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A Matter of Trust?
Political Trust and the Covid-19 Pandemic

Abstract

There is significant cross-country variation in Covid-19 fatalities worldwide. In this study, we analyze the relationship between political trust and fatalities of the Covid-19 pandemic. By performing a cross-country analysis and controlling for other determinants, we find that government trust is negatively associated with Covid-19 cases and deaths. Additionally, our findings suggest that risk communication, in the form of public information campaigns, only decreased Covid-19 cases and deaths in countries with high trust in government. We also find evidence that political trust decreases the risk of removing lockdown policies.

JEL-Codes: I120, I180.

Keywords: Covid-19, pandemic, trust, lockdown, cross-country regression, voluntary compliance.

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1. Introduction

> "*When the pandemic subsides, I suspect that we will have to discard simple dichotomies. […] The crucial determinant in performance will not be the type of regime, but the state's capacity and, above all, trust in government*."
>
> Francis Fukuyama (2020)

The significant heterogeneity across countries regarding their Covid-19 cases and deaths has raised interest in understanding the explanatory factors involved. The growing literature on determinants of Covid-19 fatalities refers to existing healthcare absorptive capacity (Farzanegan 2020), the degree of country globalization (Farzanegan et al. 2021a), international tourism (Farzanegan et al. 2021b; Stojkoski et al. 2020), demographic structure, and population density (Madrazo Cabo et al. 2020; Jani and Mavalankar 2020), stage of economic development and share of the shadow economy (Stojkoski et al. 2020), quality of formal institutions (Cepaluni et al. 2020; Rodríguez-Pose and Burlina 2020), income inequality (Wildman 2021) and rates of obesity and air quality (Bretschger et al. 2020) as the significant predicting factors. Part of this literature examines the role of informal institutions on the number of Covid-19 fatalities across countries, for example, the role of cultural dimensions is investigated by Huynh (2020a).

While there are frequent references in the media to the relevance of public trust in the government in successfully implementing controls and restrictions on Covid-19, a systematic cross-country analysis is missing. We aim to investigate the relationship between political trust and Covid-19 fatalities, adjusting for the effect of other identified determinants.

Furthermore, we examine how different degrees of trust in the government across countries can influence the effect of public information campaigns on Covid-19 cases and deaths. Using multiple regression estimations for 76 countries over the period from 01.01.2020-31.01.2020, we show that the cross-country variation of trust in the government plays an important direct and indirect role in predicting cross-country differences in Covid-19 fatalities.

Figures 1 and 2 illustrate the overall association between the averages of Covid-19 cases and deaths and trust in the government index in our sample. The association shows that countries with higher levels of trust in government recorded (based on World Value Survey data), on average, have lower levels of both confirmed cases and deaths from Covid-19. However, since there are other important factors behind the variation in fatalities, we need to address the trust-Covid-19 nexus using a multivariate approach.

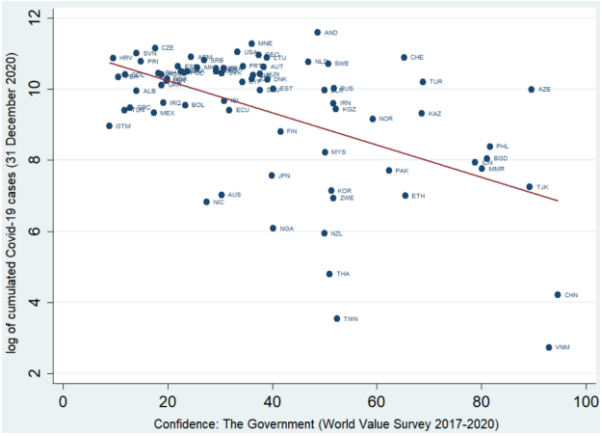

Figure 1: Scatterplot of the association between the log of Covid-19 confirmed cases per million and the share of people with high and medium confidence in government values for a country with line of best fit. Correlation -0.53.

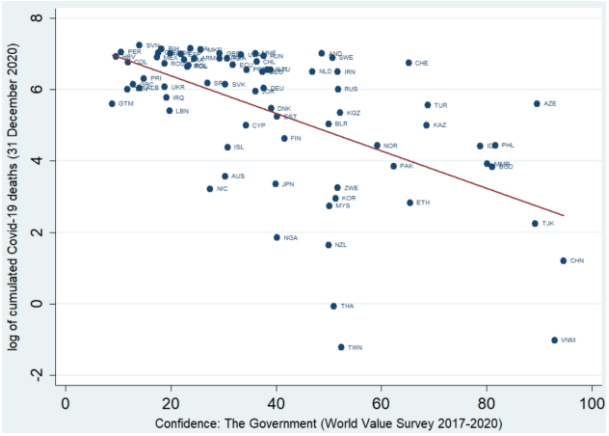

Figure 2: Scatterplot of the association between the log of Covid-19 deaths per million and the share of people with high and medium confidence in the government values for a country with line of best fit. Correlation -0.58.

In March 2020, Francis Fukuyama predicted that the Coronavirus pandemic would highlight the relationship between citizens and their government, especially regarding trust. In our sample, China and Vietnam show relatively low numbers of cumulated Covid-19 cases and deaths. Their governments (China 94.6%; Vietnam 92.9%) have strong approval ratings.[1] The Chinese authorities' response to the Covid-19 pandemic was based on social distancing measures, contact tracing, and broad involvement of all society sectors (Liu et al. 2020). Civil society organizations directly contributed to the containment policies by managing and observing community members' isolation (Zhang et al. 2020). Vietnamese authorities also implemented strict social distancing policies and stringent contact tracing (Nguyen et al. 2020). However, the state relied on mobile phone messages to inform the public about the urgency of containment measures, such as hand-washing, self-quarantine, and mask-wearing (Huynh 2020b). Six billion messages were sent to citizens by mid-April 2020 (Huynh 2020b). Another positive example is New Zealand, with 50% of the respondents expressing confidence in the government. Bloomberg has ranked the country a "top performer" in its handling of Covid-19 (Bloomberg 2020).

[1] This is based on data from World Value Survey, Wave 7, 2017-2020 and is the share of respondents who replied: *a great deal of confidence* or *quite a lot of confidence* in the government.

On the other end of the scale, we observe mostly European and South American countries in our sample. Slovenia has traditionally low levels of trust in institutions (Hafner-Fink and Uhan 2020). According to the World Value Survey data, only 14.1% of the Slovenian respondents expressed medium or high confidence in the government, whereas the country detected 60,482 total confirmed Covid-19 cases per million in 2020. In contrast, Vietnam observed a total of 15 confirmed cases per million in 2020. With 17.6% confidence in the government, the Czech Republic had to implement a state of emergency in December 2020, marking 70,115 confirmed total cases per million and 12,070 total deaths for 2020 (Reuters 2021).[2]

To the best of our knowledge, only one other extensive study analyzes cross-country differences in the impact of political trust on Covid-19 fatalities. Elgar et al. (2020) focused on income inequality, social trust, group affiliations, civic responsibility, and trust in public institutions in 84 countries. They used panel data of Covid-19 confirmed deaths of a 30-day period after a country recorded its 10th death. Their results suggest that mortality is positively related to income inequality, social trust, and group affiliations while negatively related to civic engagement and trust in state institutions. In our study, we also aim to find a nexus between trust in government and Covid-19 mortality. However, our study differs from Elgar et al. (2020) in several ways.

Firstly, Elgar et al. (2020) only take Covid-19 deaths as the dependent variable. We use confirmed Covid-19 cases as a second dependent variable. Behavioral changes are expected to be observable due to better compliance with containment measures, leading to reduced confirmed cases and only in the next step to a reduction in Covid-19 associated deaths. If trust in government is negatively associated with the intensity of cases, the scientific landscape receives important evidence in understanding the nexus between political trust and Covid-19 mortality.

Secondly, we aim to find a nexus between public information campaigns and political trust. Does political trust moderate the effect of crisis communication on Covid-19 cases and deaths? If a positive effect of crisis communication depends on political trust, we would be able to show how political trust becomes influential in the pandemic response.

Thirdly, we analyze the nexus between political trust and Oxford's Risk of Openness Index. This index measures a country's risk if it would remove all social distancing measures (Hale et al. 2020a). If political trust is negatively associated with Covid-19 cases and deaths, we would be able to show that political trust reduces the risk to open up countries from lockdowns.

Apart from political trust, countries in our sample also show a wide range of differences in their quality of formal institutions and socio-economic characteristics. Only after adjusting for such

[2] All Data for Covid-19 confirmed cases and deaths are obtained from ECDC (2021b).

differences would we be able to present public trust in the government as an empirically relevant predictor of Covid-19 fatalities.

The following section provides a literature review on the role of trust during crises. The third section presents our data, hypotheses, and methodology. The results are presented and discussed in Section 4. Finally, Section 5 concludes.

2. Review of literature on the role of political trust

Scholars in political science argue that trust in political authorities is essential for the functioning of political systems (Norris 2017; Hetherington 1998; Levi and Stoker 2000). In economic research, trust as an informal institution is argued to be an important driver for human behavior and consequently, economic performance (Pitlik and Rode 2017; Rompf et al. 2017; Lekovic 2012).

David Easton (1975) developed a theorem for the relationship between governments and the governed. He distinguishes between specific and diffuse political support. Diffuse support is generated through long-term performance. It is a general attitude towards the political system and refers to the symbolic understanding of an object. Specific support is directly related to the political authorities. Easton (1975) defines trust as the belief that the political system produces preferred outcomes for citizens even if it were to be left untended. A trusting relationship between the public and the authorities leads to public compliance with decisions and laws, whereas compliance refers to "[…] the likelihood that members of a system will conform with decisions made by the political authorities and with the rules of the regime." (Easton 1975).

Various studies empirically support the general theoretical assumption that political trust influences public response to government recommendations and law compliance (e.g., Chanley et al. 2000; Lindström 2008; Marien and Hooghe 2011; Scholz and Lubell 1998).

Research by Basolo et al. (2009) studied the relationship between governments and citizens with regards to trust and how it impacted human behavior during crises, such as natural disasters. The researchers conducted a cross-sectional study of perceived and actual household preparedness for natural disasters. A quantitative telephone survey conducted in Los Angeles (182 interviews) and New Orleans (222 interviews) found that high confidence levels in the local government to handle a natural disaster were positively associated with perceived disaster preparedness. Choi and Wehde (2020) surveyed 3,976 participants in the United States. In a quantitative analysis, they attempted to link individual emergency preparedness to trust in local authorities. They found that higher trust levels partly explained increased preparation for a crisis. On the contrary, Han et al. (2017) found that higher government trust levels in China were associated with lower preparedness levels. Their quantitative sample of 501 questionnaires revealed that individuals with lower political trust levels tend to prepare less.

Political trust as an explanatory variable for public behavior during health crises has been proven to be an important factor since the swine flu pandemic (H1N1). Van der Weerd et al. (2011) conducted 8060 quantitative interviews in the Netherlands and found that trust in the Dutch government decreased as the H1N1 pandemic progressed. Additionally, they found a positive association between political trust and the public's will to take protective measures. Political trust was further positively associated with vaccine acceptance. Based on a representative sample of 1555 individuals in Liberia, Blair et al. (2016) observed that low levels of government trust led to a lower acceptance of precautions against the Ebola Virus Disease, such as social distancing measures. Vinck et al. (2019) surveyed 961 individuals regarding their institutional trust, belief in misinformation, and attitudes towards Ebola vaccines and disease-controlling measures in DR Congo. Their quantitative study results show how low institutional trust and the belief in misinformation were driving factors for a decreased will to take preventive measures and a decrease in vaccine acceptance.

Regarding trust and human behavior during the ongoing Covid-19 crisis, Goldstein and Wiedermann (2020) analyzed county-level human mobility data between January and April 2020 in the United States. They aimed to find a causal effect of stay-at-home orders on public behavior. The analysis shows that different social and political trust levels can explain the variety in public obedience to governmental regulations. Bargain and Aminjonov (2020) also used mobility data to measure compliance to lockdown policies for a 50-day period starting in the middle of February 2020. Having analyzed 233 European regions in 19 countries, they found political trust to be a significant explanatory factor for compliance with lockdown policies.

In a report on global risk communication and community engagement strategy, the World Health Organization (2020b) persistently stressed the importance of political trust as a crucial determinant for successful risk communication during the Covid-19 pandemic. Therefore, the second aspect of our paper focuses on political trust and risk communication.

The effect of risk communication on public behavior during crises has been empirically studied by Jin et al. (2020). Based on a quantitative survey conducted in two waves with a sample size of 788 in wave one and 318 participants in wave two, the researchers analyzed the relationship between psychological responses and the appraisal of risk communication for the Covid-19 pandemic in China. A higher evaluation of risk communication from health authorities was associated with the adoption of preventive behaviors. Takian et al. (2020) conducted a cross-sectional survey with 3213 respondents in Iran. Analyzing the impact risk communication has had on protective behavior during the Covid-19 pandemic, they found that risk communication was positively associated with protective behavior.

The impact political trust has on the effectiveness of crisis communication has been analyzed by Lim et al. (2020). The researchers conducted 2857 interviews with 633 respondents over three months, surveying in seven intervals during the ongoing Covid-19 pandemic in Singapore. They focused on the effect political trust had on compliance with government recommendations. Trust in communication was significantly associated with a higher intent to adopt protective behavior. The governmental recommendation to universally wear facemasks correlated with a substantial rise in facemask utilization. Lazarus et al. (2021) focused on Covid-19 risk communication, political trust, and vaccine acceptance. Their study is based on 13,426 surveys conducted in 19 countries. Respondents with higher levels of trust in information from their government were more in favor of vaccine acceptance.

This literature review gave us theoretical and empirical grounds to assume that differing levels of human behavior impacted by political trust might partly explain the cross-country variation in Covid-19 fatalities. Political communication has also been shown to be a predictor for public collaboration in times of crisis. Trust in authorities can function as a catalyst to improve the effectiveness of risk communication on public behavior.

3. Empirical research design

The following section focuses on our main analysis, the nexus between Covid-19 cases and deaths and confidence in the government.

3.1. Data, specification, and empirical strategy

Based on the theoretical framework presented in the literature review, we expect political trust to influence public behavior during the Covid-19 crisis. Most studies, except Han et al. (2017) and Terpstra (2011) found that political trust positively affects public behavior during crises. Therefore, with the premise that all governments share the goal of containing the virus, we expect trust to be negatively associated with Covid-19 cases and deaths.

Our main hypothesis is as follows:

Hypothesis 1: Countries with higher confidence in government values are associated with lower Covid-19 cases and deaths per million, *ceteris paribus*.

We test this hypothesis by using cross-country regressions for more than 70 countries. To estimate whether political trust affects Covid-19 cases and death, we use the following specification:

$$Covid19\ cases\ or\ deaths_i = cons + \beta_1 * Confidence\ in\ Government_i + \beta_2 * Controls_i + \varepsilon_i \quad (1)$$

The subscript *i* refers to country *i*, for which there are 72 countries in our final model. We also control for a range of other variables. According to our expectations, β_1 should be negative.

The ordinary least squares estimation method with robust standard errors is being applied to test all hypotheses.

3.2. Dependent variables: Covid-19 cases and deaths

We use confirmed Covid-19 cases and deaths per million in their logarithmic transformations as the dependent variables. The analyzed timeframe is 2020 (01.01.2020-31.12.2020). Data is obtained from the European Centre for Disease Prevention and Control.[3] The ECDC (2021a) is an official agency of the European Union, which aims to defend against infectious diseases. The data is updated regularly and based on official governmental information and other available sources.

3.3. Independent variables

Confidence in government

The central explanatory variable, confidence in government, is based on the theoretical framework of political support by Easton (1975), introduced in the literature review. We focus on specific support as a measure for the relationship between governments and the governed. Pippa Norris, a member of the executive committee of the World Value Survey Association, further developed Easton's theory. She defines confidence in regime institutions and approval of incumbent office-holders as the most specific types of support (Norris 2017). This is being expressed in the World Value Survey question (Haerpfer et al. 2020):

> I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?

We take the values from Wave 7 of the World Value Survey, conducted between 2017 and 2020, in percentages of respondents who replied with *a great deal of confidence* and *quite a lot of confidence* in their government.

In addition to our main variable of interest, we also need to control for other possible determinants of Covid-19 cases and deaths. Below, we explain these control variables.

[3]https://www.ecdc.europa.eu/en/covid-19

Age structure

Several studies find strong evidence that the Covid-19 mortality rate is age-dependent (e.g., Kremer and Thurner 2020; Amdaoud et al. 2021). Farzanegan (2020) conducted a cross-country analysis in more than 140 countries on aging societies, Covid-19 mortality, and healthcare absorptive capacity. He finds the share of older adults to be positively associated with Covid-19 cumulated deaths. We use averaged values for the share of population beyond 65 years of age in the total population between 2010 - 2019, obtained from the WDI (2020).

Income per capita

The resources a country can spend on the pandemic response, such as economic compensation during lockdowns and the tracking of cases, are limited and depend on income. Pardhan and Drydakis (2020) find some evidence of a negative association between new Covid-19 cases and GDP for European countries in the first wave of the pandemic in spring 2020. We use the log of GDP per capita (constant 2010 US$) as averaged values between 2010 - 2019. Data is obtained from the WDI (2020).

Health care system capacity

Stojkoski et al. (2020) find that health system capacity reduces Covid-19 fatalities. They argue that it can additionally indicate a country`s capacity to identify the infected and limit the virus's spread. This variable was also used by other studies such as Farzanegan (2020). We use the logarithmic transformation of the number of hospital beds per 1000 people as averaged values between 2010 - 2019, obtained from the WDI (2020).

Population density

Covid-19 is an infectious viral disease transmitted from person to person via respiratory droplets (ECDC 2021b). The need for physical distancing is the consequential response. A higher population density might therefore lead to a lower opportunity to keep the physical distance. Indeed, studies find an association between population density and the spread of Covid-19 (e.g., Bhadra et al. 2020; Wong and Li 2020). We use the log of averaged population density (people per sq. km of land area) values between 2010 - 2019. The data is drawn from the WDI (2020).

Out-of-pocket expenditure on health

Out-of-pocket spending on health is a socio-economic variable defined as household expenditure on health directly out of pocket. Higher country-averaged out-of-pocket spending on health may indicate lower medical insurance capacity and a higher burden on households. El-Khatib et al. (2020) find a positive association of Covid-19 mortality with out-of-pocket expenditure. We use the log of out-of-pocket expenditure on health as averaged values between 2010 - 2019, obtained from the WDI (2020).

Obesity

Bretschger et al. (2020) find that obesity can partly explain the cross-country variance in Covid-19 cases and deaths. A recent study by O'Hearn et al. (2021) discovers that a significant portion of US Covid-19 hospitalizations is related to major cardiometabolic conditions, including obesity. Therefore, we also include data for the share of premature deaths attributed to high body mass index as a control variable. We use data for the year 2017, the latest year available, obtained from the Global Burden of Disease Collaborative Network (2018).

Regional differences

We also include dummy variables for the continents Africa, Asia, Europe, and the Americas. We use the continent dummy Oceania as the reference category. The inclusion of continental dummies may reduce the risk of omitted variable bias because of regional characteristics, which may also correlate with Covid-19 fatalities and some of its determinants such as income or health capacity.

Table 1 presents the summary statistics of all included variables.

Table 1. Summary Statistics

Variable	Observations	Mean	Standard Deviation	Min	Max	Quartile 1	Quartile 3	Source
Log of Covid-19 confirmed cases (per million), cumulated 2020	72	9.421	1.724	2.733	11.279	8.881	10.537	a)
Log of Covid-19 deaths (per million), cumulated 2020	72	5.446	1.813	-1.023	7.229	4.432	6.848	a)
Confidence in the government (%)	72	39.892	22.315	8.9	94.6	22.8	51.5	c)
Population ages 65 and above (% of total population), average 2010-2019	72	12.265	5.955	2.943	25.481	6.647	17.696	d)
Log of GDP per capita (constant 2010 US$), average 2010-2019	72	9.187	1.253	6.15	11.405	8.392	10.228	d)
Log of total number of hospital beds (per 1000), average 2010-2019	72	1.155	0.724	-0.619	2.583	0.749	1.66	d)
Log of population density, average 2010-2019	72	4.286	1.128	1.117	7.079	3.792	4.861	d)
Log of out-of-pocket spending on health (PPP, per capita, US$), average 2010-2019	72	5.839	0.803	3.152	7.497	5.327	6.481	d)
Share of deaths from obesity, 2017	72	11.672	3.894	2.01	19.66	9.025	15.02	e)
Public Information Campaigns, daily average 2020	69	1.702	0.215	0.721	1.951	1.65	1.847	b)
Log of openness risk, daily average 2020	69	-0.668	0.319	-1.894	-0.24	-0.729	-0.46	b)

Sources: a) ECDC (2021b); b) Hale et al. (2020b); c) Haerpfer et al. (2020); d) WDI (2020); e) Global Burden of Disease Collaborative Network (2018).

4. Results

The following section shows and describes the multivariate regression equations results for our three hypotheses.

4.1. Political trust and Covid-19 cases and deaths

Table 2 shows the estimation results for the logarithmic form of cumulated Covid-19 cases per million as the dependent variable and the share of people with high and medium trust in government values as the explanatory variable. All models include continent dummy variables to test for regional differences. Our results show a robust significant negative association between trust in government and cumulated Covid-19 cases. We examine the robustness of the negative association between trust in the government and confirmed cases of Covid-19 diseases by including other discussed control variables in Models 2-7. Model 8 includes all control variables and shows the net effect of trust on Covid-19 confirmed cases after considering the effects of other variables. The sign and statistical significance of trust in government remain robust.

Effect sizes are presented in interquartile ranges (IQR) to make the impact of the significant variables comparable. Model 8 shows that a 28.7 (IQR)[4] percentage points increase in the share of people with high and medium trust in government (i.e., shifting from low levels of trust in government to high trust levels) is associated with a 66.1% decrease in cumulated Covid-19 cases.[5] The explanatory power of our models also increased from 60% in Model 1 to 70% in Model 8. Among the control variables, we can only observe a significant and robust positive association from the share of deaths from obesity and Covid-19 confirmed cases. An increase in 6 (IQR) percentage points in deaths from obesity is associated with a 65.04% increase in Covid-19 cases. This finding is in line with several other studies on the nexus between obesity and the risk of Covid-19 infection and mortality (e.g., Bello-Chavolla et al. 2020; Gao et al. 2020; Ho et al. 2020; Lusignan et al. 2020). Popkin et al. (2020) conducted a pooled analysis of 75 studies and found that the risk of obese people contracting Covid-19 is 46% higher. They also observe a 48% rise in the deaths caused by Covid-19.

The association between political trust and Covid-19 deaths is shown in Table 3. Again, we control for continent dummies in all models. The results show that trust in government is negatively associated with the logarithmic form of Covid-19 deaths. These results are robust if we include the control variables as in Model 8. An increase in 28.7 (IQR) percentage points in government trust is associated with a 71.14% decrease in Covid-19 deaths. The share of deaths from obesity is positively associated with Covid-19 deaths. A 6 (IQR) percentage points

[4] Interquartile range (IQR) = Q3 − Q1

[5] All effects for Table 2 & 3 are calculated as follows: $((e^{\beta_x} - 1) * 100) * IQR$

increase in the share of deaths caused by obesity is associated with an average increase of 66.37% in the Covid-19 deaths. In both tables, the negative effect of confidence in the government on Covid-19 cases and deaths is stronger than the positive effect of obesity.

Table 2. Regression results with the log of Covid-19 confirmed cases per million as the dependent variable.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	log of cumulated Covid-19 cases per million (by December 31, 2020)							
Confidence in the government	-0.0260*** (-2.667)	-0.0309*** (-3.110)	-0.0270*** (-2.819)	-0.0285*** (-2.914)	-0.0280*** (-2.833)	-0.0256*** (-2.661)	-0.0181** (-2.276)	-0.0233** (-2.637)
Share of population beyond 65 years of age in total population		-0.0410 (-1.299)						-0.0670 (-1.556)
log of GDP per capita (constant 2010 US$)			0.125 (0.928)					0.194 (0.871)
log of hospital beds per 1,000 population				-0.0193 (-0.0919)				-0.131 (-0.520)
log of population density					-0.103 (-0.754)			-0.00889 (-0.0658)
log of out-of-pocket spending on health (PPP, US$ per capita)						0.365 (1.594)		0.406 (1.191)
Share of deaths from obesity							0.123*** (3.957)	0.103** (2.450)
Africa dummy	0.931* (1.758)	0.518 (0.832)	1.353* (1.881)	1.372*** (3.416)	1.183** (2.066)	1.632** (2.298)	1.563*** (4.084)	2.591*** (3.385)
Asia dummy	1.619*** (3.104)	1.654*** (3.532)	2.175*** (3.909)	1.901*** (4.163)	2.198*** (3.797)	2.252*** (5.066)	1.631*** (3.443)	2.341*** (3.744)
America dummy	2.892*** (6.510)	2.562*** (4.940)	3.089*** (7.315)	2.767*** (5.714)	3.038*** (7.082)	3.071*** (7.644)	2.912*** (6.430)	2.921*** (5.886)
Europe dummy	3.799*** (15.55)	3.805*** (17.50)	3.908*** (14.97)	3.752*** (15.41)	4.032*** (11.04)	3.864*** (20.16)	3.673*** (13.20)	4.065*** (8.918)
Constant	7.520*** (16.94)	8.315*** (10.91)	6.223*** (4.240)	7.643*** (13.67)	7.805*** (13.73)	5.171*** (3.337)	5.817*** (11.52)	2.719 (1.549)
N	76	74	75	72	75	74	76	72
R-squared	0.593	0.626	0.620	0.609	0.619	0.630	0.644	0.700

Note: Robust *t* statistics are in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively. Control variables (except for regional dummies & share of deaths from obesity) are average values between 2010 and 2019. Data for share of deaths from obesity is for the year 2017.

Table 3. Regression results with the log of Covid-19 deaths per million as the dependent variable.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	log of cumulated Covid-19 deaths per million (by December 31, 2020)							
Confidence in the government	-0.0302*** (-3.514)	-0.0348*** (-4.042)	-0.0319*** (-3.828)	-0.0334*** (-3.986)	-0.0323*** (-3.721)	-0.0305*** (-3.652)	-0.0233*** (-3.132)	-0.0251*** (-2.975)
Share of population beyond 65 years of age in total population		-0.0359 (-1.176)						-0.00390 (-0.0726)
log of GDP per capita (constant 2010 US$)			0.0245 (0.176)					-0.0863 (-0.338)
log of hospital beds per 1,000 population				-0.145 (-0.673)				-0.370 (-1.369)
log of population density					-0.0737 (-0.455)			0.0200 (0.116)
log of out-of-pocket spending on health (PPP, US$ per capita)						0.345 (1.288)		0.614 (1.446)
Share of deaths from obesity							0.108*** (3.204)	0.105** (2.207)
Africa dummy	0.937 (1.194)	0.575 (0.686)	1.023 (1.074)	1.444** (2.233)	1.118 (1.375)	1.600* (1.672)	1.495** (2.244)	2.624*** (2.978)
Asia dummy	1.408* (1.964)	1.509** (2.277)	1.773** (2.381)	1.696** (2.592)	1.940** (2.387)	2.069*** (3.306)	1.419** (2.011)	1.978** (2.138)
America dummy	3.236*** (5.298)	2.941*** (4.791)	3.247*** (5.510)	3.106*** (4.886)	3.328*** (5.572)	3.485*** (6.390)	3.254*** (5.123)	3.224*** (4.907)
Europe dummy	3.531*** (6.915)	3.541*** (7.255)	3.545*** (6.783)	3.539*** (6.821)	3.695*** (6.028)	3.589*** (8.054)	3.420*** (6.304)	3.498*** (4.598)
Constant	3.823*** (6.369)	4.530*** (5.650)	3.629** (2.322)	4.119*** (6.092)	4.055*** (5.780)	1.629 (0.891)	2.317*** (3.225)	-0.127 (-0.0699)
N	76	74	75	72	75	74	76	72
R-squared	0.583	0.617	0.611	0.609	0.612	0.623	0.619	0.678

Note: Robust *t* statistics are in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively. Control variables (except for regional dummies & share of deaths from obesity) are average values between 2010 and 2019. Data for share of deaths from obesity is for the year 2017.

4.2. The effect of crisis communication on Covid-19 cases and deaths: trust matters

Now that we have shown that political trust is indeed a substantial explanatory variable for the variation in Covid-19 cases and deaths, the second part of this study aims to understand the channels through which trust may affect Covid-19 fatalities. We first focus on the role of trust in the effectiveness of crisis communication.

As presented in the literature review, the World Health Organization (2020a) sees a relationship between crisis communication and political trust. Does political trust influence the public response to governmental crisis communication, which in turn reduces the Covid-19 cases and deaths? We focus on the intensity of public information campaigns as a form of crisis communication. The Vietnamese example already showed us a country that extensively used crisis communication and effectively limited the virus's spread.

Hypothesis 2: The final negative effect of the Public Information Campaigns Index on Covid-19 cases and deaths depends on political trust. The Public Information Campaigns Index is only negatively associated with Covid-19 cases and deaths in countries with high political trust levels, *ceteris paribus*.

The explanatory variable, public information campaigns, documents the quantity and quality of crisis communication in a country. We took the averaged daily values for the whole year 2020. The ordinal scale ranges from (Hale et al. 2020b):

0 = no Covid-19 public information campaign
1 = public officials urging caution about Covid-19
2 = coordinated public information campaign

To analyze a possible moderation effect, we constructed an interaction term based on the Public Information Campaigns Index multiplied by government confidence values, in percentages as introduced in section 3.3. The dependent variables are the logarithmic transformations of confirmed Covid-19 cases and deaths per million. We also control for age structure, income per capita, health care system capacity, population density, out-of-pocket expenditure on health, and the share of deaths from obesity. The control variables are the same as in the two previous models since our aim is still to explain the heterogeneity in the cross-country variation of Covid-19 cases and deaths.

The baseline model for our second hypothesis is:

$$Covid19\ cases\ or\ deaths_i = cons + \beta_1 * Public\ Information\ Campaigns_i + \beta_2 * Confidence\ in\ Government\ Dummy_i + \beta_3 * (Public\ Information\ Campaigns_i * Confidence\ in\ Government_i) + \beta_4 * Controls_i + \varepsilon_i \quad (2)$$

The sign of the interaction term is expected to be negative ($\beta_3 < 0$). More trust in the government should be associated with increasing voluntary compliance with crisis communication content and is therefore expected to be associated with decreased Covid-19 fatalities.

Tables 4 and 5 show the regression outputs for our second hypothesis on the negative association between public information campaigns and Covid-19 cases and deaths moderated by confidence in the government. In Table 4, the effect of the public information campaigns Index moderated by trust on Covid-19 cases is shown at different levels of trust. The model's explanatory power rises from 53.8% without control variables to 76.2%, including all control variables. Table 5 shows the effect of the interaction term on Covid-19 deaths. Here, the explanatory power increases from 51.3% to 71.9% after adding all control variables. The interaction term between the Public Information Campaigns Index and confidence in the government is significant in all models. Therefore, the Public Information Campaigns Index's marginal effects on Covid-19 cases and deaths depend on political trust. To calculate the marginal effects of public information campaigns at different levels of confidence in the government, we use the following derivative:

$$\frac{\partial(logCovid19\ cases\ or\ deaths_i)}{\partial(Public\ Information\ campaigns_i)} = \beta_1 + \beta_3 * (Confidence\ in\ government_i) \quad (3)$$

Figures 3 and 4 show the average marginal effects of the Public Information Campaigns Index on Covid-19 cases and deaths at different levels of trust in the government with 95% confidence interval. Public information campaigns successfully reduce Covid-19 cases and deaths when the government's critical level of trust exceeds 47%. Below this threshold level, the public information campaigns are less likely to influence Covid-19 fatalities negatively.

There are 27 countries in the dataset that can be categorized as countries where crisis communication was negatively associated with cumulated Covid-19 deaths for the year 2020. A list of these countries can be found in the Appendix. Our second hypothesis of a negative association between public information campaigns and Covid-19 fatalities moderated by trust cannot be rejected. But how can we explain the positive association between public information campaigns and Covid-19 cases and deaths at lower levels of trust?

Crisis communication during a pandemic is a relatively low-cost policy tool compared to lockdowns, which can cause massive damage to national economies. A public statement from an official on television to keep the recommended measures or a social media ad sponsored by the government, urging the public to keep social distance, can be quickly made. Governments in countries with high Covid-19 fatalities in 2020 might have implemented high levels of information campaigns, hoping for a cost-effective way to reduce damage. However, even the best information broadcasted in the highest quantity will not have a positive impact if citizens do not

believe the source of information. A high quantity of recommendations only unfolds its potential if the society trusts the government.

Table 4. Regression results with the log of Covid-19 cumulated cases per million as the dependent variable and averaged Public Information Campaigns as the explanatory variable.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	log of cumulated Covid-19 cases per million (by December 31, 2020)								
Public information campaigns	-1.069	5.570**	5.894**	5.482**	6.426**	5.848**	5.753**	6.988***	8.102***
	(-1.285)	(2.070)	(2.155)	(2.173)	(2.464)	(2.181)	(2.340)	(2.768)	(3.274)
Confidence in government		0.227**	0.217**	0.217**	0.239**	0.227**	0.225**	0.265***	0.289***
		(2.350)	(2.235)	(2.357)	(2.581)	(2.349)	(2.489)	(2.973)	(3.321)
Public information campaigns * Confidence in the government		-0.144**	-0.140**	-0.139**	-0.152***	-0.145**	-0.142***	-0.161***	-0.175***
		(-2.578)	(-2.501)	(-2.586)	(-2.813)	(-2.587)	(-2.691)	(-3.098)	(-3.489)
Share of population beyond 65 years of age in total population			-0.0335						-0.0292
			(-1.062)						(-0.709)
log of GDP per capita (constant 2010 US$)				0.150					0.145
				(1.197)					(0.572)
log of hospital beds per 1,000 population					-0.167				-0.366
					(-0.824)				(-1.478)
log of population density						0.0246			0.104
						(0.213)			(0.856)
log of out-of-pocket spending on health (PPP, US$ per capita)							0.333		0.391
							(1.427)		(0.889)
Share of deaths from obesity								0.126***	0.140***
								(3.867)	(3.443)
Africa dummy	0.677	0.843	0.596	1.378*	1.319**	0.834	1.530*	1.624***	2.731***
	(0.914)	(1.369)	(0.826)	(1.742)	(2.038)	(1.199)	(1.843)	(3.469)	(4.060)
Asia dummy	0.922	1.676***	1.809***	2.288***	1.977***	1.893***	2.296***	1.807***	2.296***
	(1.386)	(3.384)	(4.039)	(4.299)	(4.772)	(3.661)	(5.433)	(4.008)	(3.925)
America dummy	3.142***	2.998***	2.821***	3.270***	2.876***	2.983***	3.193***	3.191***	3.167***
	(6.043)	(9.215)	(6.594)	(9.858)	(7.532)	(8.489)	(10.04)	(12.01)	(7.714)
Europe dummy	3.691***	3.616***	3.731***	3.767***	3.737***	3.600***	3.729***	3.640***	3.810***
	(8.583)	(19.58)	(20.92)	(19.18)	(19.68)	(10.82)	(21.98)	(19.28)	(9.998)
Constant	8.484***	-2.223	-2.203	-3.675	-3.515	-2.741	-4.724	-6.561	-12.12**
	(5.269)	(-0.469)	(-0.452)	(-0.765)	(-0.772)	(-0.578)	(-1.025)	(-1.441)	(-2.356)
N	73	73	71	72	69	72	71	73	69
R-squared	0.538	0.647	0.672	0.676	0.666	0.670	0.684	0.695	0.762

Note: Robust *t* statistics are in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively. Control variables (except for regional dummies & share of deaths from obesity) are average values between 2010 and 2019. Data for share of deaths from obesity is for the year 2017. Values for log of Public Information Campaigns are averaged daily values for the year 2020.

Table 5. Regression results with the log of cumulated Covid-19 deaths per million as the dependent variable and averaged Public Information Campaigns as the explanatory variable.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	log of cumulated Covid-19 deaths per million (by December 31, 2020)								
Public information campaigns	-0.970 (-0.882)	4.184 (1.420)	4.510 (1.551)	4.318 (1.577)	5.117* (1.806)	4.510 (1.580)	4.269 (1.599)	5.378* (1.948)	7.383*** (2.847)
Confidence in government		0.168 (1.571)	0.159 (1.508)	0.161 (1.612)	0.183* (1.823)	0.168 (1.610)	0.160 (1.654)	0.200* (1.997)	0.256*** (2.810)
Public information campaigns * Confidence in the government		-0.113* (-1.833)	-0.109* (-1.813)	-0.110* (-1.903)	-0.123** (-2.116)	-0.114* (-1.896)	-0.108* (-1.930)	-0.127** (-2.194)	-0.157*** (-3.058)
Share of population beyond 65 years of age in total population			-0.0262 (-0.812)						0.0306 (0.549)
log of GDP per capita (constant 2010 US$)				0.0545 (0.420)					-0.150 (-0.511)
log of hospital beds per 1,000 population					-0.264 (-1.261)				-0.585** (-2.169)
log of population density						0.0291 (0.198)			0.114 (0.687)
log of out-of-pocket spending on health (PPP, US$ per capita)							0.330 (1.242)		0.637 (1.203)
Share of deaths from obesity								0.106*** (3.221)	0.138*** (2.771)
Africa dummy	0.691 (0.649)	0.835 (1.017)	0.658 (0.731)	1.070 (1.069)	1.384* (1.712)	0.822 (0.894)	1.522 (1.477)	1.492** (2.070)	2.798*** (3.212)
Asia dummy	0.639 (0.720)	1.423** (2.129)	1.634** (2.568)	1.878*** (2.683)	1.742*** (2.923)	1.673** (2.205)	2.091*** (3.696)	1.533** (2.331)	1.969** (2.185)
America dummy	3.581*** (4.588)	3.287*** (6.654)	3.157*** (6.099)	3.407*** (6.804)	3.184*** (5.972)	3.269*** (5.881)	3.570*** (7.884)	3.449*** (7.132)	3.471*** (5.554)
Europe dummy	3.449*** (4.624)	3.336*** (7.436)	3.443*** (7.815)	3.426*** (7.525)	3.499*** (7.585)	3.316*** (5.445)	3.451*** (8.727)	3.356*** (7.208)	3.294*** (4.517)
Constant	4.430** (2.030)	-3.481 (-0.667)	-3.583 (-0.681)	-4.280 (-0.797)	-4.766 (-0.948)	-4.087 (-0.803)	-5.771 (-1.113)	-7.133 (-1.439)	-13.67** (-2.462)
N	73	73	71	72	69	72	71	73	69
R-squared	0.513	0.613	0.640	0.640	0.640	0.639	0.650	0.644	0.719

Note: Robust *t* statistics are in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively. Control variables (except for regional dummies & share of deaths from obesity) are average values between 2010 and 2019. Data for the share of deaths from obesity is for the year 2017. Values for log of public information campaigns are averaged daily values for the year 2020.

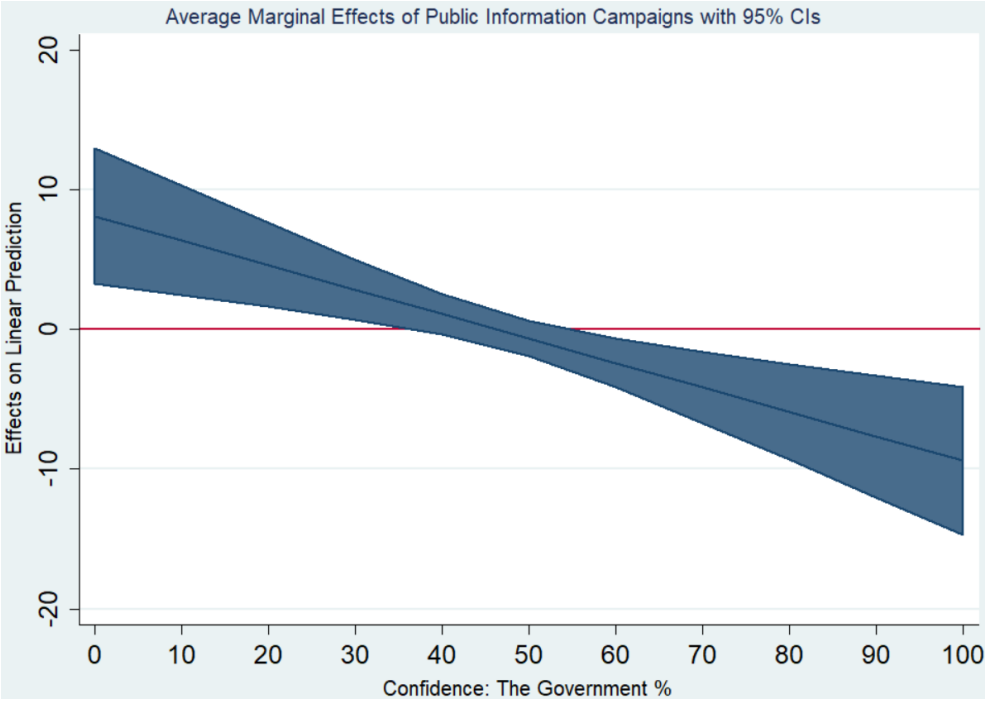

Figure 3: Average marginal effects of the Public Information Campaigns Index on the log of cumulated Covid-19 cases per million at different levels of confidence in government (%).

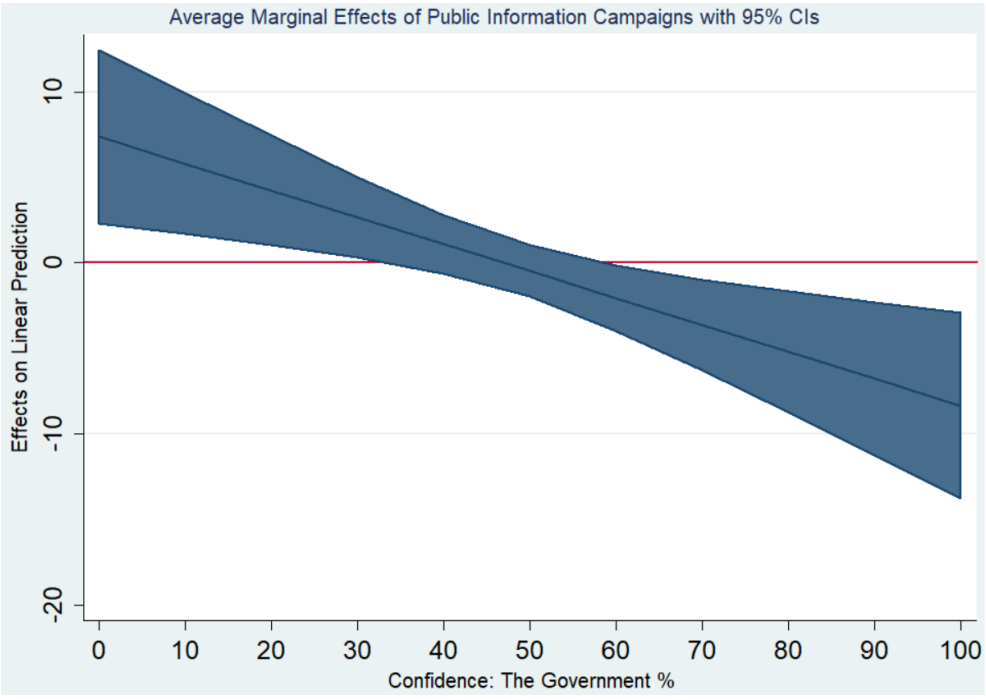

Figure 4: Average marginal effects of the Public Information Campaigns Index on the log of cumulated Covid-19 deaths per million at different levels of confidence in government (%).

4.3. Voluntary compliance with Covid-19 measures: trust matters

The effect of public information campaigns on Covid-19 fatalities can be understood as voluntary compliance with crisis communication content based on trust. This section follows the path of non-mandatory compliance and political trust to examine if trust affects the necessity of having lockdown measures in place. Therefore, we use the Risk of Openness Index from Oxford's Covid-19 Government Response Tracker as the dependent variable.

The risk of openness can be understood as the risk of lifting lockdown policies (Hale et al. 2020a). A negative association between political trust and the risk of openness would mean that countries with higher trust face a lower risk when lifting lockdown policies based on an effective response to the pandemic apart from lockdown measures.

Hypothesis 3: Higher government trust levels are associated with a lower risk of openness, *ceteris paribus*.

To test this hypothesis, the baseline econometric model is:

$$Risk\ of\ Openness_i = cons + \beta_1 * Confidence\ in\ Government_i + \beta_2 * Controls_i + \varepsilon_i \qquad (4)$$

The index is based on four out of six recommendations from the World Health Organization. These four recommendations are as following (World Health Organization 2020a)[6]:

1. Covid-19 transmission is controlled to a level of sporadic cases and clusters of cases
2. Sufficient public health workforce and health system capacities are in place
3. Manage the risk of exporting and importing cases from communities with high risks of transmission
4. Communities are fully engaged and understand that the transition away from large-scale movement restrictions and public health and social measures […] is a 'new normal' in which prevention measures would be maintained, and that all people have key roles in preventing a resurgence in case numbers.[7]

In this model, we control for the same variables that we used in the previous models: age structure, income per capita, health care system capacity, population density, out-of-pocket expenditure on health, and the share of deaths from obesity. Variables associated with Covid-19 cases and deaths should also explain the risk a country faces when removing lockdown policies in light of the pandemic. In line with our previous findings and the reviewed literature on the positive role of political trust on public behavior during crises, we expect the explanatory variable to show a negative sign.

[6] Two WHO recommendations are not included in the Risk of Openness Index: "Outbreak risks in high-vulnerability settings are minimized" & "Preventive measures are established in workplaces".
[7] See for a more detailed description of this index: Hale et al. (2020a).

Figure 5 shows the correlation between political trust and the log of the Risk of Openness Index. The correlation is -0.446 and gives us some graphical evidence of a decrease in openness risk due to higher trust levels.

The regression models in Table 6 show the association between the Risk of Openness Index and political trust as the explanatory variable. The first seven models show a significant negative association between political trust and the log of the risk of openness. A negative association between confidence in government and a decreased risk when lifting lockdowns exists. The explanatory power rises from 45.7% in Model 1 to 55.2% in Model 8. There are significant regional differences, as demonstrated by the continent dummies in all models. Among the other control variables, none shows a significant association with the dependent variable. In Model 8, all independent variables are included. Confidence in government shows the expected negative sign. A 1 percentage point increase in government confidence is associated with decreased risk when lifting lockdown policies by 0.423%.[8]

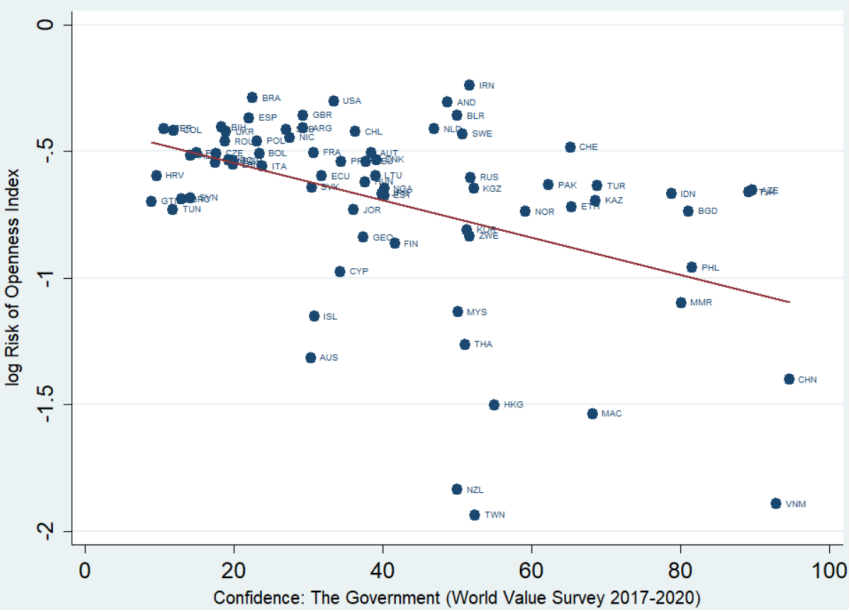

Figure 5: Scatterplot of the correlation between log of Risk of Openness and the share of people with high and medium confidence in the government values for a country with line of best fit. Correlation -0.446.

[8] After running post estimation commands, we exclude Iceland from the estimation for model 8 because it was identified as an outlier. Outliers are defined as datapoints that are both high in leverage and in the absolute of residuals.

Table 6. Regression results with the averaged values of the log of the Risk of Openness Index for 2020 as the dependent variable

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	log of Risk of Openness							
Confidence in the government	-0.00354* (-1.897)	-0.00458** (-2.438)	-0.00413** (-2.321)	-0.00403** (-2.143)	-0.00407** (-2.221)	-0.00379** (-2.105)	-0.00289* (-1.675)	-0.00424** (-2.178)
Share of population beyond 65 years of age in total population		-0.00739 (-0.863)						-0.00808 (-0.665)
log of GDP per capita (constant 2010 US$)			-0.0353 (-1.039)					0.00871 (0.155)
log of hospital beds per 1,000 population				0.0359 (0.860)				0.0223 (0.370)
log of population density					-0.0432 (-1.185)			-0.0157 (-0.500)
log of out-of-pocket spending on health (PPP, US$ per capita)						0.0286 (0.656)		0.0411 (0.481)
Share of deaths from obesity							0.00979 (1.344)	0.00402 (0.444)
Africa dummy	0.851*** (4.927)	0.777*** (4.099)	0.734*** (3.511)	0.843*** (4.917)	0.957*** (5.527)	0.907*** (4.775)	0.902*** (4.782)	0.923*** (3.778)
Asia dummy	0.682*** (3.509)	0.703*** (3.693)	0.668*** (3.253)	0.821*** (4.685)	0.889*** (4.568)	0.836*** (4.617)	0.741*** (3.782)	0.879*** (4.100)
America dummy	1.051*** (6.043)	0.989*** (5.475)	0.980*** (5.259)	1.074*** (6.256)	1.118*** (7.239)	1.072*** (6.305)	1.053*** (5.945)	1.073*** (6.276)
Europe dummy	0.987*** (5.813)	0.989*** (5.966)	0.956*** (5.447)	0.962*** (5.823)	1.087*** (6.368)	0.991*** (6.038)	0.979*** (5.620)	1.049*** (5.650)
Constant	-1.434*** (-7.852)	-1.285*** (-5.516)	-1.032** (-2.588)	-1.456*** (-7.589)	-1.327*** (-7.463)	-1.607*** (-4.927)	-1.571*** (-7.846)	-1.685*** (-4.355)
N	75	73	74	69	74	71	73	68
R-squared	0.457	0.492	0.493	0.500	0.506	0.492	0.458	0.552

Note: Robust *t* statistics are in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively. Control variables (except for regional dummies & share of deaths from obesity) are average values between 2010 and 2019. Data for the share of deaths from obesity is for the year 2017.

5. Conclusion

We show that trust in the government is a crucial explanatory factor for the cross-country variation in Covid-19 confirmed cases and deaths in 2020. Countries, where people have higher levels of trust in the government are able to reduce the human costs of Covid-19, holding other factors constant. Applying the theory from Easton (1975) on the Covid-19 pandemic would mean that countries with higher political support values delivered a performance that was perceived to be trustworthy in recent years. Their political systems' outputs matched the system members' formulated demands, leading to higher support levels. In times of crisis, these systems can draw on the general levels of support, giving them an advantage in the virus's containment. As citizens built up trust in their authorities prior to the crisis, they are likely to respond with more voluntary compliance to government recommendations. On the other hand, in societies with low trust levels, people do not expect their authorities to perform well. In countries where the perceived outputs hardly match the population's demands, people are less likely to expect a good governmental performance during the crisis. Such countries would have to fall back on negative incentives, such as penalties, in order to ensure the necessary adherence to containment measures.

Furthermore, public information campaigns were only negatively associated with Covid-19 cases and deaths in countries with a share of medium- and high-trusting individuals above 47%. The top-down communication between governments and the civil society as a policy tool to limit the virus’s spread only unfolds its potential in politically high-trusting societies. Political trust is a crucial factor for effective crisis management.

We also found evidence that political trust limits the risk countries face when opening from lockdowns. This result supports the interpretation that the negative association between political support and Covid-19 cases and deaths as discussed for Hypothesis 1 can be traced back to behavioral changes due to higher trust levels. Government and the public must work together effectively to control transmission. Citizens must comply with government regulations to make testing, contact tracing, and quarantine effective as defined for the Risk of Openness Index. Therefore, it can be stated that trust in the government impacts voluntary compliance with Covid-19 measures and reduces the risk to open up countries from lockdowns.

The topic of political trust has further consequences for country-specific vaccine strategies. High-trust societies should rely on effective crisis communication rather than implementing costly policies, while governments in low-trusting societies will have to prepare for a reluctant society. However, the effect of trust on public compliance is not limited to pandemic situations. Long-term political trust-building strategies will be essential for future crisis management. Hence, we conclude that trust could decrease policy enforcement costs and generate public approval for sustainable change.

Appendices

Literature Review on the role of trust in crisis (in alphabetical order)

Study	Title	Method	Sample	Aims	Results
BARGAIN and Aminjonov (2020)	Trust and compliance to public health policies in times of COVID-19	Human mobility; Difference in differences approach	Europe, 19 countries, 233 regions: N=440 - 7,899	- analyzing the nexus between compliance to containment policies and levels of trust in policymakers before the crisis	- high-trust regions decreased their mobility related to non-necessary activities significantly more than low-trust regions
BASOLO et al. (2009)	The effects of confidence in government and information on perceived and actual preparedness for disasters	Quantitative surveys; Cross-sectional; Multivariate regression analysis	United States: Los Angeles, N=182 New Orleans, N=222	- analyzing the impact of confidence in local government to handle a natural disaster on the likelihood of a household preparing for a major hurricane - analyzing if exposure to risk and preparedness information is positively associated with perceived preparedness and actual preparedness for natural disasters	- a high level of confidence in the local government to handle a natural disaster was positively associated with perceived preparedness - limited support for the impact of information exposure on actual preparedness
BLAIR et al. (2016)	Public health and public trust: Survey evidence from the Ebola Virus Disease epidemic in Liberia	Quantitative survey, Cross-sectional; Ordinary Least Squares regression	Liberia: N=1555	- analyzing the nexus of the relationship between trust in government and non-governmental organizations and compliance with Ebola Virus Disease control interventions	- lower trust in government decreased the likelihood to take precautions against EVD - lower trust decreased obedience to social distancing measures - lower trust decreased the likelihood to support policies, such as “safe burial” of EVD-infected bodies - trust in international non-governmental organizations was not associated with the likelihood to support or comply with EVD control policies,
CHANLEY et al. (2000)	The origins and consequences of public trust in government: A time series analysis	Quantitative surveys; Quarterly time series from 1980 to 1997; Vector autoregression	United States: N=71	- analyzing the origins and consequences of public trust in the United States national government	- a decline in political trust associated with: decline in positive evaluations of Congress, reduced support for government action to address a range of domestic policy concerns - a positive relationship between trust and public policy mood

Study	Title	Method	Sample	Aims	Results
CHOI and Wehde (2020)	Trust in emergency management authorities and individual emergency preparedness for tornadoes	Quantitative surveys; Cross-sectional; Ordinary least squares regression	United States: N=3,976	- analyzing the nexus between individual emergency preparedness for tornados and trust in local authorities and the Federal Emergency Management Agency (FEMA)	- trust in FEMA was not associated with individual preparedness for tornados - higher trust levels partly explained increased preparation for tornados
ELGAR et al. (2020)	The trouble with trust: Time-series analysis of social capital, income inequality, and COVID-19 deaths in 84 countries	Quantitative survey data from World Value Survey; Panel data for 30 days; Poisson regression	84 countries: N=2490 daily observations	- analyzing the nexus between income inequality, social trust, group affiliations, civic responsibility, trust in public institutions, and Covid-19 mortality	- mortality is positively related to income inequality, social trust, and group affiliations - mortality was negatively associated with civic engagement and trust in state institutions
GOLDSTEIN and Wiedermann (2020)	Who do you trust? The consequences of political and social trust for public responsiveness to COVID-19 orders	Human mobility data; Cross-sectional; Ordinary least squares regression	United States: N=47,000 - 50,000	- analyzing the nexus between political and social trust, stay-at-home orders, and public behavior in the form of human mobility	- social and political trust levels can explain the variety in public obedience to governmental regulations
HAN et al. (2017)	The effects of trust in government on earthquake survivors' risk perception and preparedness in China	Quantitative surveys; Cross-sectional; Ordinal logistic regression	China: N=501	- analyzing if earthquake survivors have lower risk perception if they have a higher degree of trust in government - analyzing if survivors of earthquakes with higher degrees of trust in government would prepare less for the next potential earthquake	- people with higher degrees of trust in government perceived lower consequences of potential earthquakes and tended to prepare less

Study	Title	Method	Sample	Aims	Results
JIN et al. (2020)	Relationship between psychological responses and the appraisal of risk communication during the early phase of the COVID-19 pandemic: A two-wave study of community residents in China	Quantitative survey; Multigroup cross-lagged structural equation model	China: Wave 1, N=788 Wave 2, N=318	- analyzing the nexus between risk communication, preventive behaviors, appraisal of risk communication, anxiety level, and susceptibility to emotional contagion	- reciprocal negative associations between anxiety and risk communication - a higher evaluation of risk communication from health authorities was associated with the adoption of preventive behaviors
LAZARUS et al. (2021)	A global survey of potential acceptance of a COVID-19 vaccine	Quantitative survey; Cross-sectional; Univariate regressions:	19 countries: N= 13,426	- surveying general Covid-19 vaccine acceptance - analyzing the nexus between trust in information from government sources and the intention to get vaccinated	- 71.5% of participants would be very or somewhat likely to take a COVID-19 vaccine - respondents with higher levels of trust in information from their government were more in favor of vaccine acceptance
LIM et al. (2020)	Government trust, perceptions of COVID-19 and behavior change: cohort surveys, Singapore	Quantitative survey; Cohort-based study in 7 waves; Multivariable logistic regression models	Singapore: 633 participants, N=2857	- analyzing the nexus between public perceptions, trust in government communications, and the adoption of protective behaviors	- higher levels of trust were significantly associated with a higher intention to adopt protective behavior - governmental recommendation to universally wear facemasks correlated with a substantial rise in facemask use
LINDSTRÖM (2008)	Social capital, political trust and purchase of illegal liquor: A population-based study in southern Sweden	Quantitative surveys; Cross-sectional; Logistic regression model	Sweden: N=27,757	- analyzing the nexus between political trust in the Swedish parliament and the purchase of illegal liquor	- low political trust was significantly associated with the self-reported purchase of illegal liquor
MARIEN and Hooghe (2011)	Does political trust matter? An empirical investigation into the relation between political trust and support for law compliance	Quantitative survey data from European Value Survey; Cross-sectional; Multilevel ordered logistic regression analysis	33 European countries: N= 41,125	- analyzing the nexus between political trust and support for law compliance	- participants with low levels of political trust were significantly more likely to accept illegal behavior

Study	Title	Method	Sample	Aims	Results
SCHOLZ and Lubell (1998)	Trust and taxpaying: Testing the heuristic approach to collective action	Quantitative surveys; Cross-sectional; Two-stage conditional maximum likelihood analysis	United States: N=299	- analyzing the nexus between political and social trust and compliance over and obedience to laws and the fear of getting caught by enforcement agencies	- political and social trust significantly increased the likelihood of tax compliance
TAKIAN et al. (2020)	The effect of risk communication on preventive and protective behaviours during the COVID-19 outbreak: mediating role of risk perception	Quantitative survey; Cross-sectional; Structural equation modeling	Iran: N=3213	- analyzing the nexus between risk communication and protective behavior during the Covid-19 pandemic	- risk communication was positively associated with protective behavior
VAN DER WEERD et al. (2011)	Monitoring the level of government trust, risk perception and intention of the general public to adopt protective measures during the influenza A (H1N1) pandemic in the Netherlands	16 quantitative surveys; Cross-sectional data structured in three periods; Ordinal logistic regression	Netherlands: N=8060	- observing time trends in government trust, risk perception, intention to adopt protective measures, and the acceptance of vaccination - analyzing the nexus between intention to receive vaccination and government trust, fear/worry, and perceived vulnerability	- trust in the Dutch government decreased as the pandemic progressed - a positive association between political trust and the public's will to take protective measures - a positive association between political trust and vaccine acceptance
VINCK et al. (2019)	Institutional trust and misinformation in the response to the 2018–19 Ebola outbreak in North Kivu, DR Congo: a population-based survey	Quantitative survey; Cross-sectional; Multivariate models	DR Congo, North Kivu: N=961	- analyzing the nexus between institutional trust, belief in misinformation, and attitudes towards Ebola vaccines and disease controlling measures in DR Congo	- belief in misinformation was associated with decreased likelihood to adopt preventive measures - low institutional trust associated with decreased will to take preventive measures and decreased vaccine acceptance

Table A1: Data description

Dependent Variable	Definition	Source
Covid-19 cases	Total Covid-19 confirmed cases per million. Cumulated values for 01.01.2020-31.12.2020.	ECDC 2021a
Covid-19 deaths	Total Covid-19 fatalities per million. Cumulated values for 01.01.2020-31.12.2020.	ECDC 2021a
Risk of Openness Index	Risk of lifting lockdown policies. Averaged values for 01.01.2020-31.12.2020	Hale et al. 2020a
Explanatory Variable		
Confidence in the government	World Values Survey, Wave 7, Question 71: "I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?" Cumulated percentages of *a great deal of confidence* and *quite a lot of confidence*. Data are available for 78 countries.	Haerpfer et al. 2020
Public Information Campaigns	Item H1 of the Oxford Covid-19 Government Response Tracker: 0 = no Covid-19 public information campaign 1 = public officials urging caution about Covid-19 2 = coordinated public information campaign	Hale et al. 2020b
Control Variables		
Share of population beyond 65 years of age in total population	Population ages 65 and above (% of total population), Average 2010-2019	WDI 2020
GDP per capita (constant 2010 US$)	GDP per capita, (constant 2010 US$), Average 2010-2019	WDI 2020
Hospital beds per 1,000 population	Hospital beds per 1,000 people, Average 2010-2019	WDI 2020
Population density	Population density (people per sq. km of land area), Average 2010-2019	WDI 2020
Out-of-pocket spending on health (PPP, US$ per capita)	Health expenditure through out-of-pocket payments per capita in international dollars at purchasing power parity, Average 2010-2019	WDI 2020
Share of deaths from obesity	Share of premature deaths attributed to high body mass index, 2017	Global Burden of Disease Collaborative Network 2018

Table A2: List of countries above the turning point of confidence in the government >46.892% (Calculation based on Table 5)

Country	Confidence in government in %	Averaged Public Information Campaigns Index	Cumulated Covid-19 cases per million	Cumulated Covid-19 deaths per million
Andorra	48.7	1.175	107539	1102.695
Azerbaijan	89.6	1.689	21724.154	269.549
Bangladesh	81.1	1.872	3133.286	46.305
Belarus	50	0.721	21161.520	153.556
China	94.6	1.951	66.846	3.324
Ethiopia	65.4	1.590	1092.711	16.944
Indonesia	78.8	1.918	2772.971	82.461
Iran (Islamic Republic of)	51.7	0.847	14804.027	661.246
Kazakhstan	68.6	1.590	11027.919	147.789
Korea (the Republic of)	51.3	1.831	1253.463	19.134
Kyrgyzstan	52.2	1.522	12474.804	208.455
Malaysia	50.1	1.918	3732.868	15.479
Myanmar	80.1	1.628	2322.100	50.138
Netherlands	46.9	1.628	47116.988	666.261
New Zealand	50	1.885	378.455	5.184
Norway	59.2	1.836	9448.392	83.650
Pakistan	62.3	1.770	2211.616	46.855
Philippines	81.6	1.874	4360.306	84.476
Russian Federation	51.8	1.590	22339.740	404.209
Sweden	50.7	1.628	44799.422	984.547
Switzerland	65.2	1.675	53411.367	841.038
Taiwan	52.4	1.945	34.220	0.294
Tajikistan	89.2	1.735	1394.475	9.436
Thailand	51	1.645	120.903	0.931
Turkey	68.8	1.798	26960.641	258.409
Viet Nam	92.9	1.847	15.379	0.360
Zimbabwe	51.7	1.694	1027.052	25.567

Data Availability Statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on request.

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