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ABSTRACT

Inequality and Support for Government Responses to COVID-19*

Despite a rich literature studying the impact of inequality on policy outcomes, there has been limited effort to bring these insights into the debates about comparative support for government responses to the COVID-19 pandemic. We fill in this gap by analyzing rich survey data from six countries spanning different income levels and geographical locations — China, Italy, Japan, South Korea, the United Kingdom, and the United States. We find that poorer individuals are less supportive of government responses, and that poorest individuals are least supportive. Furthermore, poorer individuals residing in more economically unequal countries offer even less government support. We also find that both economic and non-economic factors could affect the poor's decisions to support stringent government policies. These findings suggest that greater transfers to the poor may ameliorate their resistance, increase support for strict policies, and may reduce the potential deepening of social inequalities caused by the pandemic.

JEL Classification: D0, H0, I3, O1
Keywords: COVID-19, inequality, income quintiles, poverty

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1. Introduction

Why were some countries able to implement strict economic and social lockdowns on their citizens in an effort to thwart the spread of Covid-19, while other countries either chose to avoid such closures, or were unable to effectively implement and enforce restrictive measures? Much has been written about cross-national variation in Covid-19 outcomes, such as infection and fatality rates (Carleton and Meng 2020, Hassel et al. 2020, Daneshkhah et al. 2020), and some effort has been made to demonstrate the effectiveness of different government policies (Bosancianu et al. 2020). In this piece, we supplement this work by studying how social structures shaped the policy choices available to government officials. In particular, we argue that underlying levels of inequality were critical in constraining officials' choices when rapid responses could potentially thwart disaster. To be clear, we are not asking which policy worked best, as that is a matter of ongoing study, but rather we seek to explain the variation in policy choices.

Using nationally representative survey data from six countries in April 2020, when most countries were facing their first surge in infections and designing their response efforts, this note demonstrates that in all countries, the poorest quintiles were the least supportive of strict measures, such as shutting down businesses and limiting mass gathering. However, discontent with these practices was significantly stronger among the poor in the most unequal countries. Finally, we use mediation analysis to demonstrate that both economic and non-economic factors lead poorer people to disapprove of strict measures.

2. Inequality and Pandemic Response

There is a deep literature in political economy studying the endogenous relationship between economic inequality and policy making. Clearly, choices that governments make regarding taxes, social welfare, immigration, and economic integration have differential effects on citizens and can lead to divergence in economic fortunes (Meltzer and Richards 1981, Haggard et al. 2013). On the other hand, inequality limits the space for policy options and severely hampers policy implementation (Pontusson and Rueda 2010). Some citizens, due to their position in society and level of resources, may be either unwilling or unable to agree to government directives or abide by government regulations. Empirically disentangling this relationship is extremely difficult, because of the intimate interplay between inequality and policy developments over time. Original institutions and policy choices shape the distribution of resources in society, allocating political power to some actors, who then use it to influence future institutional and policy choices (Boix 2003, Acemoglu et al. 2005).

Thus far, the balance of the literature therefore has been on demonstrating how institutions affect inequality, but there is less evidence on how deep-seated structural inequality influences policy choices. Scholars have shown, however, that inequality is associated with lower levels of public good provision (Anderson et al. 2008, Moene and Wallerstein 2002), including in healthcare (Leigh et al. 2009, Mellor 2001). At the individual level, research demonstrates that high levels of inequality reduce trust in government institutions, which can undermine policy compromises and implementation (Gustavsson and Jordahl 2008). Citizens may be unwilling to make sacrifices if they are not convinced that authorities will compensate them for their efforts (Elger 2010, Barone and Mocceti 2016).

Lower levels of education among poorer groups may exacerbate distrust, when the relationship between their sacrifice and country-level policy goals are not sufficiently clear (Uslaner and Brown 2005). Related work on marginalized groups, which is associated with inequality, has shown that marginalized individuals are less trusting of government (Obadare 2005) and less likely to comply with public health advisories (Blair, Morse, and Tsai 2017; Arriola and Grossman 2020).

The impact of inequality on policy choices is most critical in *hard times*, such as war, financial crises, or pandemics, when government leaders must quickly respond to the threat, but some individuals are either unwilling or unable to abide by government strictures (Gourevitch 1986, Kahler and Lake 2013). They may see the policies as placing an unfair burden on them relative to richer individuals, lack trust in the policy motivations, or the necessary measures may simply not be affordable due to low levels of wealth and savings, making it difficult to cushion the blow with consumption smoothing (Zimmerman and Carter 2003, Kumhof et al. 2015, Cynamon and Fazzari 2016). Inequality also undermines societies' social fabric, creating group conflict during these times and complicating coordinated efforts to combat health crises (Parker 2002, Kumar and Quinn 2012).[1]

It is now quite clear that the severity of the Covid-19 pandemic differed dramatically across individual countries; however, debate remains about what factors are most responsible for the variance (Bosancianu 2020). Disagreement is particularly contentious about the effectiveness of policy responses. While some countries were able to impose restrictive economic lockdowns on their populations and reduce infection and ultimately fatality rate,

other countries either chose to avoid such closures, or were unable to effectively implement and enforce restrictive measures (Hale 2020, Cheng et al. 2020).

Inequality has been an important part of policy debates over Covid-19 responses measures. Poorer citizens were more likely to work in service sector jobs, such as restaurants and retail, which were the immediate victims of economic lockdowns. They had less accumulated savings and therefore were less likely to afford extended time away from work. They were also less able to transition to virtual work, either because of the nature of their occupation or because they lacked sufficient space and internet access (Mahler et al. 2020). Classification of many poorer workers as "essential employees" in super markets and delivery services meant that they were more likely to be exposed to the disease (Blau et al. 2020). Shutdowns of public services had a more severe impact on poorer communities, who were more likely to rely on public transportation and less likely to have private child care options. Among the very poorest, school closures not only endangered education prospects but also deprived children of free breakfast and lunches. In the United States, Raj Chetty and colleagues have used fine-grained data to demonstrate a K-shaped effect of Covid, where richer populations reduced expenditures and increased their income, while poorer citizens actually increased their expenditures as their income declined (Chetty et al. 2020).

Because these economic outcomes were predictable by those likely to be affected at the onset of the crisis, we suggest in our first hypothesis that citizens in lower income strata were more likely to resist strict policies, voicing their disapproval, and shirking responsibilities under government orders. We further argue in our second hypothesis that the discontent among poorer income strata should be most severe in countries with higher levels of inequality, where social distrust is highest and where the burden of lockdown was less

likely to be shared. Once we can establish the validity of these two hypotheses, we go one step further and examine the underlying motivations for the relationship between inequality and support for government policies. Were poorer citizens most afraid of the economic burden they would face or were limits to leisure and family time more concerning?

To illustrate the potential for these relationships, Figure 1 uses a partial regression plot to study the relationship between stringency of country-level Covid-19 policies and inequality, holding constant countries' population, GDP per capita, and exposure to the disease. Stringency is measured by the Oxford Covid Government Response tracker program (Hale et al.), ranking countries' daily policy on a standardized scale ranging between 0 (not stringent at all) to 100 (highly stringent). We limit the range to the period between February 1st, 2020 after the disease had already been discovered outside of China, but before April 14th, 2020, the day before our survey data was initiated, and many countries were in the midst of their first surge and still designing their policy responses.[2] The index is comprised of seven indicators of lockdown, such as school closures and restrictions in movement, that are consistent with our survey questions below. We measure inequality using the Solt (2019) database, which is considered to be the most consistent measure of cross-national inequality. The figure provides tentative evidence that countries with higher inequality chose less restrictive policies in their initial response to the crisis.

While the correlation demonstrated in Figure 1 is illustrative, there is a clear ecological inference problem. We cannot tell from whether it is the poor that resisted stringent policy at the outset of the crisis and thereby drove the relationship or whether richer groups in society were pushing back against strict lockdowns, knowing their resources allow

[2] After widescale breakouts, countries' policies were more reactive than proactive.

them to self-protect. To further test our theory, we move toward more fine-grained survey on individual-level reactions to lockdown policies in six countries.

3. Research Design

We analyze individual data from a six-country survey to examine the extent to which citizens support their government's responses to the COVID-19 pandemic. This survey was implemented between April 15 and April 23, 2020 by Belot *et al.* (2020), covering 6,089 respondents from China, South Korea, Japan, Italy, the United Kingdom, and the four largest states in the United States (California, Florida, New York, and Texas). The data for each country are nationally representative. The sample size hovers around 1,000 observations for each country, ranging from 963 for South Korea to 1,055 for the U.S. The survey contains information on basic demographic variables of respondents, their income (measured in quintiles), their self-reported assessments on the economic and non-economic consequences as well as their support of the government's policy responses to the COVID-19 pandemic. First, an overall assessment of the government response to the pandemic is assessed with this question "Do you agree with the current approach taken by your government in response to the pandemic?"[3] Second, survey respondents were asked to assess the effectiveness of the seven particular government measures, which correspond closely to the stringency index above.[4]

- Shutting down schools
- Shutting down public transport

[3] The respondents could select one of the five options "1 = Strongly disagree", "2 = Somewhat disagree", "3 = Neither agree nor disagree", "4 = Somewhat agree", and "5 = Strongly agree."

[4] The specific survey question is "How effective do you believe each of these measures is in reducing the spread of the epidemic?" The respondents were asked to select one of the following five answer options "1 = Not effective at all", "2 = Slightly effective", "3 = Moderately effective", "4 = Very effective", and "5 = Extremely effective."

- Shutting down non-essential businesses
- Limiting mobility outside home
- Forbidding mass gatherings
- Introducing fines for citizens that don't respect public safety measures
- Requiring masks to be worn outside by everyone

Table A.1 in Appendix A presents the distribution of respondents' answers to the government's policy responses.

To enrich analysis, we collect our own data on COVID-19 infection rates at the region level (82 regions) for the six countries. The COVID-19 infection rate is measured as the number of cumulative COVID-19 cases over 1000 people in each region by April 14, 2020 (just before Belot *et al.*'s (2020) survey started). The average COVID-19 infection rate is 1.04 per mile, and ranges from 0.003 per mile in Qinghai, China to 23.4 per mile in New York, the U.S. For data on inequality, we mostly use data from the Solt (2019) database, but we also use some data from the World Bank Development Indicators (World Bank 2020) for robustness checks. Table A.2 in Appendix reports the means of these variables for each country.

To examine the association between income inequality and support of the government's responses to the COVID-19 pandemic, we estimate the following linear regression model with country fixed effects

$$Y_{ij} = \alpha + Income\_Quintile_{ij}\beta + X_{ij}\gamma + Country_j\delta + u_{ij} \qquad (1)$$

where Y_{ij} is a dependent variable indicating support of the government responses of individual *i* in country *j*. The control variables, *X*, include individuals' age and gender, urban residence, and a country's COVID-19 infection rate.

4. Empirical results

Table 1 presents the results, based on Equation (1), for the eight assessments of government responses to the pandemic. Overall, individuals in the four lower income quintiles are less supportive of the government responses (Table 1, column 1) than those in the richest (income) quintile. The differences are strongly, statistically significantly different at the five percent level or lower. Furthermore, the poorer quintiles tend to be less supportive than the richer quintiles. The poorest quintile is 0.18 points less supportive (the largest magnitude), followed by the second poorest quintile and middle quintile being 0.13 and 0.15 less supportive, and the second richest quintile being 0.09 points less supportive (on the 1 to 5 point scale).

For the specific government responses, the poorest two quintiles are less supportive for the government in shutting public transportation, limiting mobility outside the home, and forbidding mass gatherings. The estimated coefficients are usually statistically significant at the 5 percent level.

Further unpacking the estimation results for each country, Table A.3 in Appendix shows that the countries where individuals in poorer quintiles provide the least support for government responses include China, Italy, South Korea, and the U.S. Japan and the U.K., however, do not adhere to this pattern. These two countries have lower economic inequality than the others; furthermore, Japan also has a lower COVID-19 infection rate (Table A.2).

To test the second hypothesis and probe how inequality conditions the resistance of the poor to strict lockdown polices, we interact the income quintiles with a country's inequality level. To focus our presentation, we only consider as our main dependent variable the overall assessment of government responses. But we also construct an aggregation index for the

seven specific assessments using Principal Component Analysis (PCA) as a robustness check. The estimation results, shown in Table 2, suggest that in countries with high Gini indexes, the second poorest quintile and the middle quintile are strongly less supportive of government responses (column 1). When using the alternative PCA index, the results are qualitatively similar, albeit somewhat statistically weaker, for the model with inequality (column 2).

To shed more light on the mechanisms of impacts, we test whether economic and non-economic factors mediate the effect of income on support for government responses. We first regress individuals' self-reported assessment of several economic and non-economic consequences on the income quintiles. Table A.4 (Appendix A) shows that poorer people report more adverse effects of the pandemic COVID. We subsequently regress individuals' overall assessment of the government response variable on their assessment of the economic and non-economic consequences. The results, offered in Table A.5 (Appendix A), show that individuals are less likely to support government responses if they report more adverse effects of , such as (permanent or temporary) job losses, enjoying less free time and feeling more bored.

Using the results from Tables A.4 and A.5, we employ the causal mediation approach discussed in Imai *et al.* (2010a; 201b) to estimate the indirect effects of the poorest income quintile on the overall assessment of government responses through several economic and non-economic outcomes that are caused by the pandemic.[5] Put differently, the indirect effects

[5] Analyzing the same data, Dang *et al.* (2020) find that the poorer quintiles experience reduced expected own labor income, less savings, and are less likely to change their behaviors, both in terms of immediate prevention measures against COVID-19 and healthy activities. See also Bloom *et al.* (2020) for a recent review of the general economic impacts of the pandemic.

with these outcomes can help better explain the channels through which being in the poorest quintile leads to less support for government responses.

Figure 2 shows the estimated shares (in percent) of the indirect effects on the total effects of the poorest quintile. The estimation results suggest that the potential for permanent job loss is the most important variable, accounting for 9 percent of the total effects. This is followed by the variables in the following order: less pollution (7 percent), temporary job loss (6 percent), less savings (5 percent), and enjoying more free time (4%). The remaining variables (i.e., expense change, boredom, troubles in sleeping and others people) contribute very little to the total effects.

We provide several additional robustness checks including potential multiple testing issues, alternative econometric models, and different measures of inequality and data source. These are discussed in more detail in Appendix B.

5. Discussion and Conclusion

We offer the first study that attempts to shed light on the complex relationship between inequality and support for government responses to the COVID-19 pandemic. Our findings using rich individual data from six countries (China, Italy, Japan, South Korea, the United Kingdom, and the United States) suggest that poorer individuals are less supportive of government responses, and poorest individuals are least supportive. Moreover, individuals in poorer quintiles residing in more economically unequal countries offer less government support. Yet, Japan and the U.K. stand out as exceptions potentially due to these countries' lower inequality.

In terms of the channels through which inequality can affect individuals' government support, we find that both economic and non-economic factors play important roles. These include having job security, more savings, a better living environment (with less pollution), and the ability to have more free time. An optimistic interpretation of our results is that these factors are amenable to compensation policies. Governments can gather more support from the poorer population groups through social protection measures that better preserve employment, that offer more employee benefits, or that simply improves the living environment. Offering more resources to the poor not only results in their increased support for stringent efforts, but can also help reduce the potential deepening of social inequalities and reduced social trust caused by the pandemic.

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Table 1. OLS regressions of agreement to government's responses to the COVID-19 pandemic

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Explanatory variables	Believe in the government in response to the pandemic	Believe in shutting down schools	Believe in shutting down public transport	Believe in shutting down non-essential businesses	Believe in limiting mobility outside home	Believe in forbidding mass gatherings	Believe in introducing fines for citizens that don't respect public safety measures	Believe in requiring masks to be worn outside by everyone
Poorest quintile	-0.1783***	0.0091	-0.1153**	-0.0402	-0.1049**	-0.1927***	-0.0768	-0.0800
	(0.0450)	(0.0480)	(0.0481)	(0.0474)	(0.0473)	(0.0455)	(0.0518)	(0.0498)
Second poorest quintile	-0.1324***	-0.0323	-0.1464***	-0.0639	-0.0806*	-0.1583***	-0.0063	-0.0797
	(0.0450)	(0.0477)	(0.0485)	(0.0475)	(0.0468)	(0.0446)	(0.0503)	(0.0493)
Middle quintile	-0.1450***	0.0566	-0.0367	0.0420	0.0335	-0.0633	0.0407	0.0650
	(0.0447)	(0.0449)	(0.0452)	(0.0449)	(0.0443)	(0.0416)	(0.0477)	(0.0470)
Second richest quintile	-0.0895**	0.0290	0.0099	0.0485	0.0224	-0.0377	0.0353	-0.0592
	(0.0438)	(0.0440)	(0.0435)	(0.0434)	(0.0439)	(0.0408)	(0.0466)	(0.0458)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3.7012***	3.8575***	3.9584***	3.7566***	3.7136***	4.1796***	3.4475***	3.8065***
	(0.0674)	(0.0694)	(0.0715)	(0.0703)	(0.0693)	(0.0682)	(0.0766)	(0.0723)
Observations	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950
R-squared	0.168	0.064	0.077	0.090	0.051	0.032	0.039	0.163

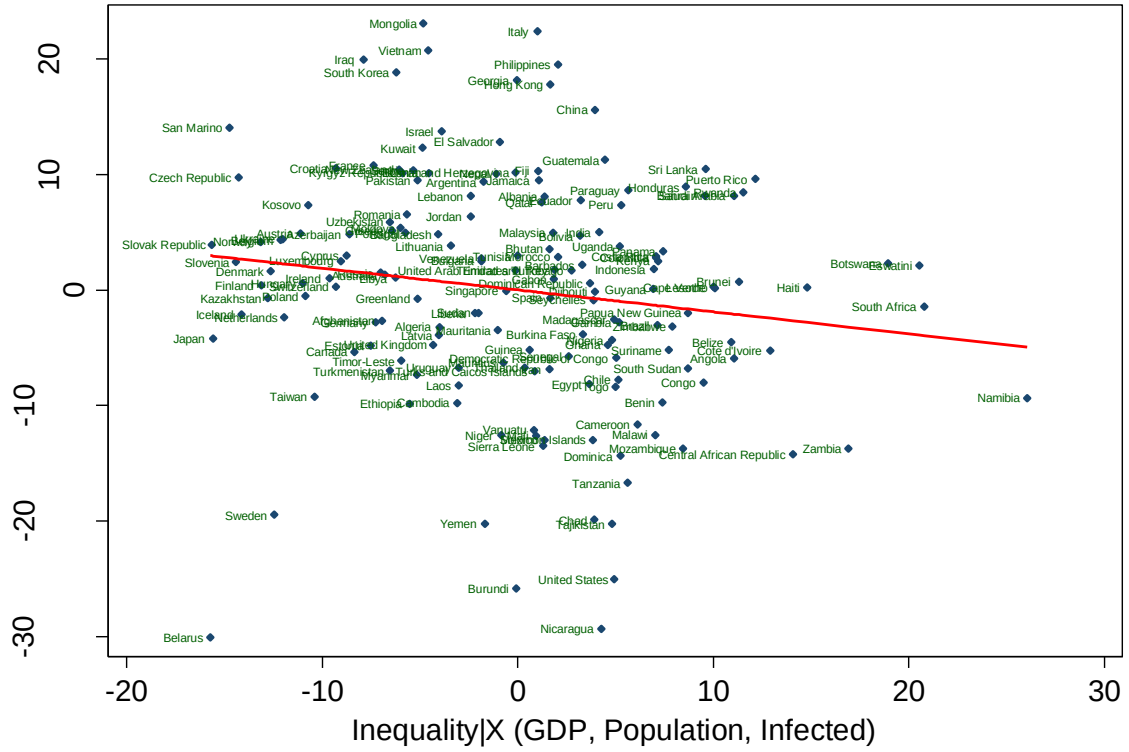
Note: The control variables include age groups, gender, urban dummy, country dummies, and COVID-19 infection rates. The richest income quintile is the reference group. Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 2: OLS regressions with interactions

	(1)	(2)
Explanatory variables	Believe in the approach of the government in response to the pandemic	Index of the variables 'believe to different policies'
Poorest quintile	0.0967	0.3304
	(0.2942)	(0.3230)
Second poorest quintile	0.8628***	0.3894
	(0.2958)	(0.3160)
Middle quintile	0.7084**	0.9665***
	(0.2990)	(0.3115)
Second richest quintile	0.4210	0.0459
	(0.2945)	(0.3053)
Richest quintile	*Reference*	
Poorest quintile * Gini index	-0.0080	-0.0125
	(0.0084)	(0.0093)
Second poorest quintile * Gini index	-0.0291***	-0.0141
	(0.0084)	(0.0091)
Middle quintile* Gini index	-0.0250***	-0.0278***
	(0.0086)	(0.0090)
Second richest quintile * Gini index	-0.0149*	-0.0011
	(0.0083)	(0.0088)
Control variables	Yes	Yes
Constant	3.7689***	0.0248
	(0.0694)	(0.0665)
Observations	5,950	5,950
R-squared	0.170	0.063

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 1: Adjusted Relationship between Inequality and Policy Stringency between February 1, 2020 and April 14, 2020



coef = -.1889889, (robust) se = .08717687, t = -2.17

Figure 2. The ratio of the indirect effect to the total effect through several mediating variables (%) (point estimates and the 95% confidence interval)

Note: Estimation using medeff command in Stata (Hicks and Tingley, 2011).

Appendix A: Additional Tables

Table A.1. Distribution of respondents by the level of degree to the responses to the COVID-19

	How effective do you believe each of these measures is in reducing the spread of the epidemic?							
	Shutting down schools	Shutting down public transport	Shutting down non-essential businesses	Limiting mobility outside home	Forbidding mass gatherings	Introducing fines for citizens that don't respect public safety measures	Requiring masks to be worn outside by everyone	Agree with the approach of the government in response to the pandemic
Not effective at all	4.5	5.7	4.9	4.4	3.7	6.6	7.1	6.1
Slightly effective	10.8	9.6	10.0	8.8	4.6	9.0	9.6	9.2
Moderately effective	18.4	21.3	22.4	20.1	11.8	20.6	18.6	20.5
Very effective	33.8	32.5	31.9	33.8	26.0	29.4	26.7	32.7
Extremely effective	32.6	31.0	30.8	33.0	53.9	34.5	38.0	31.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table A.2. Mean of outcomes and inequality variables

Variables	China	Italy	Japan	Korea	The UK	The US	All sample
Believe in the government in response to the pandemic	4.52	3.73	2.90	3.68	3.89	3.76	3.74
Believe in Shutting down schools	4.00	4.11	3.42	3.68	3.51	4.01	3.79
Believe in Shutting down public transport	3.94	3.97	3.62	3.09	3.77	3.97	3.73
Believe in Shutting down non-essential businesses	4.10	3.97	3.59	3.08	3.78	3.86	3.74
Believe in Limiting mobility outside home	3.99	3.99	3.79	3.36	3.88	3.87	3.82
Believe in Forbidding mass gatherings	4.23	4.40	4.00	4.23	4.24	4.20	4.22
Believe in Introducing fines for citizens that don't respect public safety measures	3.97	4.00	3.44	3.90	3.67	3.59	3.76
Believe in Requiring masks to be worn outside by everyone	4.34	4.04	3.55	4.14	2.88	3.80	3.79
Gini index (in percent) (Solt database)	40.9	33.7	25.6	32.7	33.3	38.2	34.1
Gini index (in percent) (World Development Indicators)	38.5	35.9	32.9	31.6	34.8	41.4	35.9
Ratio $90^{th}/10^{th}$	10.85	14.05	9.10	9.15	9.57	17.94	11.86
Ratio $80^{th}/20^{th}$	6.97	7.02	5.34	5.34	5.93	9.18	6.66
The rate of COVID-19 cases per 1000 people	0.05	1.73	0.13	0.21	1.53	7.28	1.88

Table A.3. Regression of variable 'believe in the government in response to the pandemic' for different countries

Explanatory variables	China	Italy	Japan	Korea	The UK	The US
	(1)	(2)	(3)	(4)	(5)	(6)
Poorest quintile	-0.1545*	-0.2531**	-0.1437	-0.3542**	-0.0550	-0.1976
	(0.0834)	(0.1103)	(0.1231)	(0.1427)	(0.1046)	(0.1224)
Second poorest quintile	-0.2744***	-0.0862	-0.0275	0.0039	-0.0655	-0.3441***
	(0.0772)	(0.1116)	(0.1195)	(0.1359)	(0.1034)	(0.1279)
Middle quintile	-0.3432***	-0.1405	0.0041	-0.0143	-0.1717	-0.2848**
	(0.0882)	(0.1083)	(0.1183)	(0.1280)	(0.1095)	(0.1232)
Second richest quintile	-0.1053	0.0122	-0.0906	-0.0448	-0.0885	-0.1967*
	(0.0661)	(0.1132)	(0.1201)	(0.1259)	(0.1014)	(0.1130)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.7118***	3.1364***	3.5674***	4.1371***	3.7677***	3.4783***
	(0.0842)	(0.1452)	(0.1289)	(0.1696)	(0.1495)	(0.1568)
Observations	994	982	919	1,021	995	1,039
R-squared	0.035	0.024	0.031	0.038	0.056	0.038

Note: The control variables include age groups, gender, urban dummy, country dummies, and COVID-19 infection rates. The richest income quintile is the reference group. Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table A.4. OLS regression of mediating variables on income quintiles

Explanatory variables	Dependent variables								
	Temporary loss of job	Permanent loss of job	Expense change	Saving change	Enjoying more free time	Less pollution	Boredom	Trouble sleeping	Increased conflicts with other people
The rate of COVID-19	0.0005	0.0027**	-0.0050	-0.0035	0.0023	-0.0041***	0.0027*	0.0029**	-0.0001
	(0.0008)	(0.0013)	(0.0035)	(0.0033)	(0.0015)	(0.0014)	(0.0015)	(0.0014)	(0.0008)
Poorest quintile	0.0441***	0.0866***	0.0205	-0.1329***	-0.0509**	-0.0842***	-0.0212	0.0069	-0.0057
	(0.0099)	(0.0178)	(0.0518)	(0.0453)	(0.0198)	(0.0202)	(0.0211)	(0.0181)	(0.0119)
Second poorest quintile	0.0232**	0.0981***	-0.0313	-0.1800***	-0.0155	-0.0299	-0.0299	0.0009	0.0210*
	(0.0093)	(0.0180)	(0.0514)	(0.0449)	(0.0201)	(0.0204)	(0.0209)	(0.0179)	(0.0126)
Middle quintile	0.0062	0.0805***	-0.0475	-0.1481***	-0.0126	-0.0120	0.0174	-0.0029	-0.0083
	(0.0083)	(0.0173)	(0.0501)	(0.0441)	(0.0195)	(0.0198)	(0.0203)	(0.0175)	(0.0115)
Second highest quintile	-0.0032	0.0445***	-0.0696	-0.0340	-0.0148	-0.0170	-0.0125	-0.0096	0.0074
	(0.0081)	(0.0169)	(0.0492)	(0.0435)	(0.0191)	(0.0195)	(0.0200)	(0.0172)	(0.0116)
Richest quintile	*Reference*								
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.0736***	0.2048***	2.6319***	2.7517***	0.5891***	0.4811***	0.6891***	0.4083***	0.1623***
	(0.0154)	(0.0269)	(0.0756)	(0.0695)	(0.0297)	(0.0302)	(0.0299)	(0.0279)	(0.0196)
Observations	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950
R-squared	0.029	0.066	0.023	0.031	0.109	0.108	0.050	0.074	0.023

Note: The control variables include age groups, gender, urban dummy, country dummies. Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A.5. OLS regression of 'Believe in the approach of the government in response to the pandemic' on mediating variables

Explanatory variables	Dependent variable is 'Believe in the approach of the government in response to the pandemic'								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
The rate of COVID-19	0.0046	0.0050	0.0046	0.0047	0.0042	0.0051	0.0045	0.0047	0.0044
	(0.0035)	(0.0035)	(0.0035)	(0.0035)	(0.0035)	(0.0035)	(0.0035)	(0.0035)	(0.0035)
Poorest quintile	-0.1683***	-0.1625***	-0.1786***	-0.1695***	-0.1713***	-0.1663***	-0.1782***	-0.1779***	-0.1796***
	(0.0450)	(0.0452)	(0.0450)	(0.0451)	(0.0450)	(0.0449)	(0.0450)	(0.0450)	(0.0450)
Second poorest quintile	-0.1272***	-0.1145**	-0.1319***	-0.1205***	-0.1303***	-0.1282***	-0.1322***	-0.1324***	-0.1275***
	(0.0449)	(0.0450)	(0.0450)	(0.0449)	(0.0450)	(0.0449)	(0.0450)	(0.0449)	(0.0450)
Middle quintile	-0.1436***	-0.1303***	-0.1442***	-0.1351***	-0.1432***	-0.1433***	-0.1451***	-0.1451***	-0.1469***
	(0.0447)	(0.0446)	(0.0447)	(0.0446)	(0.0446)	(0.0446)	(0.0447)	(0.0447)	(0.0447)
Second highest quintile	-0.0902**	-0.0814*	-0.0884**	-0.0872**	-0.0874**	-0.0871**	-0.0894**	-0.0901**	-0.0877**
	(0.0437)	(0.0437)	(0.0438)	(0.0437)	(0.0437)	(0.0436)	(0.0438)	(0.0437)	(0.0437)
Richest quintile	Reference								
Temporary loss of job	-0.2276***								
	(0.0696)								
Permanent loss of job		-0.1827***							
		(0.0335)							
Expense change			0.0158						
			(0.0124)						
Saving change				0.0664***					
				(0.0138)					
Enjoying more free time					0.1367***				
					(0.0297)				
Less pollution						0.1423***			
						(0.0301)			
Trouble sleeping							0.0065		
							(0.0283)		
Trouble sleeping								-0.0615*	
								(0.0336)	
Increased conflicts with other people									-0.2356***
									(0.0530)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3.7180***	3.7386***	3.6596***	3.5185***	3.6207***	3.6328***	3.6967***	3.7263***	3.7394***
	(0.0676)	(0.0679)	(0.0753)	(0.0766)	(0.0689)	(0.0685)	(0.0701)	(0.0690)	(0.0682)
Observations	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950
R-squared	0.170	0.173	0.169	0.172	0.171	0.172	0.168	0.169	0.172

Note: The control variables include age groups, gender, urban dummy, country dummies. Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix B: Robustness Checks

We briefly discuss next several additional robustness checks. First, there may be a multiple testing problem with the eight outcome variables. Thus, in addition to the p-value of the estimate, which is the false positive rate among all the results, as a robustness check, we compute the q-values which constitute the false positive rate among significant results (i.e., the false discovery rate). The p-values and q-values of the coefficients of the poorest and the second poorest quintiles for these outcomes, shown in Figure B.1 in Appendix B, suggests that the most significant p-values remain significant using the q-values.[6] Second, since the dependent variable is a categorical variable, we also estimate Equation (1) with the alternative ordered logit model as a robustness check. The estimation results, expressed in odd ratios in Table B.1, Appendix B, are qualitatively similar.[7]

Third, we use an alternative data source of Gini index that comes from the World Bank World Development Indicators. Estimates, shown in Table B.2, Appendix B remain qualitatively similar and even statistically stronger for the PCA index (column 2).

Finally, instead of using the Gini index to measure inequality, we use two ratios of the $90^{th}/10^{th}$ and $80^{th}/20^{th}$ income percentiles as robustness checks (since the Solt database does not provide these indicators, we use data from the World Bank World Development Indicators). These ratios focus on the differences between certain income percentiles, so are less general than the Gini index that focuses on the whole income distribution. The results are statistically weaker for the regressions with inequality. Nevertheless, they generally indicate that individuals that support government responses less include those in the second poorest quintile who live in countries with more inequality (Table B.3, Appendix B).

[6] The p-value is adjusted so that the chance of finding a random significant effect is reasonably small. The q-values are computed by Simes' (1986) methods, using the 'qqvalue' command in Stata (Newson, 2011).

[7] For example, the four poorer quintiles have lower odds of support for government responses than the richest quintiles, with their odds ranging from 0.28 to 0.23 lower for the three poorer quintiles, and 0.16 lower for the second richest quintile (column 1).

Table B.1. Ordered Logit Regressions: Odds Ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Explanatory variables	Believe in the government in response to the pandemic	Believe in shutting down schools	Believe in shutting down public transport	Believe in shutting down non-essential businesses	Believe in limiting mobility outside home	Believe in forbidding mass gatherings	Believe in introducing fines for citizens that don't respect public safety measures	Believe in requiring masks to be worn outside by everyone
Poorest quintile	0.7177***	1.0818	0.8743*	0.9602	0.8752*	0.7377***	0.9622	0.8942
	(0.0564)	(0.0844)	(0.0684)	(0.0760)	(0.0687)	(0.0616)	(0.0767)	(0.0721)
Second poorest quintile	0.7602***	0.9720	0.8333**	0.9053	0.8877	0.7407***	1.0318	0.8647*
	(0.0592)	(0.0748)	(0.0649)	(0.0713)	(0.0683)	(0.0611)	(0.0793)	(0.0685)
Middle quintile	0.7654***	1.0972	0.9631	1.0574	1.0653	0.8732*	1.0776	1.0792
	(0.0594)	(0.0802)	(0.0700)	(0.0782)	(0.0786)	(0.0697)	(0.0780)	(0.0827)
Second Richest quintile	0.8356**	1.0452	1.0260	1.0594	1.0527	0.9218	1.0580	0.8825*
	(0.0632)	(0.0737)	(0.0723)	(0.0757)	(0.0770)	(0.0722)	(0.0745)	(0.0650)
Richest quintile		Reference						
Constant cut1	0.0527***	0.0330***	0.0331***	0.0379***	0.0487***	0.0332***	0.1037***	0.0548***
	(0.0067)	(0.0044)	(0.0044)	(0.0051)	(0.0063)	(0.0047)	(0.0130)	(0.0069)
Constant cut2	0.1541***	0.1353***	0.1033***	0.1352***	0.1655***	0.0804***	0.2738***	0.1575***
	(0.0184)	(0.0165)	(0.0129)	(0.0167)	(0.0195)	(0.0106)	(0.0327)	(0.0189)
Constant cut3	0.5483***	0.3991***	0.3543***	0.5038***	0.5664***	0.2277***	0.8781	0.4955***
	(0.0627)	(0.0472)	(0.0427)	(0.0597)	(0.0647)	(0.0287)	(0.1028)	(0.0577)
Constant cut4	2.7862***	1.7983***	1.5146***	2.1510***	2.4672***	0.8030*	3.0735***	1.7194***
	(0.3195)	(0.2105)	(0.1805)	(0.2539)	(0.2822)	(0.0993)	(0.3630)	(0.1996)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,950	5,950	5,950	5,950	5,950	5,950	5,950	5,950
R-squared	0.0721	0.0258	0.0291	0.0344	0.0201	0.0130	0.0129	0.0572

Note: This table reports odds ratio of income quintiles in ordered logit regression of the responses to different government's measures to COVID-19. The control variables include age groups, gender, urban dummy, country dummies, and the rate of COVID-19 cases. The richest income quintile is the reference group. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table B2. OLS regressions with interactions

Explanatory variables	(1) Believe in the approach of the government in response to the pandemic	(2) Index of the variables 'believe to different policies'
The rate of COVID-19 cases per 1000 people (at regional level)	0.0028	0.0057*
	(0.0035)	(0.0030)
Poorest quintile	0.4094	0.1540
	(0.5058)	(0.4649)
Second poorest quintile	1.6277***	0.9897**
	(0.5138)	(0.4613)
Middle quintile	1.3697***	1.0364**
	(0.5123)	(0.4408)
Second richest quintile	0.7137	0.1376
	(0.4964)	(0.4182)
Richest quintile	*Reference*	
Poorest quintile * Gini index	-0.0163	-0.0070
	(0.0140)	(0.0130)
Second poorest quintile * Gini index	-0.0490***	-0.0301**
	(0.0142)	(0.0129)
Middle quintile* Gini index	-0.0422***	-0.0283**
	(0.0142)	(0.0123)
Second richest quintile * Gini index	-0.0223	-0.0036
	(0.0137)	(0.0116)
Control variables	Yes	Yes
Constant	3.8581***	0.0644
	(0.0848)	(0.0788)
Observations	5,950	5,950
R-squared	0.171	0.062

Note: This table reports OLS regression of the responses to government's measures to COVID-19. The control variables include age groups, gender, urban dummy, country dummies, and COVID-19 infection rates. The richest income quintile is the reference group. Gini index is from the World Bank's World Development Indicators. Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table B.3. OLS regressions with interactions between income quintiles and ratio of income percentiles

Explanatory variables	(1) Believe in the approach of the government in response to the pandemic	(2) Index of the variables 'believe to different policies'	(3) Believe in the approach of the government in response to the pandemic	(4) Index of the variables 'believe to different policies'
The rate of COVID-19 cases per 1000 people (at regional level)	0.0033	0.0059*	0.0029	0.0056*
	(0.0036)	(0.0030)	(0.0036)	(0.0030)
Poorest quintile	0.0265	0.0875	0.1143	0.1400
	(0.1736)	(0.1623)	(0.2387)	(0.2214)
Second poorest quintile	0.2547	0.1612	0.5956**	0.3652*
	(0.1764)	(0.1619)	(0.2439)	(0.2215)
Middle quintile	0.1072	0.2485	0.4152*	0.4572**
	(0.1748)	(0.1526)	(0.2414)	(0.2103)
Second Richest quintile	0.1533	0.0968	0.2934	0.1183
	(0.1686)	(0.1462)	(0.2340)	(0.2002)
Richest quintile	*Reference*			
Poorest quintile * Ratio $90^{th}/10^{th}$	-0.0175	-0.0158		
	(0.0147)	(0.0136)		
Second poorest quintile * Ratio $90^{th}/10^{th}$	-0.0329**	-0.0216		
	(0.0151)	(0.0137)		
Middle quintile* Ratio $90^{th}/10^{th}$	-0.0214	-0.0194		
	(0.0148)	(0.0127)		
Second Richest quintile * Ratio $90^{th}/10^{th}$	-0.0205	-0.0075		
	(0.0141)	(0.0121)		
Poorest quintile * Ratio $80^{th}/20^{th}$			-0.0440	-0.0358
			(0.0356)	(0.0331)
Second poorest quintile * Ratio $80^{th}/20^{th}$			-0.1096***	-0.0689**
			(0.0366)	(0.0334)
Middle quintile * Ratio $80^{th}/20^{th}$			-0.0843**	-0.0659**
			(0.0362)	(0.0315)
Second Richest quintile * Ratio $80^{th}/20^{th}$			-0.0575*	-0.0166
			(0.0346)	(0.0297)
Control variables	Yes	Yes	Yes	Yes
Constant	3.8278***	0.0689	3.8675***	0.0855
	(0.0959)	(0.0852)	(0.0937)	(0.0849)
Observations	5,950	5,950	5,950	5,950
R-squared	0.169	0.061	0.170	0.062

Figure B.1. P-value and Q-value of the effect of the poorest and second poorest income quintile on the agreement to the government's response to the COVID-19 pandemic