are tested positive for coronavirus is disclosed in the public media - including surname, nationality, home address, hospital, location history, close contacts and the relationships between them. Sometimes, similar information on their immediate family members is also released. This leaves people who fall sick with COVID-19 vulnerable to discrimination. United Nation and World Health Organisation made a *Joint Statement on Data Protection and Privacy in the COVID-19 Response* also raise concerns that certain usage of personal data can potentially lead to an infringement of the right to privacy.

4) Regarding institutions, concerns have been raised concerning the arbitrary change of election rules and an upsurge in police violence during the pandemic.

5) Seclusion policies. The borders of some countries have become less open to international trade and capital flows. This has enabled domestic agents to suppress free competition by exerting political influence in opposing the building of strong institutions and developed financial markets.

Pandemics can create hothouse conditions when it comes to developing mistrust and oppressive institutions. The Black Death was the deadliest pandemic in human history. It is estimated to have killed between 30% and 60% of Europe's population. During the plague, desperate people, in the absence of any way to understand or manage the spread of the disease, sought scapegoats. The most common group that society of the time blamed was the Jews and suspected “witches” (mostly widows and old women) for poisoning water supplies. False confessions secured by torture further inflamed suspicions and intensified antisemitism and belief in witchcraft.

Established culture tends to be persistent. As many as one million individuals in Europe were executed for the crime of witchcraft between the 13th and 19th centuries (Oster, 2004). Belief in witchcraft remains a cultural phenomenon and a salient feature of daily life in many parts of the world today. Gershman (2016) finds that belief in witchcraft has an adverse impact on trust, as a result of the fear of bewitchment and the fear of being accused of witchcraft. The consequent depletion of trust reduces collaboration among locals and, in turn, hinders economic development.

The end of the Middle Ages brought little change in the position of Jews in Europe. They remained prey to prejudice and victims of all too frequent massacres. In Nazi Germany, antisemitism reached an unprecedented level. Grosfeld, Rodnyansky and Zhuravskaya (2013) find that antisemitism generates a persistent anti-market culture and lowers support both for the market economy and for democracy. Acemoglu, Hassan and Robinson (2011) show that antisemitism, as measured by the local severity of the Holocaust, is negatively associated with modern day district-level GDP per capita and average wages. Historical antisemitism is found to have a negative impact on current household financial development (D’Acunto, Prokopczuk and Weber, 2019) and reduced access to credit experience by firms (Lu, Hou and Brian, 2020).

These findings suggest that a hostile culture to development as shaped by historical pandemic tends to last for hundreds of years. Governments should, therefore, assess the cost to social capital and to institutions before implementing policy responses to the Covid-19 pandemic. It is difficult, if not impossible, to restore any consequent damaged trust or deteriorated institutions.

### **3. Explaining the pandemic severity**

Alfani and Murphy (2017) find that institutional factors matter in shaping the way in which a plague originates and spreads. Following in this spirit, we test which of the following can better explain the variation in the cross-country severity of Covid-19 pandemic: health care quality, social capital or institutions factors. To perform the analyses, we obtain daily Covid-19 data from the World Health Organization (WHO), the quality of health care systems from “numbeo.com”, institutional variables from the Economist Intelligence Unit and from Worldwide Governance Indicators, and cultural variables from the World Value Survey. We define variables and present the descriptive statistics in the Appendix. In the unbalanced firm-month panel data, we add a country to the active sample when it has its first case of coronavirus confirmed.

We first examine the relation between the pandemic severity in a country and the quality of the respective health care system. The results are presented in Table 1. The dependent variables include *Cases per 1000*, which is the average of confirmed COVID-19 cases per thousand people, and *Deaths per 1000*, which is the average of confirmed deaths

due to COVID-19 per thousand people. The explanatory variables in Column (1) include *Health Care Index*, measuring the quality of the health care system, and a range of economic development indicators, namely *GDP Growth*, *GDP per Capita*, *GDP*, and *Population Density*. The results in columns (1) and (5) show that the coefficient on the health care index is significantly negative. This is in line with a casual interpretation that overall quality of the health care system helps to prevent the spread of coronavirus. Health care and economic development explain 5.1% and 7.7% respectively of the variations in infection and in death rates.

[Insert Table 1 about here]

The methods put into effect to combat COVID-19 outbreaks include case isolation, contact tracing (Firth et al., 2020), social distancing, household quarantine, robust tests (Aleta et al., 2020) and lockdown (Ruktanonchai et al., 2020). Implementation of these measures, especially lock-down, is subject to the political and legal institutions of each country. In Columns (2) and (6), institutional variables are incorporated as explanatory variables. We find that democracy, common law, regulatory quality are each significantly related to the spread of the infection and the death rate. The explanatory power of the model increases slightly with the inclusion of these institutional variables, to 5.8% and 12.7% respectively. The signs on the estimated coefficients are mixed, presumably because governments have more discretions in imposing intrusive and drastic interventions. The discussion from the previous section suggests the warning that these approaches may be at the expense of long-run development.

Finally, we incorporated social capital as indicated by various measures of trust. The results in columns (3) and (7) show that general trust and trust in government are negatively associated with both spread of infection and death rates. These two types of trust underpin public attitudes and behaviors towards mutual support and adherence to public policies during the pandemic. By contrast, trust in foreigners is positively related to the rates. Presumably, this trust potentially increases social interactions. The explanation power of these models is 8.0% and 16.3%, respectively. Taken together, social capital has larger explanatory power in terms of the severity of the pandemic than institutions and health care quality. Finally, we incorporate all variables into the model and apply time fixed effects, the results of trust-related variables remain consistent (columns (4) and (8)).

## 4. Conclusion

This article discuss the under-researched impact of the Covid-19 pandemic on social capital and institutions by drawing from the experience of historical pandemics. We stress that when implementing policies to combat coronavirus, there might be unintended consequences such as mistrust, discrimination, xenophobia and abuse of government power. Such norms, if allowed to develop, tend to persist and undermine long-run economics development.

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**Table 1: COVID-19 and Health Care System**

This table reports the country-month level results from OLS estimates on the relation between COVID-19 and health care index. The dependent variable is the *Cases per 1000* in column (1)-(4), which is the monthly average of confirmed COVID-19 cases per thousand people in each country and *Deaths per 1000* in column (5)-(8) which is the monthly average of confirmed deaths due to COVID-19 per thousand people in each country. Our key interest variable is the quality of the health care system indicator *Health Care Index*, which is the index based on health care professionals, equipment, staff, doctors, cost, etc. based on survey data. Country level control variables include 1) Economic Controls: *GDP Growth*, *GDP per Capita*, *GDP*, and *Population Density*, 2) Institutional Environment: *Democracy Index*, *Legal Origin-UK*, *Regulatory Quality*, and *Control of Corruption*, 3) Trust measures: *Trust-General*, *Trust-Government*, and *Trust-Foreigner*. Monthly dummies are included to control for time specific information in column (4) and (8). Precise definitions of all variables are provided in Appendix A. t-statistics are in brackets. \*\*\*, \*\*, \* denote significance levels at 1%, 5% and 10% respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Cases per 1000				Deaths per 1000			
Health Care Index	-0.076*** [-2.971]			-0.005 [-0.154]	-0.001 [-1.352]			0.002 [1.599]
Democracy Index		-0.560*** [-2.795]		0.314 [1.601]		0.010** [1.983]		0.021*** [2.976]
Legal Origin-UK		-1.207** [-2.031]		-2.761*** [-4.358]		-0.085*** [-4.802]		-0.105*** [-4.427]
Regulatory Quality		-1.350*** [-3.131]		-0.616** [-2.001]		-0.036*** [-2.791]		-0.021* [-1.739]
Control of Corruption		0.614* [1.795]		0.240 [0.860]		0.020* [1.771]		-0.008 [-0.783]
Trust-General			-6.862*** [-4.035]	-7.187*** [-4.374]			-0.243*** [-5.031]	-0.254*** [-4.484]
Trust-Government			-2.018* [-1.664]	-2.589 [-1.635]			-0.156*** [-3.783]	-0.249*** [-4.518]
Trust-Foreigner			3.612** [2.295]	4.926*** [3.115]			0.222*** [3.787]	0.264*** [4.322]
GDP Growth	-0.044 [-0.851]	-0.044 [-0.704]	-0.097 [-1.083]	0.041 [0.516]	-0.000 [-0.115]	0.002 [0.915]	-0.001 [-0.428]	0.006** [1.972]
GDP per Capita	1.794*** [6.942]	0.956** [2.510]	0.719*** [2.767]	-0.278 [-0.531]	0.029*** [5.206]	0.005 [0.470]	0.016** [2.169]	-0.071*** [-4.001]
GDP	-0.082 [-0.537]	-0.154 [-0.869]	0.357** [2.138]	0.793*** [4.631]	0.025*** [5.923]	0.031*** [5.896]	0.036*** [7.148]	0.059*** [9.324]
Population Density	0.084 [0.463]	-0.242 [-1.264]	-0.628*** [-2.663]	-0.865*** [-4.241]	-0.006 [-1.264]	-0.006 [-1.163]	-0.007 [-0.960]	-0.019** [-2.396]
Monthly Dummies	No	No	No	Yes	No	No	No	Yes
Intercept	-5.908* [-1.676]	10.159 [1.513]	-8.617** [-2.059]	-12.093** [-1.991]	-0.714*** [-6.239]	-0.641*** [-4.139]	-0.927*** [-7.108]	-0.768*** [-3.276]
R-square	0.051	0.058	0.080	0.486	0.077	0.127	0.163	0.415
No. of Countries	90	68	66	51	90	68	66	51
Observations	884	676	650	509	884	676	650	509

## Appendix A: Variable Definition

Variable	Description
Cases per 1000	The monthly average confirmed COVID-19 cases per thousand people from the first case reported date in each country each month. Source: World Health Organization.
Deaths per 1000	The monthly average of confirmed deaths due to COVID-19 per thousand people from the first case reported date in each country each month. Source: World Health Organization.
Health Care Index	The health care system quality index based on health care professionals, equipment, staff, doctors, cost, etc. from the survey data. Source: <a href="https://www.numbeo.com/health-care/rankings_by_country.jsp">https://www.numbeo.com/health-care/rankings_by_country.jsp</a>
<b><i>Institutional Environment:</i></b>	
Democracy Index	An index that measures the state of democracy for each country in 2019 which includes four evaluations: “free and fair national elections”, “the security of voters”, “the influence of foreign powers on government”, and “the capability of the civil servants to implement policies”. Source: Economist Intelligence Unit.
Legal Origin-UK	A dummy variable that equals to one if the country adopts UK law and zero otherwise. Source: La Porta et al. (2008)
Regulatory Quality	An index that captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Source: Worldwide Governance Indicators, World Bank.
Control of Corruption	An index that captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Source: Worldwide Governance Indicators, World Bank.
Trust-General	The percentage of people who are more likely to trust others in general for each country. It asks, “generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?” to the respondents. Source: World Value Survey.
Trust-Government	The percentage of people who have more confident to their government for each country. It asks, “how much confidence you have in them, the government (in your nation’s capital)” to the respondents. Source: World Value Survey.
Trust-Foreigner	The percentage of people who are more likely to trust foreigners for each country. It asks “how much you trust people from various groups. Could you tell me for each whether you trust people from this group completely, somewhat, not very much or not at all? People of another nationality”. Source: World Value Survey.
<b><i>Economic Controls:</i></b>	
GDP Growth	The average of five-year GDP growth for each country from 2014-2019. Source: World Bank.
GDP per Capita	The natural logarithm of the average of five-year GDP per Capita for each country from 2014-2019. Source: World Bank.
GDP	The natural logarithm of the average of five-year GDP for each country from 2014-2019. Source: World Bank.
Population Density	The natural logarithm of the average of five-year Population Density for each country from 2014-2019. Source: World Bank.

## Appendix B: Country Coverage

Country	Average Deaths per 1000	Average Cases per 1000	Health Care Index	Legal Origin-UK	Control of Corruption	Regulatory Quality	Democracy Index	Trust- General	Trust- Government	Trust- Foreigner
Albania	0.068	2.555	51.33				5.89	0.025	0.147	0.449
Algeria	0.024	0.610	54.63				4.01			
Argentina	0.203	8.156	69.16	0	15	11	7.02	0.196	0.308	0.539
Australia	0.013	0.522	77.81	1	11	8	9.09	0.534	0.310	0.771
Austria	0.071	3.927	78.56	0	9	8	8.29	0.470	0.389	0.478
Azerbaijan	0.031	2.292	44.59				2.75	0.286	0.899	0.244
Bangladesh	0.017	1.227	43.08				5.88	0.129	0.812	0.298
Belarus	0.045	5.139	60.03				2.48	0.403	0.505	0.388
Belgium	0.679	10.123	74.8	0	10	8	7.64			
Bosnia and Herzegovina	0.137	4.807	53.22				4.86	0.095	0.177	0.516
Brazil	0.335	10.489	56.87	0	13	11	6.86	0.065	0.225	0.514
Bulgaria	0.069	2.337	56.2	0	14	12	7.03	0.176	0.206	0.429
Canada	0.157	2.590	71.77	1	11	8	9.22			
Chile	0.382	14.764	64.38	0	13	10	8.08	0.139	0.371	0.345
China	0.003	0.056	66.62	0	12	11	2.26	0.649	0.952	0.201
Colombia	0.249	8.092	66.8	0	15	11	7.13	0.045	0.119	0.340
Costa Rica	0.082	6.950	63.04	0	11	9	8.13			
Croatia	0.045	2.877	63.75	0	14	12	6.57	0.171	0.085	0.619
Cyprus	0.015	1.419	52.53				7.59	0.077	0.376	0.284
Czech Republic	0.086	7.067	75.18	0	13	10	7.69	0.218	0.174	0.435
Denmark	0.083	2.962	80.17	0	10	8	9.22	0.770	0.402	0.826
Dominican Republic	0.108	5.679	54.04				6.54			
Ecuador	0.327	4.358	69.51	0	13	10	6.33	0.058	0.318	0.209
Egypt	0.032	0.601	46.29	0	15	12	3.06	0.073	0.000	0.510
Estonia	0.037	1.687	72.52	0	13	11	7.9	0.334	0.417	0.516
Finland	0.040	1.177	75.96	0	10	8	9.25	0.709	0.445	0.765
France	0.324	4.974	80.68	0	9	8	8.12	0.277	0.315	0.648
Georgia	0.019	2.265	52.16				5.42	0.107	0.368	0.404
Germany	0.077	2.463	73.35	0	9	8	8.68	0.434	0.386	0.544
Greece	0.023	1.043	56.64	0	10	8	7.43	0.083	0.132	0.203

Guatemala	0.102	2.853	65.94					5.26	0.180	0.089	0.433
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Country	Average Deaths per 1000	Average Cases per 1000	Health Care Index	Legal Origin-UK	Control of Corruption	Regulatory Quality	Democracy Index	Trust- General	Trust- Government	Trust- Foreigner
Hungary	0.074	2.130	48.05	0	13	11	6.63	0.281	0.376	0.612
Iceland	0.027	6.208	65.61	0	8	7	9.58	0.647	0.321	0.845
India	0.028	1.726	66.21	1	14	11	6.9			
Indonesia	0.021	0.555	60.51	0	14	11	6.48	0.052	0.790	0.323
Iran	0.186	3.329	52.23				2.38	0.148	0.517	0.632
Iraq	0.112	4.205	44.74				3.74	0.110	0.193	0.408
Ireland	0.303	6.092	52.27	1	8	7	9.24			
Israel	0.094	11.586	73.4	1	9	7	7.86			
Italy	0.410	4.133	66.95	0	10	8	7.52	0.279	0.237	0.522
Japan	0.006	0.283	80.23	0	11	8	7.99	0.337	0.398	0.132
Jordan	0.019	1.798	65.46	0	12	12	3.93	0.159	0.362	0.516
Kazakhstan	0.054	4.119	60.94		14	12	2.94	0.228	0.686	0.385
Kenya	0.008	0.436	55.58	1	15	11	5.18			
Kuwait	0.088	13.704	58.14	0	7	7	3.93			
Latvia	0.016	1.006	62.14	0	12	10	7.49			
Lebanon	0.026	2.945	63.65	0	12	10	4.36	0.099	0.198	0.465
Lithuania	0.025	1.479	70.51	0	12	10	7.5	0.317	0.400	0.261
Malaysia	0.003	0.321	68.87	1	14	11	7.16	0.196	0.501	0.503
Malta	0.043	4.321	66.63	0	6	6	7.95			
Mexico	0.299	2.850	72.11	0	15	11	6.09	0.103	0.175	0.301
Morocco	0.032	1.871	46.32	0	14	12	5.1			
Nepal	0.008	1.420	57.44				5.28			
Netherlands	0.283	5.529	75.68	0	9	8	9.01	0.611	0.481	0.790
New Zealand	0.004	0.229	73.82	1	10	8	9.26	0.566	0.500	0.626
Nigeria	0.003	0.159	50.05	1	15	11	4.12	0.126	0.403	0.424
North Macedonia	0.188	5.065	56.22				5.97	0.143	0.246	0.493
Norway	0.037	1.836	74.51	0	10	8	9.87	0.742	0.612	0.833
Oman	0.097	11.476	58.83	0	7	7	3.06			
Pakistan	0.018	0.853	60.69	1	13	11	4.25	0.233	0.624	0.314

Panama	0.307	14.627	60.43				7.05			
Peru	0.531	13.410	56.45	0	15	11	6.6	0.053	0.109	0.212
Philippines	0.022	1.130	67.52	0	14	11	6.64	0.053	0.803	0.398

Country	Average Deaths per 1000	Average Cases per 1000	Health Care Index	Legal Origin-UK	Control of Corruption	Regulatory Quality	Democracy Index	Trust- General	Trust- Government	Trust- Foreigner
Poland	0.056	2.689	51.96	0	13	12	6.62	0.248	0.248	0.422
Portugal	0.147	5.594	71.88	0	10	8	8.03	0.167	0.367	0.584
Puerto Rico	0.095	6.207	55.57					0.177	0.149	0.613
Qatar	0.043	28.065	73.03				3.19			
Romania	0.129	3.647	55.46	0	14	12	6.49	0.124	0.190	0.277
Russia	0.070	4.260	58.01	0	13	12	3.11	0.230	0.525	0.368
Saudi Arabia	0.077	6.115	60.42	1	7	7	1.93			
Serbia	0.063	3.239	51.74				6.41	0.169	0.250	0.411
Singapore	0.003	5.718	70.97	1	11	9	6.02			
Slovakia	0.012	2.343	60.23				7.17	0.209	0.321	0.504
Slovenia	0.062	3.774	65.16	0	13	11	7.5	0.268	0.152	0.377
South Africa	0.143	6.157	64.16	1	16	12	7.24			
South Korea	0.005	0.261	82.26	0	12	9	8	0.329	0.513	0.259
Spain	0.532	9.197	78.69	0	10	8	8.29	0.405	0.225	0.601
Sri Lanka	0.000	0.134	72.44	1	13	11	6.27			
Sweden	0.407	6.118	69.15	0	9	8	9.39	0.662	0.525	0.858
Switzerland	0.170	6.106	73.1	0	9	7	9.03	0.601	0.670	0.740
Thailand	0.001	0.035	78.04	1	14	11	6.32	0.298	0.517	0.356
Trinidad and Tobago	0.024	1.235	53.8				7.16			
Tunisia	0.028	1.235	57.52	0	15	12	6.72	0.138	0.118	0.322
Turkey	0.069	2.669	70.36	0	14	13	4.09	0.140	0.688	0.328
Ukraine	0.055	2.759	52.69	0	14	12	5.9	0.299	0.189	0.396
United Arab Emirates	0.025	5.144	67.92	1	8	9	2.76			
United Kingdom	0.466	5.295	74.88	1	10	8	8.52	0.412	0.294	0.800
United States	0.333	10.445	69.2	1	12	8	7.96	0.396	0.306	0.726
Uruguay	0.009	0.401	67.36				8.38			
Venezuela	0.009	1.050	39.37	0	15	11	2.88			

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Vietnam	0.000	0.006	58.03	0	14	11	3.08	0.277	0.929	0.403
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**Table C: Descriptive Statistics**

	<b>Observations</b>	<b>Mean</b>	<b>S.D.</b>	<b>Min</b>	<b>Max</b>	<b>25</b>	<b>50</b>	<b>75</b>
Cases per 1000	893	4.203	7.235	0.000	52.238	0.126	1.149	5.021
Deaths per 1000	893	0.113	0.195	0.000	1.168	0.002	0.026	0.115
Health Care Index	895	63.758	9.992	39.370	86.420	56.200	65.160	72.110
Democracy Index	886	6.397	2.081	1.930	9.870	5.100	6.720	7.990
Legal Origin-UK	687	0.271	0.445	0.000	1.000	0.000	0.000	1.000
Regulatory Quality	696	9.672	1.800	6.000	13.000	8.000	10.000	11.000
Control of Corruption	696	11.796	2.442	6.000	16.000	10.000	12.000	14.000
Trust-General	650	0.275	0.195	0.025	0.770	0.126	0.228	0.396
Trust-Government	650	0.384	0.220	0.000	0.952	0.206	0.367	0.505
Trust-Foreigner	650	0.475	0.183	0.132	0.858	0.340	0.435	0.601
GDP Growth	885	3.001	3.469	-9.773	25.163	1.740	2.881	4.372
GDP per Capita	885	9.400	1.114	6.675	11.315	8.515	9.446	10.449
GDP	885	26.085	1.605	23.032	30.534	24.757	26.004	26.948
Population Density	894	4.486	1.328	1.131	8.963	3.821	4.543	5.345