NBER WORKING PAPER SERIES

COVID-19, GOVERNMENT PERFORMANCE, AND DEMOCRACY:
SURVEY EXPERIMENTAL EVIDENCE FROM 12 COUNTRIES

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ABSTRACT

Beyond its immediate impact on public health and the economy, the COVID-19 pandemic has put
democracy under stress. While a common view is that people should blame the government rather
than the political system for bad crisis management, an opposing view is that dissatisfaction with
government performance may cause deeper dissatisfaction with democracy even in consolidated
democratic regimes. We use a pre-registered survey and experiment covering 12 countries and
22,500 respondents to examine the impact of the pandemic on public attitudes about incumbent
governments, the functioning of democracy and support for different types of regimes. To
estimate causal effects, we leverage experimental treatments using an instrumental variable
design. We find that dissatisfaction with the government, which is equally driven by economic
and health considerations, decreases satisfaction with how democracy works. However, it does
not translate into an embrace of non-democratic regime types.

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1 Introduction

Over the last two years, countries around the world have witnessed a large-scale health and economic crisis due to the COVID-19 pandemic. In the United States, the number of deaths related to COVID-19 has surpassed fatalities in both world wars and the Vietnam war combined. In Europe, many countries have experienced an increase in mortality and a drop in economic activity not seen since the end of the Second World War. Analysts, commentators, and some political leaders have been worried about the effects of the pandemic on democracy. For instance, U.S. president Joe Biden stated that in the wake of the "worst pandemic in a century" democracy has to prove that it "still works,[1]" and German president Frank-Walter Steinmeier diagnosed "a crisis of trust" toward democracy.[2] To combat the crisis, many democratic governments took unprecedented measures, and there is evidence that some autocrats have sought to use the pandemic to enhance their powers (Amnesty International, 2021). However, we know much less about how the pandemic has affected *ordinary people*'s attitudes about democracy.

The scholarly literature suggests divergent mechanisms and responses. One view is that support for democracy in established democracies should be relatively immune to the political impact of the pandemic. Theories of political accountability routinely assume that people are willing to punish badly performing governments without questioning democracy as a system of governance (Besley, 2006, Duch and Stevenson, 2008). Citizens may refrain to update their beliefs about the functioning of democracy because of a single event, when the record of democratic politics is sufficiently long.

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[1] Address to Joint Session of Congress, April 29, 2021, `https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/04/29/remarks-by-president-biden-in-address-to-a-joint-session-of-congress/`

[2] Speech to the nation on April 3, 2021, available from `https://www.bundespraesident.de/`.

Particularly against a backdrop of historically unprecedented decades-long prosperity, attitudes may be entrenched, through socialization and subsequent life experiences (Easton 1975, Fuchs-Schündeln and Schündeln 2015, Pop-Eleches and Tucker 2017; cf. Claassen 2020b). Furthermore, citizens also value democracy for intrinsic reasons (Inglehart and Welzel, 2005, Lipset, 1959, Persson and Tabellini, 2009) and, looking beyond the crisis, they might see long-term extrinsic benefits to maintaining democracy (Sen, 1999).

An opposite view is that dissatisfaction with leaders' response to the pandemic has caused deeper dissatisfaction with democracy. If elected leaders badly manage such an existential crisis, people can conclude that the whole political system is flawed, not just the government of the day. We argue that if things go badly during the pandemic, people may conclude that the buck does not stop with a single leader or government but goes to the broader set of democratic institutions. Compared to normal times, the pandemic provides more information about the functioning of democracy. It tests leaders' ability to handle an unexpected large-scale crisis, concerns multiple salient dimensions, including health and economic well-being, and involves a larger number of salient executive actors across different tiers of government. As a result of such learning, people may grow less satisfied with democracy and more open to non-democratic alternatives: democracy may come of the crisis behaviorally weakened. The consequence would not be a sudden collapse of established democracies, but the erosion of democratic commitments that (further) opens the door to constitutional hardball politics (Graham and Svolik, 2020, Reeves and Rogowski, 2018) and democratic backsliding (Bermeo, 2016, Claassen, 2020a, Levitsky and Ziblatt, 2018, Waldner and Lust, 2018).
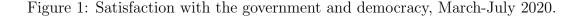
In this paper, we leverage the COVID-19 pandemic to test the generic theory that in times of crisis people learn a lot about the functioning of democracy. Our research design enables us to examine linkages between the pandemic, evaluations of the incumbent government, and support for democracy. Our central question is whether public
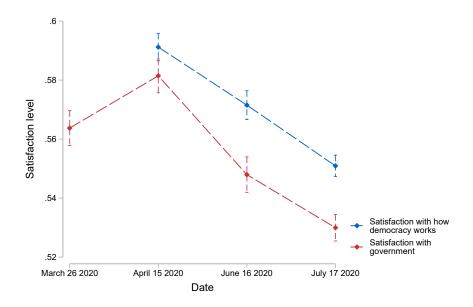
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dissatisfaction with the government during the pandemic affects attitudes about democracy, namely people's satisfaction with how democracy works in their country and their diffuse support for democratic over authoritarian principles of governance in general. We also examine the prior question of how people form beliefs about the performance of the incumbent government. In particular, we ask whether people give differential weight to the health and the economy when evaluating government performance.

Figure 1 illustrates that satisfaction with governments and with democracy declined at comparable speeds during the pandemic. This figure is based on the comparative panel survey that also included our experiment. Averaged across eight old, affluent democracies (Australia, Austria, France, Germany, Italy, New Zealand, the U.K., and the U.S.), it shows the evolution of public satisfaction with the head of the government and democracy between March and July 2020, capturing the first peak of the pandemic. Satisfaction with the incumbent moderately increased in the first two weeks of April 2020. This is consistent with a boost in popularity due to the lockdowns enacted at the time in a majority of the countries (Bol et al., 2021). Thereafter, however, satisfaction with the government declined steadily by about 9% in total, dropping 6% below the starting point. The decline in satisfaction with democracy shows the same negative slope. In line with the concern raised by president Biden and others, it decreased by 7% in just three months.[3]

Obviously, these aggregate data are open to competing interpretations and addressing our research questions requires a more disaggregated and controlled approach. At the individual level, it is challenging to assess the impact of satisfaction with the incumbent government on democracy. With observational data, it is hard to rule out reverse causality or omitted variable bias (Kostelka and Blais, 2018). For instance,

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[3] While not included in Figure 1 because of missing survey data for March and April 2020, our experimental analysis also includes Brazil, Poland, Spain, and Sweden.

Figure 1: Satisfaction with the government and democracy, March-July 2020.

Note: Both variables range from 0 to 1 (see text for details). Countries: Australia, Austria, France, Germany, Italy, New Zealand, the U.K., and the U.S. Equal weights given to each country. Averages with 95% confidence Intervals.

people already disenchanted with democracy may be prone to view the government's response in a negative light. Moreover, the policy response may itself have been shaped by the strength of democratic attitudes and the functioning of democracy, reflecting, in turn, preexisting differences in democratic institutions and their preconditions (Norris, 2012). Third factors may also simultaneously drive people's views on their government and on democracy. For example, the literature has found that people who vote for the winner tend to be more satisfied with democracy than electoral losers (Anderson and Guillory, 1997).

To circumvent these issues, we measure the effects of the pandemic on peoples'

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[4] See the Coronavirus disease (COVID-19) situation report of the WHO: `https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200712-covid-19-sitrep-174.pdf?sfvrsn=5d1c1b2c_2`

satisfaction with their government and with democracy using a pre-registered survey experiment embedded in a comparative survey with 22,500 respondents. The survey was administered during the pandemic in 12 countries which accounted for more than two thirds of the officially reported COVID-19 related deaths at that time.[4] The countries are Australia, Austria, Brazil, France, Germany, Italy, New Zealand, Poland, Spain, Sweden, the U.K., and the U.S. The experiment randomly varies vignettes people read about the pandemic. These treatments provide information on and make salient the comparative magnitude of the health and economic crisis in the country. In some groups, the vignettes also attribute blame or praise to the government. Based on this experimental design, our analysis proceeds in two steps. First, we study the direct effects of the treatments and show that they shape people's beliefs about the severity of the crisis and their evaluation of the government's response. Second, the treatments also serve the purpose of providing an exogenous source of variation to causally identify the effects of satisfaction with the government on satisfaction with democracy and support for alternative regime types. Instrumental variable estimates reveal that the evaluation of the government's response on the health and economic dimensions have equal weight on the overall satisfaction with the government. This suggests that people are attentive to the multi-dimensional aspect of the crisis. Moreover, we find that lower satisfaction with the government decreases satisfaction with how democracy works. However, it does not translate into an embrace of non-democratic regime types. These results are robust to different estimation strategies and to excluding younger democracies from the sample.

The worry that crises might undermine ordinary people's commitment to democracy is, of course, not new. While research on past crises is far from settled, several studies have found that the Great Depression in the 1930s or the Great Recession after 2008 were associated with lower support for democratic actors and institutions (Armingeon and Guthmann 2014; De Bromhead, Eichengreen and O'Rourke 2013; Guiso et al.

2019; Quarantana and Martini 2017; but see Bermeo 2003). Other studies uncovered a relationship between economic recessions and democratic breakdowns around the world since 1950 (Przeworski et al., 2000). Building on this line of work and on the strands of literature discussed above, we make several contributions. First, we clarify theoretically that people changing their attitudes about democracy during the pandemic can be a rational response to comparatively bad government performance even in *consolidated* democracies. This stands in contrast both to theories emphasizing that such learning should be restricted to new democracies (Meirowitz and Tucker, 2013, Svolik, 2013) and to the view that people blindly punish incumbents and institutions when times are bad (Achen and Bartels, 2016).

Second, much of the literature studies economic crises, while evidence on past pandemics is relatively scarce. Research on the Spanish influenza, which ravaged the world in 1918-1920, has found only small effects on electoral support for incumbents in the U.S. despite a comparably large mortality (Arroyo Abad and Maurer 2020; Achen and Bartels 2016, 139-142). There are several reasons why the lessons from the COVID-19 pandemic may be different: it does not stand in the shadow of a world war, and advances in science and medicine as well as cross-country comparisons provided by the media have generated different expectations about policy responses.[5]

Third, our research design combines the advantage of survey data with that of experimentation on a fairly large comparative scale and it leverages a design-based instrumental variable approach to test hypotheses about the linkage between evaluations of policies, governments, and democracy. While there is theoretical and empirical controversy over whether government performance has a causal impact on individual

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[5] Our paper complements work on democracy and the COVID-19 pandemic examining, for instance, trade-offs between civil liberties and health in the crisis response (Alsan et al., 2020, Arceneaux et al., 2020). For an overview over the rapidly growing political science literature on the pandemic, see Barberia, Plümper and Whitten (2021).

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support for democracy and the literature has produced mixed results, several recent studies using large collections of surveys found that summary measures of government effectiveness and economic performance are significant predictors of satisfaction with democracy or more diffuse regime principles (Armingeon and Guthmann, 2014, Claassen and Magalhães, 2021, Magalhães, 2014, Norris, 2011). Our findings are consistent with these results, and extend them to health performance. Moreover, our design makes it easier to rule out alternative interpretations. To the best of our knowledge, our study is the first to employ randomized treatments in order to estimate the causal impact of government performance evaluations on evaluations of democracy.

2 Theoretical framework

A large tradition of scholarship argues that people's support for democracy "will normally be independent of outputs and performance in the short run." (Easton, 1975, 445). In line with this, it is commonly assumed that people blame the government for poor performance, not the political system itself (Svolik 2013, 685, Duch and Stevenson 2008). However, empirical research indicates that attitudes are not immutable in the short run (Armingeon and Guthmann, 2014, Magalhães, 2014, Norris, 2011). We hypothesize that times of crisis can reveal strengths or weaknesses of democracies that are not apparent in normal times. This learning may happen even in established democracies with a track record of government alternation, and it is not necessarily driven by blind retrospection or myopia. Easton (1975, 446) already argued that in the long-run government performance is likely to spill over into democratic support (also see Magalhães, 2014). He also suggested there may be some instances when people update their beliefs about democracy relatively quickly in response to bad government performance. Our conceptual framework specifies several mechanisms through which this may occur in times of crisis.

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One mechanism is straightforward. In normal times, people have few incentives to collect costly information about the performance of policymakers and institutions. The problem of rational ignorance in democratic politics is highlighted by Downs (1957) and many scholars in his footsteps. The resulting asymmetric information between citizens and leaders can lead to well-known problems of adverse selection and moral hazard. People will still be exposed to some performance information as a result of civic duty, personal interest, social interactions, public broadcasting, and the bundling of news and entertainment. Information about outcomes that is benchmarked across countries or over time can be especially useful (Aytaç, 2018, Kayser and Peress, 2012). However, during crises, political choices are more salient, and more information becomes available. In Europe and the U.S., the COVID-19 pandemic has dominated media coverage like no event since the Second World War.[6] Moreover, anxiety generated in a crisis can foster interest in politics (Albertson and Gadarian, 2015). In theories of accountability, people are better able to learn about the quality of elected leaders when they are more likely to receive and pay attention to information about policies and outcomes (Besley, 2006). This may also lead to more learning about the effectiveness of democratic institutions.

Theoretically less obvious, a family of complementary mechanisms concerns a greater opportunity to learn about democracy for a given probability of receiving information about a country's performance. In selection theories of democratic politics, citizens are mainly concerned with learning about the quality of elected leaders (Besley, 2006, Duch and Stevenson, 2008). In the background, it is assumed that each democracy has a fixed capacity to produce good leaders. Relaxing this assumption, it is realistic to think that people may also be uncertain about the ability of democracy to produce good leaders (Meirowitz and Tucker, 2013). Relatedly, there is uncertainty about the

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[6] *The Economist*, "The biggest story ever?", December 19th, 2020.

ability of democracy to control moral hazard, which is the focus of another strand of the accountability literature (Ferejohn, 1986). Thus, a pandemic may enhance learning about the functioning of democracy because it sheds light on its ability to foster leaders that can cope with an existential crisis. This logic is developed formally using a Bayesian model of learning in Online Appendix (OA) Section A. Here, we focus on the theoretical intuition and its observable implications.

First, a pandemic critically tests the ability of chief executives (i.e., prime minister or president) to manage a crisis, which can provide an unusual window into the government's responsiveness to fundamental needs and interests of the population (Mansbridge, 2003). Pandemics, natural disasters, or other crises require fast decisions with large stakes and raise the question of whether the state can protect its citizens when their lives or livelihoods are immediately at risk. They may reveal deficits or strengths of political leadership, effort as well as competence, that are less visible during normal times, but relevant all the while (Ashworth, 2012, Bechtel and Hainmueller, 2011). Fortunately, such crises are less frequent than government turnover in many countries. Therefore, prior attitudes about whether democracy produces leaders able to manage a large-scale crisis are based on few and often quite distant events, and people learning about their chief executive in the pandemic can spill over into beliefs about democracy.

Second, a crisis can lead to an updating of democratic satisfaction because it expands the set of publicly salient policy dimensions and the set of salient executive actors involved in policy making. Following a large literature, suppose that in normal times a country's well-being is assessed by citizens mainly based on how well the economy is doing. A set of policymakers is responsible for this domain. In models of parliamentary governance and economic voting, for instance, the prime minister and the finance ministers are key players (Duch and Stevenson, 2008, Laver and Shepsle, 1990). When people receive information that the country's economy is doing comparatively poorly, they can draw an inference about the quality of key policymakers in this domain. They

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may go one step further and think about the functioning of democracy. Should they change their belief that democracy is capable of addressing the country's problems? In any normal year, updating one's beliefs about democracy is usually bound to be small given the limited number of involved actors and the weight of history.

In contrast, consider a crisis like the COVID-19 pandemic. Now, the country's well-being is assessed by citizens not just in terms of the economy but also in terms of health outcomes. The set of executive players that becomes salient (in terms of media coverage and in the eyes of voters) increases. At minimum, it also includes the health minister and the associated bureaucracy. In the pandemic, health ministers and health officials were in the public spotlight as rarely before, from Anthony Fauci in the U.S. to Olivier Véran in France and Jens Spahn in Germany, and they had to make key decisions. Moreover, the design, coordination, and implementation of policies addressing the crisis, like lockdowns, frequently also involved state-level premiers or governors. As a result, when people receive information that their country is doing comparatively badly during a pandemic, they have more reason to assess democracy. Suppose that relative performance information is the same as before (e.g., the country is at the bottom of the table). What matters is that bad performance can now be attributed to a larger number of executives. It is less plausible to excuse bad outcomes as being the result of a bad apple that can be replaced in the next election. Rather than simply making an inference about the incumbent chief executive, people may have learned that democracy does not function as well as they previously thought. Conversely, if performance is comparatively good, there is more reason to positively update not just about the president or prime minister of the day but about democracy

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[7] Governments may become more important relative to parliament during crises. But even in normal times, voters are usually assumed to attribute blame to the government and in particular the chief executive (Duch and Stevenson, 2008). The argument is that relative to this baseline, the set of publicly salient executive actors increases in a pandemic.

in their country.[7] While canonical theories of accountability rightly highlight that having many decision makers undermines learning about the quality of a particular incumbent (Duch and Stevenson, 2008, Powell and Whitten, 1993), the multifaceted character of policy making during pandemics increases the strength of the signal about the political system's ability to select and incentivize politicians.

In sum, a crisis year reveals more information than other years about how well democracy works, even when holding the exposure to information constant. A central empirical implication of our theoretical framework is that even in established democracies people may reassess their beliefs about democracy in a pandemic. In particular, comparatively more negative assessments of government performance during the pandemic should lead to a more negative assessment of how democracy works in their country. While testing this hypothesis is challenging, our experimental design described below enables us to control for variation in pre-treatment exposure to information and other potential unobserved confounders. How much beliefs actually change is theoretically ambiguous. For instance, without making additional assumptions, it is impossible to predict whether people that become disenchanted with democracy in their country as a result of the pandemic will also become more supportive of non-democratic regimes, such as rule by a strongman or technocrats. This is an empirical question. Another implication, which we also test, is that people should be paying attention both to the economic and the health dimension of the crisis rather than focus on one or the other.

3 Data and experimental design

3.1 Cross-country survey

Our experiment was embedded in a cross-country survey conducted simultaneously in 12 countries in July 2020: Australia, Austria, Brazil, France, Germany, Italy, New Zealand, Poland, Spain, Sweden, the U.K., and the U.S. For each country, Table 1

indicates the exact dates at which the survey was administered, the number of respondents, and the COVID-19 mortality rate at the time of the survey. Our experiment includes some of the countries with the highest rates of COVID deaths rate per capita (e.g., Spain and the U.K.) as well as countries with very low infections and deaths rate (e.g., Australia and New Zealand). This reinforces the external validity of our results. All countries except for Brazil are relatively rich, and all are members of the OECD with a long history of democracy. In that sense, they may be least likely cases for finding treatment effects.

The surveys were fielded on the internet by established commercial polling companies (CSA Research in Australia and in the U.S., Netquest in Spain, and IPSOS in all other countries).[8] All participants gave informed consent to participate. The treatments do not involve deception. Thanks to quota sampling, the sample is representative of the census population in each country along gender, age, occupation, region, and level of urbanization. Target sample sizes for the experiment were about 2,000 respondents in France, Germany and the U.S., 1,500 in Spain and 1,000 respondents in the remaining countries. As treatments were initially not cross-randomized as instructed in France, the survey company ran the correct experiment among a larger sample of respondents, none of whom participated in the faulty survey.

3.2 Experimental design

In the middle of the survey, each respondent received two messages: one of four possible messages on health and one of four possible messages on the economy. The two messages were cross-randomized, for a total of 16 message combinations. The probability of receiving each of the health (resp. economy) messages was equal to one

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[8] Canada was excluded from the analysis as the cross-randomization was not implemented properly.

Table 1: Survey dates, number of observations, and number of COVID-19 deaths per million inhabitants in each country.

	Dates	Sample size	Deaths per million
Australia	July 16, 2020	1,010	4.5
Austria	July 16-20, 2020	1,000	80.1
Brazil	July 16-17, 2020	1,002	357.2
France	July 9-19, 2020	9,081	446.9
Germany	July 16-17, 2020	2,001	109.4
Italy	July 16-17, 2020	1,000	579.8
New Zealand	July 16-20, 2020	1,000	4.5
Poland	July 16-17, 2020	1,000	42.0
Spain	July 6-10, 2020	1,441	604.7
Sweden	July 16-20, 2020	1,000	544.7
U.K.	July 16-17, 2020	1,000	615.7
U.S.	July 17-22, 2020	2,006	423.6
Total		22,541	

Notes: The deaths numbers come from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (Dong, Du and Gardner, 2020).

fourth, resulting in sixteen groups of equal size.

The four possible messages on health (resp. the economy) are as follows:

- A positive message on the health (resp. economic) situation in the country, as compared to previous health (resp. economic) crises, without any mention of the government (group TH1 (resp. TE1)).

- A positive message on the health (resp. economic) situation in the country, as compared to previous health (resp. economic) crises, and praising the government for it (group TH2 (resp. TE2)).

- A negative message on the health (resp. economic) situation in the country, as compared to previous health (resp. economic) crises, without any mention of the government (group TH3 (resp. TE3)).

- A negative message on the health (resp. economic) situation in the country, as compared to previous health (resp. economic) crises, and assigning blame to the

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government for it (group TH4 (resp. TE4)).

The statements were written to ensure as much comparability as possible between countries, but they were tailored to each country's context (e.g., the COVID-19 mortality rate in the country). All statements are based on factual information, namely COVID-19 and previous pandemic numbers from John Hopkins University, and predicted GDP growth from the April 2020 World Economic Outlook of the IMF. While interviewees can be expected to have had extensive information about the health and economic crises before the survey, the statements were intended, first, to make some aspects of these crises and of the government's response salient in their mind, as they responded to the questions of interest; and, second, to provide factual information about the *relative* magnitude of the crisis which might have been new for some respondents. Specifically, we put publicly available information in a comparative and historical perspective, drawing on benchmarking theories of how people evaluate government performance as well as experimental tests thereof (Aytaç, 2018, Kayser and Peress, 2012, Olsen, 2017). For instance, the vignette emphasizing the gravity of the health situation in the U.K. compared the mortality from COVID-19 by the time of the survey with the much lower mortality of the flu in a normal year. By contrast, the U.K. health treatment de-emphasizing the gravity of the health situation compared the mortality from COVID-19 in the country with the four-times higher mortality during the 1918 Spanish influenza pandemic and the mortality from the 1968 flu.

The full text of all messages used in all countries is shown in OA B. Here, we provide the text of four of the eight messages in the U.K. (TH1, TH4, TE2, and TE3), to fix ideas:

- *"By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed four times as many people in the country. More*

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recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten." (TH1)

- *"By the end of June, the number of deaths due to COVID-19 in the country was more than 40,000, which is twenty thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. Many observers blamed the government for taking too long to provide enough tests, masks, and other health supplies for the population. They also pointed out that the government's response to the health crisis had been slower and less successful than in other countries in the region."* (TH4)

- *"In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Britain, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country."* (TE2)

- *"In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer."* (TE3)

In addition to the cross-randomization of the health and economic statements, which of these two statements the respondent saw first was also randomized.

3.3 Outcome variables

After reading the statements, respondents were asked a range of questions, identical in all countries, about their perception of the seriousness of crisis, their satisfaction with the health and economic measures undertaken by the government, their overall satisfaction with the government head as well as causally more distant measures concerning the functioning of democracy and the support for various political regimes. These questions reflect the theoretical focus on assessing the causal chain linking evaluations of concrete government performance to overall satisfaction with the government and satisfaction with and support for democracy.

Concerning attitudes with respect to democracy, we follow the literature and distinguish democratic performance from more diffuse ideals and principles (Easton, 1975, Norris, 2011). Satisfaction with democracy is a widely used item that taps into satisfaction with how democracy works in a particular country. Respondents are asked: "How satisfied are you with the way democracy works in your country?" Answers are recorded on a 0 to 10 scale, where 0 means not satisfied at all and 10 means completely satisfied. Satisfaction with democracy is widely regarded as an indicator of how people evaluate the performance of a democratic regime in practice (Linde and Ekman, 2003, 405). It falls between "more diffuse support for [...] regime principles and more specific support for regime institutions and political actors" (Kostelka and Blais 2018, 371; also see Anderson and Guillory 1997, Norris 2011).[9] Relatedly, we measure respondents' perceived efficacy in the democratic political process, based on two established items: whether people think that "politicians do not care much about what people like me think." and whether politics is perceived as "so complicated that a person like me can't really understand what's going on." The first item concerns internal efficacy or how

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[9] Easton defines support as an attitude by which a person evaluates a (political) object and that may have behavioral consequences (1975, 436).

competent people feel in their political evaluations. The second item concerns external efficacy or the perceived responsiveness of politicians.

We also want to assess if pandemic-induced skepticism about the way democracy works translates into lower support for democracy as a regime type. A person may be dissatisfied with the functioning of democracy in the pandemic but continue to defend democratic principles and to reject authoritarian alternatives. To be able to detect satisfaction with how democracy works and support for this form of regime, we explicitly measure support for democracy and for alternative regime types, employing items regularly used in the *World Values Survey* and other surveys (Linde and Ekman, 2003, Norris, 2011). On the screen, respondents read the following text: "There are various types of political systems. What do you think about each as a way of governing this country? For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country?" Then they were asked about four different systems: (i)"Having a strong leader who does not have to bother with parliament and elections"; (ii) rule by experts; (iii) rule by the army; (iv) a democratic political system.

Public satisfaction with and support for democracy can be thought of as a canary in the coal mine (Norris, 2011). An erosion in public support may make democracy less robust to crises. In line with this, a recent panel study of 135 countries finds that, adjusting for country fixed effects and several time-varying controls, changes in public support are systematically related to subsequent changes in democracy, implying that declining support may lead to democratic backsliding (Claassen, 2020a).

3.4 Verifying randomization

We conduct two types of tests to verify the randomization. First, Table 2 presents the joint distribution of economic and health treatments. As expected, all sixteen groups have equal size.

Table 2: Joint distribution of the economic and health treatments.

Value of TH	Value of TE									
	1		2		3		4		Total	
	%	%	%	%	%	%	%	%	%	%
1	25.1	25.4	25.0	25.1	24.6	25.0	24.4	24.6	24.8	100.0
2	26.3	26.0	24.7	24.3	24.8	24.7	25.4	25.1	25.3	100.0
3	24.5	24.6	25.9	25.9	25.4	25.7	23.7	23.8	24.9	100.0
4	24.1	24.1	24.3	24.2	25.2	25.4	26.4	26.4	25.0	100.0
Total	100.0	25.0	100.0	24.8	100.0	25.2	100.0	25.0	100.0	100.0

Notes: Starting from the upper left corner: the first column indicates the distribution of the health treatment among respondents who received the economic treatment TE1. The second column indicates the share of respondents that received the economic treatment TE1 among those who received the health treatment TH1 (first line), TH2 (second line), TH3 (third line), and TH4 (fourth line).
For instance, 25.1% of those who received $TE = 1$ also received $TH = 1$ and 25.4% of those who received $TH = 1$ also received $TE = 1$.

Second, we check that the following covariates are balanced across treatments: gender, age, occupation, religion, health status, race, income and education.[10] OA Table E.1 shows the mean and the standard deviation of each variable as well as the F-statistic from a regression of the variable on all sixteen treatment dummies and its associated p-value. Overall, respondents in the different treatment groups are very similar. The F-statistic of one out of 28 variables is significant at the 10% level, and none is significant at the 5% level, as would be expected.

4 Empirical strategy and results

The empirical analysis sequentially addresses three related research questions. First, do the experimental treatments affect how respondents perceive the severity of the crisis and assess the government's policy response? Second, how much importance do

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[10] Partisanship and political ideology were asked after the part of the questionnaire dedicated to the experiment. They are therefore not included as pre-treatment controls. But all of our results are robust to their inclusion.

respondents give to health compared to economic considerations when evaluating the overall performance of the government during the pandemic? Third, do evaluations of government performance affect perceptions and attitudes about democracy, specifically satisfaction with how democracy works, political efficacy, and support for democratic regime type?

Given the experimental design, we address the first question by simply comparing outcomes across treatment groups. We use OLS regressions with and without controlling for pre-treatment covariates. The second and third research questions explore effects on variables that are not directly manipulated by the experiment. To address them, we leverage exogenous variation in the explanatory variables of interest that is induced by the treatments, using an instrumental variable strategy. This strategy only works because the treatments did move beliefs about the severity of the crisis and the government response, as we show in the first part of the analysis. Details on the strategy are provided in Section 4.3.

To facilitate the interpretation of the results, we use the following treatment variables:

- "Gravity health": a dummy equal to 1 for the groups TH3 and TH4, which received a negative message on the gravity of the health situation (whether or not this message mentioned the government's response);

- "Gravity economy": a dummy equal to 1 for the groups TE3 and TE4, which received a negative message on the gravity of the economic situation (whether or not this message mentioned the government's response);

- "Praising health policy": a dummy equal to 1 for the group TH2, which received a message praising the government's health response to the crisis;

- "Praising economic policy": a dummy equal to 1 for the group TE2, which received a message praising the government's economic response;

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- "Blaming health policy": a dummy equal to 1 for the group TH4, which received a message blaming the government's health response;

- "Blaming economic policy": a dummy equal to 1 for the group TE4, which received a message blaming the government's economic response.

4.1 Direct impact of the treatments on beliefs

To estimate the average effect of the treatments on beliefs about the gravity of the crisis, we estimate the following OLS regression:

$$B_i^K = \beta_0 + \beta_1 \, GravityEcon_i + \beta_2 \, GravityHealth_i + \gamma X_i + u_i, \tag{1}$$

where $B_i^K = \{B_i^H, B_i^E\}$ is respondent i's belief on the gravity of the health (resp. economic) crisis; *GravityEcon* and *GravityHealth* are defined above and X_i is a vector of controls. Here and in all analyses below, we use robust standard errors.[11] Note that we are not using all the experimental variation at this stage. Indeed, our objective is to test whether beliefs about the severity of the crisis are affected by treatments emphasizing the gravity of the health and economic crises, regardless of signals provided about the government response.

The results are shown in Table 3. The treatments have the expected effect: making the gravity of the health and economic crisis more salient increases the fraction of people considering its health and economic consequences as very serious by 6.9 percentage points (28% of the mean) and 8.4 percentage points (23%), respectively. Both effects are significant at the 1% level, and robust to the inclusion of sociodemographic controls and country fixed effects.

We only find limited evidence of spillovers between health and the economy. Mes-

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[11] Standard errors are not clustered since the randomization was conducted at the individual level.

sages about the gravity of the economic crisis have a negligible and non-significant impact on respondents' assessment of the severity of the health crisis. Health messages do have a statistically significant impact on respondents' beliefs about the severity of the economic crisis. This effect may result from the fact that people exposed to information on the gravity of the health situation anticipate policy responses which will be costly economically. However, this effect is only one third of the impact of the negative economic messages on the same outcome.

Table 3: Impact on the perceived seriousness of the health and economic consequences of the crisis.

	Very serious health consequences		Very serious economic consequences	
	(1)	(2)	(3)	(4)
Gravity health	0.070***	0.069***	0.024***	0.024***
	(0.006)	(0.005)	(0.006)	(0.006)
Gravity economy	0.008	0.007	0.083***	0.084***
	(0.006)	(0.005)	(0.006)	(0.006)
Individual controls		X		X
Country FE		X		X
Observations	22,540	22,540	22,538	22,538
R2	0.007	0.121	0.008	0.071
Outcome mean	0.244	0.244	0.370	0.370

Notes: The dependent variable for columns 1 and 2 (resp. 3 and 4) is a dummy equal to 1 if the respondent considers the health (resp. economic) consequences of the crisis as very serious, and 0 otherwise. Question: "Would you say that the consequences of the coronavirus epidemic for health (resp. the economy) in [country] are today [Very serious / Quite serious / Somewhat serious / Not serious / Not at all serious] ?" Columns 2 and 4 control for country fixed effects and the following individual controls: age (decade dummies), income (quartile dummies), gender, education (dummies for high-school diploma and college degree), religion dummies, job status (part-time, full-time, unemployed, self-employed, out of labor force), health status, race (White, Black, Latino, Asian), occupation (white-collar, blue-collar and service worker dummies). *** $p < .01$, ** $p < 0.05$, * $p < .1$

4.2 Direct impact of the treatments on satisfaction levels

Next, we estimate the effect of the treatments on respondents' level of satisfaction with the health and economic measures taken by the government to address the crisis. We use specifications of the form in Equation (2):

$$S_i^K = \alpha_0 + \alpha_1 \, GravityEcon_i + \alpha_2 \, GravityHealth_i + \alpha_3 \, BlameEcon_i + \alpha_4 \, BlameHealth_i$$
$$+ \alpha_5 \, PraiseEcon_i + \alpha_6 \, PraiseHealth_i + \gamma X_i + u_i, \quad (2)$$

where $S_i^K = \{S_i^H, S_i^E\}$ is the respondent's level of satisfaction with the health (resp. economic) measures, and *GravityHealth*, *GravityEcon*, *BlameHealth*, *BlameEcon*, *PraiseHealth*, and *PraiseEcon* are defined above.

Table 4 shows the results of Equation (2) as well as linear combinations of the estimates. Specifically, we report the difference between the effect of messages praising and blaming the government's health (resp. economic) response to the crisis and test whether this difference is statistically significant. Overall, the vignettes produced effects consistent with intuition: messages blaming the government's health and economic response decrease respondents' satisfaction with these respective policies by 0.030 and 0.014 points on variables ranging from 0 to 1 (5.9% and 2.8%), respectively, in comparison with messages praising the government. These effects are robust to including controls, and significant at the 1 and 5% levels, respectively. They are smaller than the point estimates shown in Table 3, suggesting that respondents' evaluation of the government is less malleable than their perception of the gravity of the crisis. Once again, we observe some evidence of a spillover effect from the health dimension to the economic one but not the reverse: blaming instead of praising the government's health response decreases respondents' satisfaction with economic policies by 0.015 points, which is significant at the 5% level. Finally, vignettes which simply provide information about the gravity of the crisis but without praising or blaming the government do not have any significant effect on respondents' assessment of the government's response.

Table 4: Impact on satisfaction with the government's response to the crisis.

	Health satisfaction		Economic satisfaction	
	(1)	(2)	(3)	(4)
Gravity health	-0.006	-0.005	0.003	0.004
	(0.005)	(0.005)	(0.005)	(0.005)
Blaming health policy	-0.016***	-0.018***	-0.007	-0.007
	(0.005)	(0.005)	(0.005)	(0.005)
Praising health policy	0.012**	0.013***	0.006	0.007
	(0.005)	(0.005)	(0.005)	(0.005)
Gravity economy	-0.001	-0.001	-0.008	-0.008*
	(0.005)	(0.005)	(0.005)	(0.005)
Blaming economic policy	0.000	0.000	-0.010**	-0.010**
	(0.005)	(0.005)	(0.005)	(0.005)
Praising economic policy	0.004	0.004	0.004	0.004
	(0.005)	(0.005)	(0.005)	(0.005)
Individual controls		X		X
Country FE		X		X
Observations	22,541	22,541	22,541	22,541
R2	0.002	0.112	0.001	0.096
Outcome mean	0.509	0.509	0.502	0.502
Linear combination of estimates:				
Blaming - Praising health policy	-0.028***	-0.030***	-0.013*	-0.015**
	(0.007)	(0.007)	(0.007)	(0.007)
Blaming - Praising economic policy	-0.004	-0.004	-0.014**	-0.014**
	(0.007)	(0.007)	(0.007)	(0.007)

Notes: The dependent variable for columns 1 and 2 (resp. 3 and 4) is a variable ranging from 0 to 1 (with possible values: 0, 0.1, 0.2, etc.), measuring respondents' level of satisfaction with the health (resp. economic) measures taken by the government to mitigate the COVID-19 pandemic.
Question: "Are you satisfied with the health (resp. economic) measures taken by the government to mitigate the COVID-19 pandemic?"
Individual controls as in Table 3. *** $p < .01$, ** $p < 0.05$, * $p < .1$

4.3 Weights given to health and the economy in the overall evaluation of the government

We now ask how much weight respondents put on their satisfaction with the government's health and economic measures when providing an overall evaluation of the head of government. As mentioned in Section 2, we should expect respondents to pay attention to both dimensions if they use the pandemic to update their beliefs about multiple dimensions of policy-making instead of blindly blaming the government.

We test this claim by regressing overall satisfaction with the head of the government (S_i^G) on satisfaction with the health and economic responses, with specifications of the following form:

$$S_i^G = \alpha_0 + \alpha_1 S_i^H + \alpha_2 S_i^E + v_i. \tag{3}$$

We instrument S_i^H and S_i^E, which are endogenous, with dummies for each of the sixteen treatment conditions. The results can be interpreted causally under the following conditions: exogeneity of the instruments, exclusion restriction, and relevant first stage. First, given the randomization, the instruments are exogenous by design. Second, the exclusion restriction requires that the treatments only affect respondents' level of satisfaction with the head of the government through their effects on satisfaction with the health and economic responses. While this assumption is not directly verifiable (by definition), the fact that the texts of the vignettes focus on the health and economic dimensions of the crisis and that they only praise or criticize the government for policies implemented on these two dimensions makes it plausible. Third, Table 4 already shows that the treatments shape health and economic policy evaluations: we have a first stage. However, given that our experiment includes sixteen treatment groups and, by design, the difference in the treatment between two given groups can be small, our strategy is at risk of weak instruments issues (Angrist and Pischke, 2008). This does not affect the consistency of the estimates, but can lead to incorrect standard errors. Therefore, we also use an alternative specification, in which we instrument our two independent variables (satisfaction with the health and economic responses) with only two summary variables. The first variable provides a univariate score summarizing the intensity of the four health treatments (SSH), and the second variable summarizes the intensity of the four economic treatments (SSE). Each variable ranges from 0, which corresponds to a negative message that assigns blame to the government on the corresponding dimension, to 1, which corresponds to a positive message that praises the government; other treatments receive intermediary values. In Section 4.4, where we use a unique

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independent variable, we go one step further and summarize both the economic and health treatments using a single instrument (SumStat). The exact mapping between the treatment groups and the values given to these two summary variables is shown in OA Tables D.1 and D.2.[12]

As shown in OA Table E.2, both the sixteen treatment dummies and the two summary scores have a significant impact on the health and economy satisfaction scores. As expected, the Cragg-Donald statistic associated with the first stage using the sixteen treatment dummies is low, due to the large number of instruments: in fact, it is lower than the rule of thumb threshold of 10 (Stock, Yogo et al., 2005). By contrast, the Cragg-Donald statistic associated with the first stage using the two summary statistics is above that threshold: Using these summary statistics successfully addresses the concern of weak instruments.

The instrumental variable estimates are displayed in Table 5. Reassuringly, the results are very similar whether the satisfaction with the health and economic responses are instrumented with the sixteen treatment dummies (columns 1 and 2) or with the two summary statistics (columns 3 and 4), and with controls (columns 2 and 4) or without (columns 1 and 3). In our preferred specification, shown in column 4, one point increases in satisfaction with the health or economic response increase overall satisfaction with the head of the government by 0.31 and 0.38 points, respectively. The point estimates on health and economic satisfaction are significant, in five out of eight cases, at 1%, and they are never significantly different from each other. Thus, on average, respondents place approximately equal weight on the health and economic dimensions when they assess the overall action of the government.

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[12] Our approach is related to studies of health risk factors that combine multiple genetic instruments into a single univariate score. Simulations show that that such scores work well in achieving low bias and nominal coverage (Burgess and Thompson, 2013).

Table 5: Impact on overall satisfaction with the head of government - 2SLS.

	Satisfaction with the head of government			
	(1)	(2)	(3)	(4)
Economic satisfaction	0.387**	0.393***	0.304*	0.313*
	(0.151)	(0.145)	(0.178)	(0.171)
Health satisfaction	0.378***	0.377***	0.390***	0.383***
	(0.111)	(0.106)	(0.128)	(0.121)
Individual controls		X		X
Country FE		X		X
Observations	22,541	22,541	22,541	22,541
Outcome mean	0.458	0.458	0.458	0.458
Linear combination of estimates:				
Difference Economic satisfaction	0.009	0.016	-0.086	-0.071
-Health satisfaction	(0.232)	(0.223)	(0.262)	(0.252)
Instruments	16 IVs	16 IVs	2 SumStats	2 SumStats
Cragg-Donald statistic	2.550	2.898	12.221	14.164

Notes: The dependent variable is a variable ranging from 0 to 1, measuring the level of satisfaction with the head of government (President / Prime minister / Chancellor). Individual controls as in Table 3.
Question: "Generally speaking, are you satisfied or dissatisfied with the action of Prime Minister/Chancellor/President [name]?"
Satisfaction with health and satisfaction with the economy are instrumented with the sixteen treatment groups (columns 1 and 2) or with the two summary statistics (columns 3 and 4). *** $p < .01$, ** $p < 0.05$, * $p < .1$

4.4 Government performance and democracy

We finally arrive at the most important part of our analysis: we test the hypothesis that during major events such as the COVID-19 pandemic, people not only change their assessment of the incumbent government, but that they also learn about democracy and change their corresponding attitudes. If this prediction is accurate, we should expect negative updating on satisfaction with the head of the government to also affect attitudes towards democracy negatively. Formally, we estimate specifications of the form in Equation (4):

$$Y_i = \xi_0 + \xi_1 S_i^G + \eta_i, \tag{4}$$

where Y_i is an attitude on democracy and S_i^G (the satisfaction with the head of government) is instrumented with our sixteen treatment dummies, with the two statistics summarizing the health and economic treatments (SSH and SHE), or with the single statistic summarizing all treatments (SumStat). We consider three distinct sets of outcomes: overall satisfaction with the way democracy works in the respondent's country, internal and external efficacy, and preferences for various regime types.

Once again, the instruments are exogenous by design and, as shown in Table E.3, we have a relevant first stage: the sixteen treatment dummies, the two summary statistics SSH and SSE and the single statistic SumStat all have significant effects on satisfaction with the head of government. To address the concern of weak instruments, the last specification is our preferred one. As expected, the F-statistic associated with the first stage using only SumStat is larger (and equal to 10.3) than using the sixteen treatment dummies or SSH and SSE.

The exclusion restriction requires that our treatments did not affect respondents' attitudes on democracy through any other channel than by affecting their satisfaction with the head of government. This restriction would be violated, for instance, if the vignettes emphasizing the gravity of the crisis made respondents more negative overall and tainted their responses to all subsequent questions, including those recording their satisfaction with and support for democracy. We bring support for the assumption underlying the exclusion restriction with two pieces of evidence, shown in OA E.5 and E.6, and discussed at greater length in Section 4.5. First, we show that the impact of satisfaction with government is very similar when we control (and instrument) for other possible mediating factors in Equation (4), namely beliefs about the seriousness of the health and economic situation. Second, our effects are nearly identical when we only use the experimental variation stemming from vignettes blaming or praising the government's response to the crisis. The assumption underlying the exclusion restriction is weaker in that case. Indeed, it is hard to see how this specific source

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of variation could have affected attitudes on democracy through another channel than their satisfaction with the government.

Second stage results are displayed in Tables 6, 7, and 8.

As shown in Table 6, satisfaction with the head of the government affects respondents' satisfaction with how democracy works in their country. As we leverage variation in the former from our experiment, we can rule out that this relationship merely reflects reverse causality or unobserved confounders. In our preferred specification (column 6), a one point increase in satisfaction with the head of government increases satisfaction with democracy by 0.47 points. This effect is significant at the 5% level and of similar size across specification choices. This estimate implies a fairly large pass-through from evaluations of the incumbent government to the functioning of democracy. It confirms our hypothesis that crises of the magnitude of the COVID-19 pandemic are periods in which people in consolidated democracies may reassess their attitudes towards democracy in light of their evaluation of the government's response. That is, people do not only blame the government if they are dissatisfied with its action, they also update their beliefs about the functioning of democracy negatively.

Table 6: Impact on satisfaction with democracy - 2SLS.

	Satisfaction with democracy					
	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with the head of government	0.522***	0.536***	0.476**	0.500**	0.450**	0.468**
	(0.149)	(0.142)	(0.220)	(0.207)	(0.228)	(0.214)
Individual controls		X		X		X
Country FE		X		X		X
Observations	22,541	22,541	22,541	22,541	22,541	22,541
Outcome mean	0.500	0.500	0.500	0.500	0.500	0.500
Instruments	16 IVs	16 IVs	2 SumStats	2 SumStats	SumStat	SumStat
F-statistic	1.328	1.587	4.573	5.491	8.595	10.307

Notes: The dependent variable is the respondent's level of satisfaction with the way in which democracy works in their country, a variable ranging from 0 to 1.
Question: "How satisfied are you with the way democracy works in your country?"
Individual controls as in Table 3.
Satisfaction with the head of government is instrumented with the sixteen groups (columns 1 and 2), with the two summary statistics (columns 3 and 4), or with the single summary statistic (columns 5 and 6). *** $p < .01$, ** $p < 0.05$, * $p < .1$

Next, we turn to peoples' perceived efficacy in the political process. We estimate effects on three outcomes: whether respondents do not agree with the statement "Government does not care about how people like me think." (a measure of external efficacy) and if they do not agree with the statement "Sometimes politics and government are so complicated that a person like me can't really understand what's going on." (a measure of internal efficacy), as well as a standardized index computed by taking the average of the z-scores of the two underlying variables, which take values 1 to 5 (coded such that higher values correspond to higher efficacy). In contrast to our umbrella measure of satisfaction with democracy used above, the efficacy measures focus on particular aspects of subjective representation that are not necessarily sensitive to a country's overall comparative performance. For instance, a person may think that the government does not care about what people like him/her think but believe that the country and its political system has performed comparatively well in the crisis.

Table 7 presents the results. While the sign of the satisfaction with the head of government variable is consistently positive, suggesting that a more positive view of

the government may boost perceived efficacy, it is not statistically significant in most specifications. One possible interpretation of the results shown in Tables 6 and 7 is that perceptions of political efficacy are not the main reason why changes in the satisfaction with the government affect satisfaction with democracy.

Table 7: Impact on political efficacy - 2SLS.

	External efficacy		Internal efficacy		Standardized index	
	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with the head of government	0.471	0.148	0.110	0.585	0.990*	1.311
	(0.304)	(0.466)	(0.345)	(0.563)	(0.530)	(0.824)
Individual controls	X	X	X	X	X	X
Country FE	X	X	X	X	X	X
Observations	22,538	22,538	22,539	22,539	22,537	22,537
Outcome mean	0.312	0.312	0.588	0.588	0.000	0.000
Instruments	16 IVs	SumStat	16 IVs	SumStat	16 IVs	SumStat
F-statistic	1.584	10.314	1.568	10.145	1.567	10.139

Notes: The dependent variable in columns 1 and 2 is the dummy equal to 1 if the respondent does not agree with the statement that "The government does not care about how people like me think." and 0 otherwise. The dependent variable in columns 3 and 4 is a dummy equal to 1 if the respondent does not agree with the statement that "Sometimes, politics and government are so complicated that a person like me can't really understand what's going on." and 0 otherwise. The dependent variable in columns 5 and 6 is a standardized index computed by taking the average of the z-scores of the two underlying variables, which take values 1 to 5 (coded such that higher values correspond to higher efficacy).
Question: "How much do you agree with the following statements?" [1. Politicians do not care much about what people like me think. 2. Sometimes politics and government are so complicated that a person like me can't really understand what's going on.]
Satisfaction with the head of government is instrumented with the sixteen treatment dummies (columns 1, 3, and 5) or with the single summary statistic (columns 2, 4, and 6).
Individual controls as in Table 3. *** $p < .01$, ** $p < 0.05$, * $p < .1$

By contrast with the results found on satisfaction with the way democracy works and shown in Table 6, Table 8 shows that respondents' attitudes on different types of regimes and, in particular, their general support for democratic ideals (columns 7 and 8) is not significantly affected by their satisfaction with the head of government. Only one coefficient in the table is statistically significant, but this result is not robust to the choice of first stage variables. While the coefficients in this table are generally noisy, we do not find any systematic evidence that changes in the satisfaction with the head of

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the government induced by our treatments affect respondents' preferences over different types of regimes. Respondents do reassess the quality of their country's democratic institutions, but not the absolute desirability of having a democratic system.[13]

Table 8: Impact on support for democratic ideals - 2SLS.

	Strong leader		Experts		Army		Democracy	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Satisfaction with the head of government	-0.216	-0.107	0.031	-0.027	-0.631**	-0.691	0.120	0.076
	(0.323)	(0.482)	(0.340)	(0.511)	(0.298)	(0.467)	(0.209)	(0.311)
Individual controls	X	X	X	X	X	X	X	X
Country FE	X	X	X	X	X	X	X	X
Observations	22,535	22,535	22,537	22,537	22,536	22,536	22,537	22,537
Outcome mean	0.316	0.316	0.590	0.590	0.181	0.181	0.902	0.902
Instruments	16 IVs	SumStat	16 IVs	SumStat	16 IVs	SumStat	16 IVs	SumStat
F-statistic	1.576	10.216	1.575	10.193	1.574	10.117	1.588	10.209

Notes: The dependent variables are a binary variable equal to 1 if the respondent thinks that having a strong leader (columns 1 and 2), experts (columns 3 and 4), the army (columns 5 and 6) ruling, or a democracy (columns 7 and 8) is a good political system.
Question: "There are various types of political systems. What do you think about each as a way of governing this country? For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country?" [1. Having a strong leader who does not have to bother with parliament and elections. 2. Having experts, not government, make decisions according to what they think is best for the country. 3. Having the army rule. 4. Having a democratic political system.]
Satisfaction with the head of government is instrumented with the sixteen treatment dummies (columns 1, 3, 5, and 7) or with the single summary statistic (columns 2, 4, 6, and 8).
Individual controls as in Table 3. *** $p < .01$, ** $p < 0.05$, * $p < .1$

4.5 Additional results and discussion

Our results draw the full causal chain connecting our experimental treatments, on one end, to attitudes on democracy, on the other. We have shown that the vi-

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[13] In OA Table E.4, we show that these results are robust to using composite measures of regime support: mean support for non-democratic regimes, defined as the average of the support for having a strong leader, having the army ruling, and having experts ruling (Magalhães, 2014); rejecting non-democracy, defined as rejecting all three non-democratic regime types (army, experts, and strong leader); and favoring democracy, defined as strongly preferring democracy over the three non-democratic regime types (Norris, 2011).

gnettes successfully affected respondents' beliefs about the gravity of the crisis and their satisfaction with the health and economic measures adopted by the government in response to it; that satisfaction with the health and economic policy response, in turn, affected overall satisfaction with the head of the government; and, finally, that this latter outcome spilled over satisfaction with how democracy works, leaving support for democracy unaffected. Additional analyses reported in the OA further probe the robustness of these results and explore additional mechanisms.

First, Brazil and Poland are younger democracies than the other countries included in the sample. To make sure that our results on satisfaction and support for democracy are not driven by these two countries, we check the robustness of our results to excluding them. The corresponding results are shown in OA Tables E.5, E.6, and E.7. The results are almost identical to those obtained on the whole sample.

Second, we show that the causal impact of government evaluation on satisfaction with democracy is unlikely to be explained by accounts of blind retrospection. Rather than simply punishing democracy for bad outcomes, which may be beyond the control of policymakers (though policy shapes crisis preparation, see for instance Healy and Malhotra (2013)), we find that peoples' satisfaction with democracy primarily responds to variation in policy responses to the crisis. Specifically, we use an instrumental variable analysis following the one in Table 6, but only using the treatments praising or blaming the government for its policy response as instruments (see OA Table E.8).[14] Focusing on the variation stemming exclusively from information about the government's response to the crisis, we find that the effect of satisfaction with the head of government on satisfaction with democracy is substantively the same as in our main

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[14] This specification uses the information provided regarding the gravity of the health and economic crisis ((TH3=1 or TH4=1) and (TE3=1 or TE4=1)) as controls in both the first and second stage, so that the treatments praising or blaming the government (TH2, TH4, TE2, and TE4 only) used as instruments only capture the information provided on the policy response itself.

analysis.

Third, to what extent are changes in democratic satisfaction driven by evaluations of the chief executive versus other executive actors? While fully unbundling the role of different actors is beyond the scope of this paper, we can say that both appear to be at play. Results shown in Table 6 already demonstrate the existence of a link between evaluations of the chief executive and satisfaction with democracy. This link is robust if we introduce other channels in the equation estimated in that table. Specifically, OA Table E.11 estimates an augmented version of Equation (4), which includes people's beliefs about the seriousness of the health and economic situation, respectively, which may attributed to a larger set of political leaders, as additional predictors of satisfaction with democracy. We are able to incorporate these additional variables into the instrumental variable analysis thanks to our large number of instruments. The point estimates on satisfaction with the head of government are only slightly smaller as in Table 6 and the effects of the perceived seriousness of the health and economic situation are negative, consistent with intuition, but small and not significant.

We also find that our treatments concerning the health situation shape people's evaluation of their regional government. While this variable is not part of our pre-registered analysis (as it is placed after all the outcome variables), it illustrates the relevance of subnational executive actors in the crisis (OA Table E.14). Moreover, an instrumental variable analysis shows that evaluations of the regional governments also shape satisfaction with democracy, though this effect becomes insignificant once we account for the chief executive (OA Table E.15).

5   Conclusion

This paper provides evidence about the effects of the COVID-19 pandemic on people's attitudes with respect to democracy in 12 countries. The health and economic

crises resulting from the pandemic and the policy measures adopted in response to it have affected these countries' entire population. This makes evaluating effects on political attitudes both important and challenging. Our analysis leverages variation generated through a survey experiment. A total of 22,500 respondents received randomly selected vignettes about the gravity of the crisis and assessments of the government's response. Prior to the experiment, our respondents had been exposed to abundant, and often contradictory information about the crisis: few events have dominated media coverage and the public debate as much as the COVID-19 pandemic. In this context, rather than providing new factual information, our strategy was to put the crisis in historical perspective by comparing it to randomly varying benchmarks, and to make some facets of the crisis and of its management salient in the mind of respondents.

We find, first, that the treatments successfully changed respondents' perceptions of the seriousness of the crisis and their level of satisfaction with governments' measures. Second, throughout the crisis, governments and pundits often debated how to balance health and economic objectives when designing policies. Our experiment sheds light on this question by revealing that respondents put equal weight on their satisfaction with respect to health and economic dimensions when providing an overall assessment of the head of government's action. Third, and most importantly, we instrument satisfaction with the government with our experimental treatments and find that changes in this outcome spill over changes in people's satisfaction with how democracy works. This result suggests that crises of the magnitude of the COVID-19 pandemic have the potential to change deep-seated attitudes towards democracy. Reassuringly, respondents disappointed with the government do not go all the way to decrease their support for democracy as a regime type.

An optimistic prediction is that the COVID-19 pandemic might turn citizens who were dissatisfied with the way in which their country addressed the crisis but still support democracy into "critical democrats" (Norris, 2011) engaging with politics to

address the flaws in the functioning of democracy which were uncovered by the crisis. However, we do not find evidence that these respondents' sense of internal and external efficacy increases. If anything, the opposite happens. Therefore, a more pessimistic prediction is that the effects we measure are the first step of a process that might eventually lead people who suffered from the crisis the most or were the most disappointed in governments' response to question their support for democracy and consider alternative regime types more favorably. Because the pandemic is still unfolding and some of these effects may take time to materialize, future work will be needed to learn which of these two predictions will materialize.

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Online Appendix

November 22, 2021

Contents

A Theory

A stylized selection model of democratic politics formally illustrates the intuition beyond two of the learning channels discussed in Section 2 of the paper. The focus is on the less obvious case where learning occurs not simply because people get more of the same type of information. Here, a key mechanism is that in the pandemic there is a second salient policy dimension that increases information about the quality of democracy.

Formally, consider a representative citizen that observes government performance in period $t = 1$ and thereby has an opportunity to learn about the functioning of democracy. After updating her beliefs, in period $t = 2$ the citizen may take a political action, such as voicing support for democracy, voting, protesting, etc., which may in turn affect the selection of the new government and the rules of the game. More specifically, the observed performance of the government in period t is denoted by g_t, which can take any value between 0 and 1, with higher values representing better performance or well-being for the citizen. The set of political leaders that shape overall performance g_t varies with the state of the world, which is indicated by the indicator function $\mathbb{1}$. In normal times ($\mathbb{1} = 1$), performance is by and large attributed to the competence of one set of leaders denoted by A. Following the large literature on accountability and economic voting, one may think of the economy as the dominant issue and the chief executive (i.e., prime minister or president) as the chief focus on public attention. In pandemic times ($\mathbb{1} = 0$), public health becomes a salient issue and so overall performance is a result of a larger set of leaders: all actors in set A as well as an additional set of actors, B. For instance, in a parliamentary government, the health minister now will also be important. Looking beyond the cabinet, an effective pandemic response requires efforts across different levels of government, and in particular state executives (i.e., premiers or governors) become salient. Hence, in this situation the policy outcome can be construed as the weighted sum of policymakers' competence, with weight α for policymakers A and weight $1 - \alpha$ for policymakers B. To summarize, first-period performance is:

$$g_1 = \mathbb{1}g_1^A + (1 - \mathbb{1})(\alpha g_1^A + (1 - \alpha)g_1^B) \tag{A.1}$$

Following pure adverse selection models, assume that good policymakers tend to generate good outcomes and bad policymakers bad outcomes (Duch and Stevenson, 2008). Moreover, the competence of policymakers is persistent. The probability that a new policymaker $j \in \{A, B\}$ is a competent type is $Pr(g^j = 1) = \pi$. Here, the parameter π captures the ability of existing democratic institutions to select or foster good politicians. The opportunity to learn about democracy arises because citizens are not certain about π.[1] The citizen has a prior belief that democracy works, captured by $\pi \in \{l, h\}$ with $0 < l < h < 1$. The prior probability that democracy is good at producing capable, public spirited leaders is $Pr(\pi = h) = q$, and the prior probability that democracy does not work so well in this sense is $Pr(\pi = l) = 1 - q$. The parameters l, h, q have been shaped by history and culture.

What can a rational citizen infer about the quality of democracy π after observing first-period performance? The answer depends on whether there is a pandemic or not. Suppose that times are normal ($\mathbb{1} = 1$) and observed first-period performance is bad ($g_1 = 0$). Bayes' rule gives the citizen's updated probability that democracy works well:

$$Pr(\pi = h | g_1 = 0, \mathbb{1} = 1) = \frac{q(1 - h)}{q(1 - h) + (1 - q)(1 - l)} \tag{A.2}$$

Suppose there is a pandemic ($\mathbb{1} = 0$) and observed first-period performance is bad ($g_1 = 0$). Now the citizen's updated probability that democracy works well is

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[1]Here, we build on Meirowitz and Tucker (2013). While their model emphasizes the difference between old and new democracies and suggests that in old democracies people's beliefs are quite stable, we adapted their framework to analyze learning in normal vs. pandemic times.

$$Pr(\pi = h | g_1 = 0, \mathbb{1} = 0) = \frac{q(1-h)^2}{q(1-h)^2 + (1-q)(1-l)^2} \tag{A.3}$$

It is apparent that the citizen's posterior belief that democracy works well is lower in the pandemic than in normal times: $Pr(\pi = h | g_1 = 0, \mathbb{1} = 1) > Pr(\pi = h | g_1 = 0, \mathbb{1} = 0)$. The reason is that bad performance is more informative about democracy in the pandemic because it involves a larger set of salient policy leaders. By the same logic, after observing good performance updating is more positive in the pandemic than in normal times. $Pr(\pi = h | g_1 = 1, \mathbb{1} = 0) > Pr(\pi = h | g_1 = 1, \mathbb{1} = 1)$.

The analysis can be generalized by considering $K \geq 2$ possible sets of policymakers that are involved in making salient decisions in times of crisis. After observing bad performance in a pandemic, the posterior belief that democracy is good is

$$Pr(\pi = h | g_1 = 0, \mathbb{1} = 0) = \frac{q(1-h)^K}{q(1-h)^K + (1-q)(1-l)^K} \tag{A.4}$$

Taken together, this model illustrates that in a pandemic people's views about democracy are more responsive to information than in normal times. It highlights that even in old, consolidated democracies, a pandemic can be a good time for people to learn how well democracy works. From an informational perspective, a large-scale crisis is worth more than a few normal years of democratic politics. Notably, this mechanism is not based on people blindly punishing democracy for bad performance. Rather, the mechanism is the flip side of accountability models such as Duch and Stevenson (2008). Accountability models correctly highlight that having a larger number of policymakers makes it more difficult for citizens to learn from overall performance about the competence of any particular incumbent. However, our analysis shows that having a larger set of policymakers also provides a more informative signal about the effectiveness of the democratic political system as a whole.

Note that the model can also be interpreted in terms of learning more about the chief executive. Assume for the sake of clarity that the chief executive is the only publicly salient policymaker. If the competence of managing the economy in normal times is not perfectly correlated with managing a crisis, then the pandemic also enhances learning about democracy through this complementary channel. Assuming that the leader's competence on both dimensions are i.i.d draws, the formal model leads to the same Bayesian updating as above (A.2-A.3).

B Survey and text of the vignettes

B.1 Survey ethics

This study adheres to the APSA Principles and Guidance for Human Subjects Research. The data collection is based on an online opt-in survey in 12 countries of adults that give informed consent to participate in the survey. The study does not include vulnerable groups or entail any physical or otherwise harmful interventions. No deception is used.

The online, opt-in surveys on the adult population are conducted by commercial companies. Respondents are adults who have given their prior consent to be contacted to participate in a survey. Invitations to participate in our survey are emailed to the company's pool of respondents so that that share of respondents matches relevant quotas on the population margins with respect to variables like age, occupation and region of residence (quota sampling). People that choose to opt-in to participate to the survey (on their computer or mobile phone) then have to give their explicit consent. First, at the beginning of the survey, respondents must agree by reading the documents regarding to data confidentiality and privacy policy and take an active action to give the consent (tick a special box stating "Yes, I agree"). Second, the survey informs them about the type of questions they will encounter in the survey and asks them for their informed consent.

The survey covers questions about politics and political preferences, which may be seen as sensitive. Though the risk here is minimal as all countries are established democracies and places where opt-in survey

of this nature are low risk and standard. For instance, this survey is of the same nature as national elections surveys (e.g., American National Election Study) or comparative survey projects like the International Social Survey Program (ISSP), the European Social Survey (ESS) or the Latinobarómetro. The research does not involve vulnerable groups. It only includes participants that can give informed consent. It does not involve physical interventions on the participants and does not entail risk of harm. No drugs, placebos or other substances are administered. No invasive, intrusive or potentially harmful procedures of any kind are involved. The research does not involve administrative or secure data that requires permission from the appropriate authorities before use. As is discussed in the main text, the survey does not use deception. The survey experimental treatments consist in the exact randomization of survey questions without regard to subjects' characteristics. The analysis dataset does not contain the name, contact, or geo-location of participants.

Respondents received no direct pay for their participation, as the survey is relatively short (about 15 minutes). Moreover, compensation may induce researcher demand effects.

B.2 Vignettes

Australia

- Health treatments:

    - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per hundred thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed one hundred times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

    - **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per hundred thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed one hundred times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more forceful than in other countries in the region.

    - **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 100. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people.

    - **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 100. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people. Many observers blamed the government for failing to prepare adequately for this risk and for taking too long to provide enough tests, masks and other health supplies for the population.

- Economic treatments:

    - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Australia, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

    - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number

of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Australia, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

– **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

– **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Prime Minister himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

Austria

- Health treatments:

  – **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per ten thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed thirty times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  – **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per ten thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed thirty times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more forceful than in other countries in the region.

  – **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 700. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people.

  – **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 700. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people. Many observers blamed the government for failing to prepare adequately for this risk and for taking too long to provide enough tests, masks and other health supplies for the population.

- Economic treatments:

  – **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Austria, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

- **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Austria, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

- **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

- **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Chancellor himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

Brazil

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per three thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed three times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  - **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per three thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed three times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more forceful than in other countries in the region.

  - **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 58,000 which is fifty thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks.

  - **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 58,000 which is fifty thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. Many observers blamed the federal government for taking too long to provide enough tests, masks and other health supplies for the population. They also pointed out that the government's response to the health crisis had been slower and less successful than in other countries in the region.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of

jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Brazil, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

– **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Brazil, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

– **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 6% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

– **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 6% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the President himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

France

- Health treatments:

  – **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed six times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  – **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed six times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more forceful than in other countries in the region.

  – **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 29,000 which is twenty thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks.

  – **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 29,000 which is twenty thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. Many observers blamed the government for taking too long to provide enough tests, masks and other health supplies for the population. They also pointed out that the government's response to the health crisis had been slower and less successful than in other countries in the region.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than France, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than France, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

  - **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 8% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 8% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the President himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

Germany

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was about one per ten thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed 40 times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  - **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was about one per ten thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed 40 times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more measured than in other countries in the region.

  - **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 8,500, which is several thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks.

  - **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 8,500, which is several thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. Many

observers blamed the government for taking too long to provide enough masks and other health supplies for the population. They also pointed out that the government's response to the health crisis had been slower and less successful than in other countries in the region.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Germany, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Germany, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

  - **TE3:**In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Chancellor herself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

Italy

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed ten times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  - **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed ten times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more forceful than in other countries in the region.

  - **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 33,000 which is twenty-five thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks.

- **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 33,000 which is twenty-five thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. Many observers blamed the government for taking too long to provide enough masks and other health supplies for the population. They also pointed out that the government's response to the health crisis had been slower and less successful than in other countries in the region.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Italy, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Italy, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

  - **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 10% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 10% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Prime Minister himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

New Zealand

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per hundred thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed two hundred times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  - **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per hundred thousand. Some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed two hundred times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's

response to the current health crisis had been swifter and more forceful than in other countries in the region.

- **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 20. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people.

- **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 20. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people. Many observers blamed the government for failing to prepare adequately for this risk and for taking too long to provide enough tests, masks and other health supplies for the population.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than New Zealand, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than New Zealand, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

  - **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 8% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 8% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Prime Minister herself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

United Kingdom

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed four times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  - **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed

four times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more measured than in other countries in the region.

- **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 40,000, which is twenty thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks.

- **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 40,000, which is twenty thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. Many observers blamed the government for taking too long to provide enough tests, masks and other health supplies for the population. They also pointed out that the government's response to the health crisis had been slower and less successful than in other countries in the region.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Britain, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Britain, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

  - **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Prime Minister himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

Sweden

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed eight times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

- **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed eight times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more measured than in other countries in the region.
- **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 5,000 which is three thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks.
- **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 5,000 which is three thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. Many observers blamed the government for taking too long to provide enough tests, masks and other health supplies for the population. They also pointed out that the government's response to the health crisis had been less forceful than in other countries in the region.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Sweden, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.
  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Sweden, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.
  - **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.
  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 7% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Prime Minister himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

Poland

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per ten thousand. While of course dramatic, some historians put these numbers

in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed two hundred times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

- **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per ten thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed two hundred times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more forceful than in other countries in the region.

- **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 1,000 which is nine hundred more than the number of deaths from the flu in a normal year. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people.

- **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 1,000 which is nine hundred more than the number of deaths from the flu in a normal year. Many more people were infected and had to be hospitalized for days or weeks. In addition, some experts fear that a second wave of the pandemic may kill many more people. Many observers blamed the government for failing to prepare adequately for this risk and for taking too long to provide enough tests, masks and other health supplies for the population.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Poland, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than Poland, imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the Polish government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

  - **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 5% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 5% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the Prime Minister (Premier) himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

United States

- Health treatments:

  - **TH1:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per two thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed five times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten.

  - **TH2:** By the end of June, the total number of deaths due to COVID-19 in the country was less than one per two thousand. While of course dramatic, some historians put these numbers in perspective and pointed out that they were much lower than for the 1918 Spanish flu, which killed five times as many people in the country. More recently, the 1968 flu also had a higher mortality rate than COVID-19 worldwide, but it had been largely forgotten. Prominent commentators praised the government for addressing COVID-19 more effectively than these previous pandemics had been managed. They also pointed out that the government's response to the current health crisis had been swifter and more forceful than in other countries in the region.

  - **TH3:** By the end of June, the number of deaths due to COVID-19 in the country was more than 120,000 which is seventy thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks.

  - **TH4:** By the end of June, the number of deaths due to COVID-19 in the country was more than 120,000 which is seventy thousand more than the number of deaths from the flu in a normal year. In addition, many more people were infected and had to be hospitalized for days or weeks. In addition, many more people were infected and had to be hospitalized for days or weeks. Many observers blamed the government for taking too long to provide enough tests, masks and other health supplies for the population. They also pointed out that the government's response to the health crisis had been slower and less successful than in other countries in the region.

- Economic treatments:

  - **TE1:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than U.S., imposed a general lockdown, and have experienced steep growth since the lockdown was lifted.

  - **TE2:** In addition to its health consequences, the pandemic has also affected the economy in the short run. However, many economists expect economic activity, consumption, and the number of jobs to rapidly go back to their levels before COVID-19. They point to the example offered by Vietnam and other Asian countries which were hit by the pandemic earlier than U.S., imposed a general lockdown, and have experienced steep growth since the lockdown was lifted. Voices across the political aisle praised the government for its response to the economic crisis, including the stimulus package it adopted to support households and companies across the country.

  - **TE3:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 6% in 2020, and that unemployment would rise for several months. They expected the economic crisis to continue through 2021, if not longer.

  - **TE4:** In addition to its health consequences, the pandemic has also had dramatic effects for the economy. Many economists warned that the consequences may be more severe than the 2008 financial crisis, and even comparable to the Great Depression of the 1930s, predicting that GDP could decline by as much as 6% in 2020, and that unemployment would rise for several months.

They expected the economic crisis to continue through 2021, if not longer. Many voices, including within the party of the President himself, deemed the response of the government to the economic crisis insufficient and targeted to firms and individuals that needed it the least.

C   Question wording for outcome variables

Perceived seriousness of the crisis		Very serious	Quite serious	Somewhat serious	Not serious	Not at all serious
CSQSANT	Would you say that the consequences of the coronavirus epidemic for health in [country] are today...?	1	2	3	4	5
CSQECO	Would you say that the consequences of the coronavirus epidemic for [country]'s economy are today...?	1	2	3	4	5

		Completely dissatisfied					Neither satisfied nor dissatisfied					Completely satisfied
Satisfaction with Government Policy												
EVALSANTB	Are you satisfied with the health measures taken by the government to mitigate the COVID-19 pandemic?	0	1	2	3	4	5	6	7	8	9	10
EVALECOB	Are you satisfied with the economic measures taken by the government to cope with the COVID-19 pandemic?	0	1	2	3	4	5	6	7	8	9	10
Satisfaction with the head of Government												
Q3	Generally speaking, are you satisfied or dissatisfied with the action of President/Prime Minister/Chancellor [name]?	0	1	2	3	4	5	6	7	8	9	10
Satisfaction with Democracy												
SWT	How satisfied are you with the way democracy works in your country?											

Preferences for regime types		Very good way	Fairly good way	Fairly bad way	Very bad way
POSYS	There are various types of political systems. What do you think about each as a way of governing this country? For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country?				
1.Having a strong leader who does not have to bother with parliament and elections.		1	2	3	4
2.Having experts, not government, make decisions according to what they think is best for the country		1	2	3	4
3.Having the army rule.		1	2	3	4
4.Having a democratic political system.		1	2	3	4

Satisfaction with regional government		Completely satisfied	Quite satisfied	Not very satisfied	Not at all satisfied
SATCORREG	Generally speaking, are you satisfied with the way that your regional government is handling coronavirus?	1	2	3	4

D Values of the summary statistics

	TH2	TH1	TH3	TH4
SSH	1	0.75	0.25	0

	TE2	TE1	TE3	TE4
SSE	1	0.75	0.25	0

Table D.1: Values of the summary statistics SSH and SSE.

	TH2	TH1	TH3	TH4
TE2	1	0.75	0.25	0
TE1	0.75	0.5	0	-0.25
TE3	0.25	0	-0.5	-0.75
TE4	0	-0.25	-0.75	-1

Table D.2: Values of the single summary statistic SumStat.

E Additional figures and tables

E.1 Balance tests

Table E.1 presents the distribution of the covariates used in the paper. We show the mean and the standard deviation of each variable as well as the F-statistic from a regression of the variable on all sixteen treatment dummies, and its associated p-value. Overall, respondents in the different treatment groups are very similar. The F-statistic of one out of 28 variables is significant at the 10% level, and none is significant at the 5% level, as would be expected.

	Mean	sd	F-stat	p-value
Thirties	0.179	0.383	0.711	0.776
Fourties	0.198	0.399	1.185	0.274
Fifties	0.174	0.379	0.386	0.983
Sixties	0.195	0.396	0.828	0.646
Seventies	0.108	0.310	0.917	0.544
Income, 2nd quartile	0.241	0.428	1.482	0.102
Income, 3rd quartile	0.229	0.420	0.761	0.722
Income, 4th quartile	0.235	0.424	0.733	0.752
Income, no answer	0.063	0.242	1.106	0.344
Female	0.534	0.499	1.489	0.099
High school degree	0.229	0.420	0.679	0.808
College degree	0.278	0.448	0.686	0.802
No religion	0.368	0.482	1.324	0.178
Christian, not catholic	0.142	0.349	0.961	0.494
Catholic	0.373	0.484	1.252	0.224
Full-time worker	0.267	0.442	0.469	0.957
Part-time worker	0.009	0.095	0.685	0.802
Unemployed	0.026	0.159	0.685	0.802
Self-employed	0.003	0.059	0.701	0.786
Out of labor force	0.180	0.385	0.747	0.738
Good health situation	0.646	0.478	0.945	0.513
White	0.067	0.249	0.394	0.981
Black	0.010	0.098	0.943	0.514
Latinx	0.005	0.071	0.629	0.854
Asian origin	0.005	0.071	1.245	0.229
White-collar	0.057	0.231	1.170	0.287
Blue-collar	0.050	0.218	0.624	0.858
Service worker	0.095	0.294	0.716	0.771

Table E.1: Balance tests.

E.2   First stage tables

Tables E.2 and E.3 present the results of the first stage, regressing the endogenous variables on the treatment dummies or on the summary statistics described in Tables D.1 and D.2.

	Health satisfaction				Economic satisfaction			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SSH			0.030***	0.031***			0.007	0.008*
			(0.005)	(0.004)			(0.004)	(0.004)
SSE			0.005	0.005			0.021***	0.021***
			(0.005)	(0.004)			(0.004)	(0.004)
TH1_TE1	0.026**	0.027***			0.017*	0.018*		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH1_TE2	0.025**	0.026***			0.025**	0.025***		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH1_TE3	0.036***	0.036***			0.017*	0.017*		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH1_TE4	0.038***	0.038***			0.015	0.015		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH2_TE1	0.037***	0.038***			0.032***	0.033***		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH2_TE2	0.062***	0.063***			0.044***	0.045***		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH2_TE3	0.034***	0.036***			0.015	0.017*		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH2_TE4	0.038***	0.041***			0.007	0.009		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH3_TE1	0.026**	0.027***			0.029***	0.031***		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH3_TE2	0.029***	0.032***			0.031***	0.033***		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH3_TE3	0.021**	0.020**			0.018*	0.017*		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH3_TE4	0.024**	0.026***			0.007	0.008		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH4_TE1	0.018*	0.017*			0.022**	0.021**		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH4_TE2	0.006	0.006			0.017*	0.018*		
	(0.010)	(0.010)			(0.010)	(0.009)		
TH4_TE3	0.011	0.012			0.019**	0.021**		
	(0.010)	(0.010)			(0.010)	(0.009)		
Controls		X		X		X		X
Country FE		X		X		X		X
Observations	22,541	22,541	22,541	22,541	22,541	22,541	22,541	22,541
F-statistic	4.329	5.063	22.242	26.413	2.558	2.898	12.555	14.324

Table E.2: Satisfaction with the health and economic measures, first stage.

Notes: The dependent variable for columns 1 and 2 (resp. 3 and 4) is a variable ranging from 0 to 1 (with possible values 0, 0.1, 0.2, etc.), measuring respondents' level of satisfaction with the health (resp. economic) measures taken by the government to mitigate the COVID-19 pandemic.

Question: "Are you satisfied with the health (resp. economic) measures taken by the government to mitigate the COVID-19 pandemic?"

The F-statistic is computed on the excluded instruments only.

$TH4\_TE4$ is omitted.*** $p < .01$, ** $p < 0.05$, * $p < .1$

	(1)	(2)	(3)	(4)	(5)	(6)
			Satisfaction with the head of government			
SSH			0.014***	0.014***		
			(0.005)	(0.005)		
SSE			0.008	0.008*		
			(0.005)	(0.005)		
SumStat					0.011***	0.011***
					(0.004)	(0.004)
TH1_TE1	0.011	0.013				
	(0.012)	(0.011)				
TH1_TE2	0.017	0.018				
	(0.012)	(0.011)				
TH1_TE3	0.008	0.008				
	(0.012)	(0.011)				
TH1_TE4	0.022*	0.022**				
	(0.012)	(0.011)				
TH2_TE1	0.029**	0.030***				
	(0.012)	(0.011)				
TH2_TE2	0.041***	0.042***				
	(0.012)	(0.011)				
TH2_TE3	0.018	0.020*				
	(0.012)	(0.011)				
TH2_TE4	0.017	0.018				
	(0.012)	(0.011)				
TH3_TE1	0.014	0.016				
	(0.012)	(0.011)				
TH3_TE2	0.020*	0.023**				
	(0.012)	(0.011)				
TH3_TE3	0.010	0.010				
	(0.012)	(0.011)				
TH3_TE4	0.013	0.015				
	(0.012)	(0.011)				
TH4_TE1	0.016	0.016				
	(0.012)	(0.011)				
TH4_TE2	0.005	0.005				
	(0.012)	(0.011)				
TH4_TE3	0.015	0.016				
	(0.012)	(0.011)				
Controls		X		X		X
Country FE		X		X		X
Observations	22,541	22,541	22,541	22,541	22,541	22,541
F-statistic	1.328	1.587	4.573	5.491	8.595	10.307

Table E.3: Satisfaction with the head of government, first stage.

Notes: The dependent variable is a variable ranging from 0 to 1, measuring the level of satisfaction with the head of government (President / Prime minister / Chancellor).

Question: "Generally speaking, are you satisfied or dissatisfied with the action of Prime Minister/Chancellor/President [name]?"
The F-statistic is computed on the excluded instruments only.
$TH4\_TE4$ is omitted. *** $p < .01$, ** $p < 0.05$, * $p < .1$

E.3 Additional results on regime types

Table E.4 presents additional results on regime preferences. We measure effects of satisfaction with the head of government, instrumented by our treatments, on mean support for non-democratic regimes, defined as the average of the support for having a strong leader, having the army ruling, and having experts ruling (Magalhães, 2014); rejecting non-democracy, defined as rejecting all three non-democratic regime types (ruling by the army, experts, and a strong leader); and favoring democracy, defined as strongly preferring democracy over the three non-democratic regime types (Norris, 2011). We do not find any significant effect on any of these variables.

	Mean non-democratic		Rejects non-democratic		Democracy > non-democracy	
	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with the						
head of government	-0.093	-0.575	0.108	0.251	0.041	0.484
	(0.455)	(0.720)	(0.320)	(0.483)	(0.338)	(0.528)
Individual controls	X	X	X	X	X	X
Country FE	X	X	X	X	X	X
Observations	22,532	22,532	22,532	22,532	22,529	22,529
Outcome mean	2.084	2.084	0.309	0.309	0.470	0.470
Instruments	16 IVs	SumStat	16 IVs	SumStat	16 IVs	SumStat
F-statistic	1.574	10.214	1.574	10.214	1.576	10.193

Table E.4: Effects on regime types, additional results - 2SLS.

Notes: The dependent variable is the average score given to non-democratic alternatives (Magalhães, 2014), in columns 1 and 2, a dummy equal to one if the respondent rejects all non-democratic alternatives (Norris, 2011), in columns 3 and 4, and a dummy equal to one if the respondent gives a higher score to democracy than to all non-democratic alternatives, in columns 5 and 6. Question: "Generally speaking, are you satisfied or dissatisfied with the action of Prime Minister/Chancellor/President [name]?"
Individual controls as in Table 3. *** $p < .01$, ** $p < 0.05$, * $p < .1$

E.4 Robustness to excluding young democracies

Tables E.5, E.6, and E.7 show the robustness of Tables 6, 8 and E.4 to the exclusion of younger democracies (Brazil and Poland).

	Satisfaction with democracy					
	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with the head of government	0.445***	0.452***	0.439**	0.462**	0.394*	0.415**
	(0.136)	(0.130)	(0.192)	(0.183)	(0.214)	(0.201)
Individual controls		X		X		X
Country FE		X		X		X
Observations	20,539	20,539	20,539	20,539	20,539	20,539
Outcome mean	0.507	0.507	0.507	0.507	0.507	0.507
Instruments	16 IVs	16 IVs	2 SumStats	2 SumStats	SumStat	SumStat
F-statistic	1.631	1.934	6.091	7.130	10.045	12.060

Table E.5: Impact on satisfaction with democracy, excluding Brazil and Poland - 2SLS.
Notes: We exclude Brazil and Poland from the sample. Other notes as in Table 6. *** $p < .01$, ** $p < 0.05$, * $p < .1$

	Strong leader		Experts		Army		Democracy	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Satisfaction with the head of government	-0.064	0.109	0.117	0.040	-0.422*	-0.435	0.059	0.118
	(0.291)	(0.448)	(0.316)	(0.483)	(0.248)	(0.389)	(0.189)	(0.288)
Individual controls	X	X	X	X	X	X	X	X
Country FE	X	X	X	X	X	X	X	X
Observations	20,534	20,534	20,535	20,535	20,534	20,534	20,536	20,536
Outcome mean	0.305	0.305	0.584	0.584	0.169	0.169	0.907	0.907
Instruments	16 IVs	SumStat	16 IVs	SumStat	16 IVs	SumStat	16 IVs	SumStat
F-statistic	1.910	11.849	1.918	11.930	1.915	11.843	1.931	11.888

Table E.6: Impact on support for democratic ideals, excluding Brazil and Poland - 2SLS.
Notes: We exclude Brazil and Poland from the sample. Other notes as in Table 8. *** $p < .01$, ** $p < 0.05$, * $p < .1$

	Mean non-democratic		Rejects non-democratic		Democracy > non-democracy	
	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with the head of government	-0.039	-0.303	0.104	0.223	0.104	0.439
	(0.417)	(0.653)	(0.299)	(0.460)	(0.313)	(0.496)
Individual controls	X	X	X	X	X	X
Country FE	X	X	X	X	X	X
Observations	20,531	20,531	20,531	20,531	20,529	20,529
Outcome mean	2.061	2.061	0.320	0.320	0.485	0.485
Instruments	16 IVs	SumStat	16 IVs	SumStat	16 IVs	SumStat
F-statistic	1.907	11.847	1.907	11.847	1.906	11.764

Table E.7: Effects on regime types, additional results, excluding Brazil and Poland - 2SLS.
Notes: We exclude Brazil and Poland from the sample. Other notes as in Table E.4. *** $p < .01$, ** $p < 0.05$, * $p < .1$

E.5 Robustness to using only blaming and praising the government as instruments

To address concerns about a possible violation of the exclusion restriction, a first test of the robustness of our results uses only the mentions of the government in the treatment (blaming or praising) as instruments for the endogenous variables. This specification also includes as control variables the dummy variables for the gravity of the health and economic crisis so that the treatments praising or blaming the government (TH2, TH4, TE2 and TE4 only) used as instruments only capture the information provided on the policy response itself. Equation (E.1) displays the first stage where the endogenous variable (satisfaction for the head of the government) is regressed on the dummies corresponding to the four treatment groups mentioning the government. Equation (E.2) adds interactions between these treatment dummies.

The treatment dummies are the only excluded instruments since both the Gravity dummies are included in the second stage as well (Equation (E.2)).

First stage 4 IVs:

$$SatisHead_i = \beta_0 + \beta_1 TH2_i + \beta_2 TH4_i + \beta_3 TE2_i + \beta_4 TE4_i + GravityHealth_i + GravityEconomy_i + \gamma X_i + u_i \tag{E.1}$$

First stage 8 IVs:

$$SatisHead_i = \beta_0 + \beta_1 TH2_i + \beta_2 TH4_i + \beta_3 TE2_i + \beta_4 TH4_i + \beta_5 TH2_i TE2_i + \beta_6 TH2_i TE4_i$$
$$+ \beta_7 TH4_i TE2_i + \beta_8 TH4_i TE4_i + GravityHealth_i + GravityEconomy_i + \gamma X_i + u_i$$

Second stage:

$$Y_i = \alpha_0 + \alpha_1 \widehat{SatisHead_i} + GravityHealth_i + GravityEconomy_i + \gamma X_i + v_i \tag{E.2}$$

with $GravityHealth_i = \mathbf{1}(TH3_i = 1 \text{ or } TH4_i = 1)$, and $GravityEconomy_i = \mathbf{1}(TE3_i = 1 \text{ or } TE4_i = 1)$

Tables E.8, E.9, and E.10 present the results corresponding to these specifications for the three following outcomes: satisfaction with democracy, support for democracy as a regime type, and the standardized efficacy index. We conduct a Hausman test of equality of the models, comparing to the specifications in the main paper, as well as a Z-test of equality of coefficients across the two models. In Table E.8, the point estimate on satisfaction with the head of government are relatively similar whether we use all treatment dummies (columns 1 and 2) or only the dummies mentioning the government (columns 3 and 4). Neither the Hausman nor the Z-test conclude to a rejection of the null hypothesis that coefficients are identical.

	Satisfaction with democracy			
	(1)	(2)	(3)	(4)
Satisfaction with the head of government	0.522***	0.536***	0.520***	0.544***
	(0.149)	(0.142)	(0.191)	(0.180)
Gravity economy			0.000	0.001
			(0.003)	(0.003)
Gravity health			-0.001	-0.001
			(0.003)	(0.003)
Individual controls		X		X
Country FE		X		X
Observations	22,541	22,541	22,541	22,541
Outcome mean	0.500	0.500	0.500	0.500
Instruments	16 IVs	16 IVs	8 IVs	8 IVs
F-statistic	1.328	1.587	1.519	1.864
Hausman test p-value			0.990	1.000
Z-test p-value			0.995	0.971

Table E.8: Impact on satisfaction with democracy, treatments mentioning government - 2SLS.
Notes: We only use government blaming and praising as instruments. Individual controls as defined in Table 3. Columns 1 and 2 are identical to columns 1 and 2 of Table 6 in the main paper. *** $p < .01$, ** $p < 0.05$, * $p < .1$

In Table E.9, the point estimate on satisfaction with the head of government, which was very close to zero in the baseline specification (columns 1 and 2) remains very small and non statistically significant. Both tests cannot be rejected.

	Democracy			
	(1)	(2)	(3)	(4)
Satisfaction with the head of government	0.034	0.120	0.054	0.121
	(0.217)	(0.209)	(0.274)	(0.261)
Gravity economy			-0.001	-0.001
			(0.004)	(0.004)
Gravity health			-0.000	-0.000
			(0.005)	(0.004)
Individual controls		X		X
Country FE		X		X
Observations	22,537	22,537	22,537	22,537
Outcome mean	0.902	0.902	0.902	0.902
Instruments	16 IVs	16 IVs	8 IVs	8 IVs
F-statistic	1.330	1.588	1.527	1.869
Hausman test p-value			0.905	1.000
Z-test p-value			0.954	0.999

Table E.9: Impact on support for democracy, treatments mentioning government - 2SLS.
Notes: We only use only government blaming and praising as instruments. Individual controls as defined in Table 3. Column 2 is identical to column 7 of Table 8 in the main paper. *** $p < .01$, ** $p < 0.05$, * $p < .1$

In Table E.10, the point estimate on satisfaction with the head of government is slightly reduced in columns 3 and 4 compared to columns 1 and 2 and loses statistical significance. We are, however, still far from rejected the null hypothesis of the difference tests.

	Efficacy standardized index			
	(1)	(2)	(3)	(4)
Satisfaction with the head of government	1.002*	0.990*	0.849	0.932
	(0.550)	(0.530)	(0.691)	(0.661)
Gravity economy			-0.022**	-0.021**
			(0.011)	(0.011)
Gravity health			0.008	0.010
			(0.012)	(0.011)
Individual controls		X		X
Country FE		X		X
Observations	22,537	22,537	22,537	22,537
Outcome mean	0.000	0.000	0.000	0.000
Instruments	16 IVs	16 IVs	8 IVs	8 IVs
F-statistic	1.317	1.567	1.509	1.845
Hausman test p-value			0.717	1.000
Z-test p-value			0.862	0.945

Table E.10: Impact on efficacy standardized index, treatments mentioning government - 2SLS.
Notes: We only use only government blaming and praising as instruments. Individual controls as defined in Table 3. Column 2 is identical to column 5 of Table 7 in the main paper. *** $p < .01$, ** $p < 0.05$, * $p < .1$

E.6   Robustness to the addition of intermediary endogenous variables

Another test of the robustness of our results against a possible violation of the exclusion restriction is to include other intermediary endogenous variables as regressors. In particular, we include our measures of the

seriousness of the crisis as additional endogenous variables in the model, which served as dependent variables in the first part of our analysis. We are able to incorporate these additional variables into the instrumental variable analysis thanks to our large number of instruments generated through the experiment. Equations (E.3) and (E.4) show the first and second stages.

First stage 16 IVs (15 since one is excluded):

$$SatisHead_i = \beta_0 + \beta_1 TH_1 TE1 + \beta_2 TH1_i TE2_i + \beta_3 TH1_i TE3_i + \beta_4 TH1_i TE4_i + ... + \beta_5 TH4_i TE3_i + \gamma X_i + u_i$$
$$VerySeriousHealthCsqc_i = \omega_0 + \omega_1 TH1_i TE1_i + \omega_2 TH1_i TE2_i + \omega_3 TH1_i TE3_i + \omega_4 TH1_i TE4_i + ... + \omega_5 TH4_i TE3_i$$
$$+\gamma X_i + u_i$$
$$VerySeriousEconCsqc_i = \eta_0 + \eta_1 TH1_i TE1_i + \eta_2 TH1_i TE2_i + \eta_3 TH1_i TE3_i + \eta_4 TH1_i TE4_i + ... + \eta_5 TH4_i TE3_i$$
$$+\gamma X_i + u_i$$

$$(E.3)$$

Second stage:

$$Y_i = \alpha_0 + \alpha_1 \widehat{SatisHead}_i + \alpha_2 \widehat{VerySeriousHealthCsqc}_i + \alpha_3 \widehat{VerySeriousEconCsqc}_i + \gamma X_i + v_i \quad (E.4)$$

Tables E.11, E.12 and E.13 present the results for satisfaction with democracy, support for democracy as a regime type, and the standardized efficacy index.

In Table E.11, the point estimate on satisfaction with the head of government is very robust to the inclusion of "very serious health consequences" and "very serious economic consequences" as additional endogenous variables.

	Satisfaction with democracy			
	(1)	(2)	(3)	(4)
Satisfaction with the head of government	0.522***	0.536***	0.443**	0.443**
	(0.149)	(0.142)	(0.199)	(0.199)
Very serious health consequences			-0.026	-0.026
			(0.044)	(0.044)
Very serious economic consequences			-0.008	-0.008
			(0.037)	(0.037)
Individual controls		X		X
Country FE		X		X
Observations	22,541	22,541	22,537	22,537
Outcome mean	0.500	0.500	0.500	0.500
Instruments	16 IVs	16 IVs	16 IVs	16 IVs
Cragg-Donald statistic	1.328	1.587	0.807	0.807
Hausman test p-value			0.548	1.000
Z-test p-value			0.753	0.705

Table E.11: Impact on satisfaction with democracy, additional regressors - 2SLS.
Notes: Individual controls as defined in Table 3. Columns 1 and 2 are identical to columns 1 and 2 of Table 6 in the main paper. *** $p < .01$, ** $p < 0.05$, * $p < .1$

Table E.12 shows the impact of satisfaction with the head of government on support for democracy as a regime type. The point estimate remains non-significant, and we cannot reject the null that the estimates in the baseline and extended models are identical.

	Democracy			
	(1)	(2)	(3)	(4)
Satisfaction with the head of government	0.034	0.120	-0.132	-0.132
	(0.217)	(0.209)	(0.289)	(0.289)
Very serious health consequences			-0.021	-0.021
			(0.063)	(0.063)
Very serious economic consequences			-0.048	-0.048
			(0.053)	(0.053)
Individual controls		X		X
Country FE		X		X
Observations	22,537	22,537	22,533	22,533
Outcome mean	0.902	0.902	0.902	0.902
Instruments	16 IVs	16 IVs	16 IVs	16 IVs
Cragg-Donald statistic	1.330	1.588	0.811	0.811
Hausman test p-value			0.381	1.000
Z-test p-value			0.647	0.479

Table E.12: Impact on support for democracy, additional regressors - 2SLS.
Notes: Individual controls as defined in Table 3. Column 2 is identical to column 7 of Table 8 in the main paper. *** $p < .01$, ** $p < 0.05$, * $p < .1$

In Table E.13, the magnitude of the point estimate on satisfaction with the head of government decreases, once we control for "very serious health consequences" and "very serious economic consequences," yet we cannot reject the null that the two models are identical. The point estimate on very serious economic consequences is significant, indicating that the perception of the gravity of the economic crisis affects respondents' sense of efficacy.

	Efficacy standardized index			
	(1)	(2)	(3)	(4)
Satisfaction with the head of government	1.002*	0.990*	0.467	0.467
	(0.550)	(0.530)	(0.708)	(0.708)
Very serious health consequences			0.027	0.027
			(0.156)	(0.156)
Very serious economic consequences			-0.238*	-0.238*
			(0.131)	(0.131)
Individual controls		X		X
Country FE		X		X
Observations	22,537	22,537	22,533	22,533
Outcome mean	0.000	0.000	0.000	0.000
Instruments	16 IVs	16 IVs	16 IVs	16 IVs
Cragg-Donald statistic	1.317	1.567	0.799	0.799
Hausman test p-value			0.233	1.000
Z-test p-value			0.551	0.554

Table E.13: Impact on efficacy standardized index, additional regressors - 2SLS.
Notes: Individual controls as defined in Table 3. Column 2 is identical to column 5 of Table 7 in the main paper. *** $p < .01$, ** $p < 0.05$, * $p < .1$

E.7   Analyzing satisfaction with the regional government

In the pandemic, subnational governments often also played a relevant and visible role. Unilaterally or in collaboration with the national government, for instance, state governments in many countries made decisions about public health measures. Given our theory, we want to know, first, if our treatments affected evaluations

of regional governments' crisis management, and, second, if our results on the impact of evaluations of the head of government on democratic satisfaction are robust to accounting for evaluations of the regional government. This is not part of our main analysis, as the relevant question on regional government was quite distant from our experiment in the survey (after all the outcome variables) and it was not included in surveys conducted in Australia and the U.S. Thus, it is not included in our pre-analysis plan. With this caveat in mind, the following exploratory analysis is nonetheless instructive.

Satisfaction with the regional government is measured using the following question: "Generally speaking, are you satisfied with the way that the regional government is handling coronavirus?" Answers are recorded on a four-point scale ranging from 1 = "Completely satisfied" to 4 = "Not at all satisfied". For the analysis, the coding has been reverted and rescaled to range between 0 (not at all satisfied) and 1 (completely satisfied). Note that in contrast to the question about satisfaction with the chief executive, this question is not a summary evaluation of the regional government in that it explicitly asks about the coronavirus, priming people to think about public health related performance.

First, Table E.14 shows that the experimental treatments on the heath dimension of the crisis affect satisfaction with the regional government. Respondents who received a vignette that describes a serious health situation compared to normal years are significantly less satisfied with the regional government's management of the crisis. This is consistent with the overall argument. As one would expect, there is no corresponding significant effect of the economic treatment on satisfaction with the regional government's management of the coronavirus.

Second, Table E.15 reports results from an instrumental variable analysis including satisfaction with the regional government as an explanatory variable for satisfaction with the democracy. For comparability, as the sample reduced by two countries when analyzing satisfaction with the regional government, columns 1 and 2 in Table E.15 display our baseline specification estimating the impact of satisfaction with the head of government on satisfaction with democracy. Using all 16 instruments, this yields a result which is very close as in the full sample. Next, columns 3 and 4 use satisfaction with the regional government rather than satisfaction with the head of government as the explanatory variable. This analysis yields a large and statistically significant coefficient on satisfaction with the regional government. Finally, columns 5 and 6 include both variables as endogenous regressors. Both coefficients retain their positive sign and their size remains politically relevant, though the coefficient on satisfaction with the head of government is larger and the other variable does not reach conventional levels of statistical significance. This makes sense given that some of the experimental variation concerned the economy, and the blaming and praising treatments are explicitly about the national government.

	Satisfaction with the regional government	
	(1)	(2)
Gravity health	-0.008**	-0.008**
	(0.004)	(0.003)
Gravity economy	-0.004	-0.005
	(0.004)	(0.003)
Individual controls		X
Country FE		X
Observations	19,523	19,523
R2	0.000	0.065
Outcome mean	0.566	0.566

Table E.14: Impact of the health and economic consequences of the crisis on the satisfaction with the regional government.
Notes: Sample restricted to all countries except Australia and the U.S. Individual controls as defined in Table 3. Question: "Generally speaking, are you satisfied with the way that your regional government is handling coronavirus?" *** $p < .01$, ** $p < 0.05$, * $p < .1$

	Satisfaction with democracy					
	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with the head of government	0.497***	0.514***			0.421*	0.409*
	(0.156)	(0.145)			(0.226)	(0.216)
Satisfaction with the regional government			0.652**	0.716**	0.166	0.231
			(0.309)	(0.293)	(0.358)	(0.347)
Individual controls		X		X		X
Country FE		X		X		X
Observations	19,525	19,525	19,523	19,523	19,523	19,523
Outcome mean	0.493	0.493	0.493	0.493	0.493	0.493
Instruments	16 IVs	16 IVs	16 IVs	16 IVs	16 IVs	16 IVs
Cragg-Donald statistic	1.248	1.519	0.746	0.842	0.396	0.426
Hausman test p-value					0.638	1.000
Z-test p-value					0.783	0.687

Table E.15: Impact of satisfaction with the regional government on satisfaction with democracy.
Notes: Sample restricted to all countries except Australia and the U.S. Individual controls as defined in Table 3. Columns 1 and 2 use the same specification as columns 1 and 2 of Table 6 in the main paper. *** $p < .01$, ** $p < 0.05$, * $p < .1$

F   Pre-registration

Below you find anonymized copy of the pre-registered analysis plan for this study from the University of Pennsylvania's Credibility Lab.

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Survey experiments on political consequences of the COVID-19 pandemic (#43111)

Created: 06/17/2020 03:12 PM (PT)

This is an anonymized copy (without author names) of the pre-registration. It was created by the author(s) to use during peer-review.
A non-anonymized version (containing author names) should be made available by the authors when the work it supports is made public.

1) Have any data been collected for this study already?
No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?
The experiment is designed to examine political consequences of the COVID-19 pandemic. In particular, this study aims to assess how people's evaluation of the health situation and the economic situation shape satisfaction with the actions of the incumbent government as well as general beliefs about the functioning of democratic politics and democratic institutions. Moreover, does the relative importance of health vs. economic considerations vary across salient cleavages (age, gender, personal economic situation)?

3) Describe the key dependent variable(s) specifying how they will be measured.
Causal chain from proximate to more distant outcome variables:
(i) Assessment of consequences of COVID-19 epidemic for health and economy in the country, each on 5-point scale.
(ii) Satisfaction with the health and economic measures taken by the government to cope with the COVID-19 pandemic, each on a separate 11-point scale.
(iii) Satisfaction with head of incumbent government (11-point scale).
(iv) Efficacy. Measured with two standard items on whether politicians care about what people like me think and politics being too complicated, each on 5-point scale.
(v) Satisfaction with working of democracy (11-point scale) and evaluation of democratic and three other political systems (each on 4-point scale).
(vi) Manipulation check: Post-treatment questions on anger, fear, hope.

4) How many and which conditions will participants be assigned to?
Between-subject design. Independent randomization of 4 health information treatments and 4 economic information treatment treatments:
TH1. Positive health information.
TH2. Positive health information + government responsibility
TH3. Negative health information
TH4. Negative health information + government responsibility
In countries with sample size of N=2,000+ there is a group that receives no treatment.
The logic for economic information treatments is the same.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
Intention-to-treat analysis of treatments on outcomes (i) to (v) using linear regression.

Treatment-on-the-treated analysis: Instrumental variable analysis of effect of satisfaction with health and economic measures on outcomes (iii) to (v), where experimental treatments are used to instrument endogenous treatment variables (ii). Basic model is 2SLS without controls. Robustness check includes socio-demographic covariates.

Heterogeneity: interaction of treatments with socio-demographic characteristics including age, gender, and household income.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
No cases will be classified or excluded as "outliers". France, Germany, US: exclude those not receiving any information from main analysis.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.
The experiment is embedded in a comparative online survey and the commercial polling company attempts to balance the panel sample to be representative of each country's population of eligible voters. Target sample sizes:
N=2,000: France, Germany, Spain, US.
N=1,000: Australia, Austria, Brazil, Canada, Italy, New Zealand, Poland, Sweden, UK.
Target sample size differences are due to resource constraints unrelated to the experiment.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
Nothing else to pre-register.

References

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