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CIVIS ECONOMICUS: ANALYSING THE EFFECT OF LOCAL AND NATIONAL CRISIS EXPOSURE ON SUPPORT OF ANTI-DEMOCRATIC REFORMS

MARIE-LOU SOHNIUS

ABSTRACT: What makes citizens support anti-democratic reforms? Many factors influence democratic backsliding, and it is well known that such a move is more likely to occur at times of crises. Yet, it is often assumed that a crisis will affect citizens in an equal manner. I argue that public support of anti-democratic reforms is affected by the extent to which citizens are exposed to effects of a crisis. Building on an economic voting framework, I test my theoretical argument on the case of the Covid-19 pandemic by analysing a uniquely generated data set comprising small area estimates of 400 German states over 112 days combined with daily local and national infection rates. My findings suggest that people support anti-democratic reforms in order to contain the Covid-19 pandemic independent of personal exposure.

KEYWORDS: • Democratic backsliding • Crises • Small-area estimation
WORD COUNT: 4618

CONTENTS

1 INTRODUCTION

Why do citizens support anti-democratic reforms? For many years, political science has been concerned with this question, and yet, comparably little is known about the effect of crises on citizens' political preferences. As crises such as economic, political or natural disasters, often are a tipping point in democratic backsliding, it is crucial to understand which factors matter in explaining support of political acts destabilising democracies. Based on the economic voting theory, this article contributes to this debate by developing the argument that citizens facing crises evaluate the latter in an egocentric, prospective manner. Based on their personal expected gains and losses, a citizen would rather accept an anti-democratic reform when directly affected by a crisis and potentially benefiting from such a reform. Likewise, a rational citizen would reject such a reform when it is not beneficial enough for them to trade their democratic principles for personal gains.

Connecting longitudinal panel data from the Mannheim Corona Study (MCS) and daily local and national infection rates as reported by the Robert-Koch-Institute (RKI), I test my argument with respect to the current Covid-19 crisis. I use a small area estimation technique, global smoothing via district level predictors, to estimate local support for an anti-democratic reform expanding executive power, and find that, independent of personal exposure, citizens respond comparably to the question on whether they would provide the government with more rights to act independently from the German parliament and state governments. While this might appear to be a favourable result at first, the overall high support for such a reform has important implications. With the majority of the German districts rather supporting the reform, it appears that anti-democratic actions are evaluated under the consequentialist principle: When crises arise, the end justifies the means. In the short-term favourable for immediate political response, it leaves the question to what extent such illiberal tendencies are here to stay in the long run. Caused by crises increasing in their frequency and length, this poses an unprecedented endurance test to long-established democracies.

2 THE ECONOMIC CITIZEN

Crises have long been identified as decisive factors in democratic backsliding and are illiberal challenges to modern democracies. A crisis, being generally defined "as i) a situation posing a severe threat which ii) requires a quick response by decision-makers who iii) have to act under high levels of uncertainty" (Juhl et al., 2021; t' Hart et al., 1993), is, however, not only a challenge to a political system itself, but further often accentuates already existing weaknesses within democracies (Claassen, 2020; Scheiring, 2019). Additionally, crises enforce illiberal actions by politicians and the public by providing grounds of justification of anti-democratic behaviour in order to prevent greater harm. At times of political and economic instability, it appears that the end justifies the means.

What research, however, has not yet addressed is to what extent antiliberal reform support differs between those directly affected by such crises and those only indirectly affected. My article provides an answer to this question by connecting extant research on crises' effects on anti-democratic opinions with the field of economic voting. Economic voting, first introduced by Downs and Others (1957) and Anderson et al. (2005), describes the idea that voters within democracies are rational actors with individual preferences, who choose their political actions in a utility maximising manner. This implies that a voter, for example, will always choose to vote for the party that they believe maximises their utility the most (Lipset, 1959). Beyond this general implication, research has further explored the political consequences of such utility maximising behaviour in the context of antiliberal movements. In *Losers' Consent: Elections and Democratic Legitimacy*, Anderson et al. (2005) were among the first to demonstrate that voters whose supported party did not win an election were less satisfied with the functioning of democracy in their country. This effect, however, not only shows in party and government preferences, but also spills over to citizens' general democratic attitudes towards, for example, judicial independence. Engst and Gschwend (2020) use a discrete choice experiment and show that in favour of personal political gains, respondents are more likely to abolish the principles of judicial independence and support anti-democratic reforms strengthening the preferred government.

Given these findings, it is logical to assume that citizens also take the effect of crises into account when forming attitudes towards democratic principles. Several studies already examined the effect of crisis outbreaks on anti-democratic reform preferences. More recently, Juhl et al. (2021) analyse individuals' preferences on an anti-democratic reform during the Covid-19 crisis and find that policy heterogeneity during crises positively affects support for illiberal reforms. What the study, however, does not take into account, is the context-dependency of such effects. While one can assume citizens to be informed about the state of the nation, it also becomes apparent that due to inherently local differences in crises, taken measures and outcomes, citizens will naturally perceive the crisis differently in presence of local factors. The remainder of this article will therefore propose a new, objective measure of individual crisis exposure to investigate its effect on citizens' support of illiberal reforms and test the proposed mechanism on data collected during the most recent crisis the world faced: The Covid-19 pandemic.

3 COVID-19 AND THE DEMOCRATIC PRINCIPLE

The outbreak of the severe acute respiratory syndrome SARS-CoV-2 in 2020 posed enormous and unprecedented challenges on governments around the globe. Titled as the biggest crisis since the second World War, the pandemic affected individuals in a seemingly similar manner. When taking a closer look, however, it becomes apparent that individuals in India in 2021 were affected differently than those living on Hawaii at the same time. Comparably, within-country variation caused by the very nature of virus infections affected peoples' lives within the same political system in very unequal ways, also resulting in the policy diversity within states as discussed by Juhl et al. (2021). However, it is yet to be studied to what extent increases in personal exposure to such a global crisis might affect anti-democratic attitudes differently.

Building on initial analyses by Juhl et al. (2021) on the global pandemic, I propose to test the previously suggested personal economic mechanism of crisis exposure in light of the

Covid-19 pandemic. While my theory suggests a broader mechanism at play, the data collection efforts during the crisis resulted in the ideal research environment of my study allowing for highly accurate objective measures of individual and aggregate exposure precisely collected for every citizen in every district on every day - since the begin of global and national data collection on the crisis.

Combining the observation of exposure diversity with the previously established logic of an economic voter, one should expect a citizen personally affected by a crisis to rather support anti-democratic reforms and therefore expand executive power in order to benefit from their policies. In times of crisis, a citizen affected by the former will demand government action. Previous research has shown that at times of economic crises, this often resulted in increased support for recompensational and redistributional policies. For example Walter (2017) analysed data from 16 European countries and their citizens' exposure to Globalisation shocks and finds: Those economically exposed do demand different policies than those not affected by such crises. Also the general public's support of anti-democratic reforms has been studied by Gibler (2012) and Thompson (1996) who find that military crises are related with preferences for expanding executive power. At times of a health crisis or, in other words, a pandemic, one's personal health endangered by a virus can, beyond personal actions, only be protected by government measures such as lockdowns and contact tracing. I

However, as political science research has long acknowledged, collective protection always comes at the cost of individual freedom (Hattke and Martin, 2020). Along the continuum of individual rights and collective well-being, governments and the governed also had to consider this trade-off at times of the pandemic and, as with other matters, came to very different conclusions. Especially in democratic systems, the decision on whose rights to protect or harm is not only made by politicians but, within the logic of the principal agent model, ultimately considered in light of the government's supporting winning coalition (Bovens et al., 2014). It is a decision demanding support of the people (Mansfield and Snyder, 2002). For citizens to support a reform increasing protection and taking individual rights by abolishing the democratic principle it needs, however, more than a general crisis.

I state that a crisis only displays a positive effect on citizens' support for anti-democratic reforms when they benefit from such defection of principles upheld in democratic systems. Thus, only when allowing a government to harm democratic principles will benefit a rational citizen, they will support such an illiberal reform.

Personally witnessing the severity of the crisis and infections is, as I argue, undoubtedly more influential than seeing infection rates and hospital beds filling up on the daily news. When individuals are located in hotspot regions with high infection rates, they are aware of the increased risk linked to their region and rationally decide to support an anti-democratic reform giving the government independence from parliament and federal states in order to speed up the processes needed to protect them.

When not personally affected, a citizen is less likely to trade democratic principles for protection, as the value of liberal policy is more likely to exceed the one given to faster containment measures. Logically, a rational citizen will not demand protection from a risk they are not faced with. This results in the following hypotheses:

H1: The more local cases a district reports, the higher the district's support for the anti-democratic reform.

H2: Changes in the national infections do not influence a district's support for the anti-democratic reform.

4 ALTERNATIVE EXPLANATIONS

The theory presented above allows for many factors being considered in the utility function of citizens. Among others, the most reasonable alternative expectation is that it might, however, also be the case that citizens confronted with high local cases are well aware of the measures and liberal trade-offs that might be accompanied by giving more power to the government. In other words, when a citizen in a district with high local infection rates provides the government with more rights, they have good reasons to expect to lose personal freedoms as a consequence of enabling more centralised and quicker decision making.

When freedom is valued more highly than protection, such utility function would cause an overall negative effect of local case numbers on support of the anti-democratic reform.

5 EMPIRICAL STRATEGY

5.1 Data

In order to test the hypotheses, I use individual-level data from the Mannheim Corona Study (MCS)[1]. The sample includes over 4,000 participants. To account for changes over time while keeping response rates high, the MCS divided the sample into seven groups by weekday of the interview. Thus around 400 participants were surveyed each day, and every respondent was surveyed once a week for 16 weeks in total. The MCS data is particularly well-suited for testing my hypotheses since it entails small-scale data on district level from a probability sample which ensures that respondents from all places of the country are included. To examine how regional pandemic events affect the public willingness to give up democratic rights I combined the MCS data with data on local daily infections from the *Robert-Koch-Institut & European Centre for Disease Prevention and Control* (2020) (RKI).

5.2 Operationalisation

5.2.1 Local Public Opinion Estimation

The MCS data set entails a question item on peoples opinion towards anti-democratic reform in order to contain the Covid-19 pandemic[2]. In addition, it supplies information of each respondent's respective district number (AGS5) of their native place. Since the data

[1]This article uses data of the Mannheim Corona Study (MCS), (DOI: 10.4232/1.13700), (Blom et al., 2020). A study description can be found in Blom et al. (2020). The MCS is part of the German Internet Panel and is funded by the German Research Foundation (DFG) - Project Number 139943784 – through the Collaborative Research Center 884 "Political Economy of Reforms" (SFB 884). Additional funding for the MCS was provided by the German Federal Ministry for Labor and Social Affairs (BAMS). The panel study collected daily information on a representative sample of the German population from 20th of March 2020 to the of 10th July 2020. As the study was implemented within the German Internet Panel (GIP), survey respondents were already regular members of the GIP and have participated in regular surveys for at least 18 months prior to the crisis.

[2]The exact question wording can be found in Appendix 1

contains $n = 4,500$ respondents from 348 districts, and thereby provides insufficiently large district-level samples, I choose to model the average local public opinion by using global smoothing with district level predictors in a multilevel regression model. This potentially improves direct estimates of local public opinion by partially pooling district-specific subsample information with district characteristics and allows us to make somewhat reliable out-of-sample predictions for districts not included in the survey data by smoothing estimates towards the average opinion of places that share similar characteristics (Hanretty et al., 2018). Since the goal my model for public opinion estimation is achieving more reliable estimates and not the estimation of causal effects, I include a broad collection of some socio-structural information from the *Bundesagentur für Arbeit Statistik*[3] which are available at the municipality-level (AGS8) for 2020. Since the municipalities are nested in the districts (AGS5), I retrieved exact socio-structural information on district-level by aggregating my municipality-level information. To not only capture social-structural characteristics but also assess political circumstances, I included election results from the 2017 general election (*Erststimmen*) on municipality level (AGS8) available at the *Bundeswahlleiter* (Federal Returning Officer), and retrieved average election results across all districts j (AGS5).

The socio-structural district characteristics[4] and average election results of the CDU/CSU, SPD, FDP, Greens, Left and AfD from the 2017 election, X_k, are used in a multilevel model with state fixed effects (to capture geographical dependencies between constituencies) to improve direct estimates of district specific public opinion P_k, which are modelled hierarchically with variance σ_P^2, where β is a vector of respective coefficients:

$$P_k^{district} \sim N(X_k\beta, \sigma_P^2) \; for \; k = 1, ..., K$$

The higher the (unobserved) R^2 between X_k and P_k, the more will my public opinion estimates improve (Hanretty et al., 2018).

Figure 1 shows the public opinion towards the consent for the anti-democratic reform

[3] *Bundesagentur für Arbeit: Tabellen, Arbeitsmarkt kommunal, Nürnberg* (n.d.)
[4] See Appendix

before and after global smoothing. Smaller values represent lower, larger values represent higher consent for the anti-democratic reform. We can see that global smoothing substantially shrinks my estimates towards the sample mean, suggesting substantial improvement of the indicator. I use those estimates as the dependent variable in my analyses.

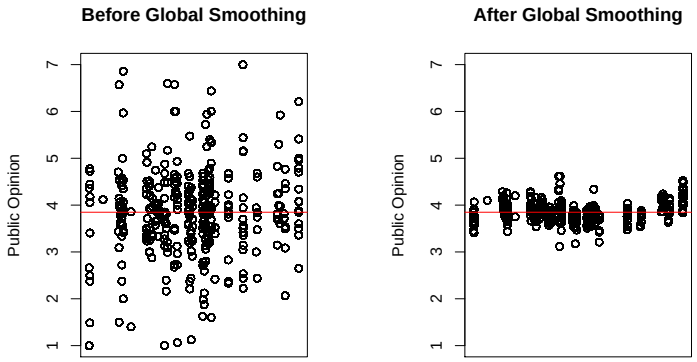

Figure 1: Public Opinion Estimates

5.2.2 Independent Variables

To test my argument and predict public opinion towards the invalidation of democratic processes in order to contain the Covid-19 pandemic, I include several independent variables in my model. To test the argument of local infections positively affecting the consent for anti-democratic reforms, I introduce daily local infections on district level as the main independent variable. To assess whether or not national circumstances exert an effect on public opinion, I additionally include daily national infections.

To facilitate comparability, I re-scaled the independent variables of local and national infections to percentages ranging from 0 to 100. Dividing the daily local and national case number by the maximum cases reported on each level, I obtain a standardised measure of cases indicating the severeness of the crisis in a nationally and time-concerning consistent manner. Estimates are calculated as follows:

$$\%level_t = \frac{level_t}{max\{level_t\}}$$

where level corresponds to the national and local level and t being defined as the corresponding date.

6 ANALYSIS

To test the effects of national and local cases on peoples consent to give up democratic rights, I employ a fixed effects linear regression model. I assume the suggested effect to be similar across countries, which is why I add country-dummy variables that implicitly account for all (unobserved) country level confounding variables.

I estimate one intercept α for each country j consisting of multiple postal code areas i to a given point in time. All observations i that belong to group j share the same intercept. X_i is a matrix consisting of daily new infections on the district level, as well as the daily national cases.

$$y_{ij} = \alpha_{j[i]} + X_i\beta + \epsilon_i$$

To substantially interpret my results, I simulate various quantities of interest as proposed by (King et al., 2000), namely expected values of public opinion towards the anti-democratic reform by both local and national cases, as well as their first differences, visualising them over the range of daily infection rates. To do so, I take 10,000 draws from the multivariate normal distribution of my coefficients and define my scenario as the range of my standardised measure of local and national severeness of infection rates.

To validate my results and consider the contingency that the local infection rate may be evaluated differently by individuals when confronted with various levels of national severeness, I further include an interaction term of both variables in my regression model and simulate expected values. Possibly, public opinion towards anti-democratic reform is affected

in a different fashion when both national and local infection rates are high than when only one of them appears critical.

Furthermore, to not only inspect *average cases* I present a comparison between two extreme cases of local infection rates and their corresponding expected values in consent to anti-democratic reform.

7 RESULTS

7.1 Visual Inference

Before turning to the statistical analysis, I make use of the spatial data I collected and take an initial glimpse at the visual inference of the proposed correlation. I plot the district-level cases of one of the most severe days being the first of April 2020 in Figure 2. With lighter coloured areas displaying more severely affected areas and darker colours indicating comparably low local case numbers, it becomes quite clear that, in fact, the crisis affected local areas differently and would therefore be oversimplified by analysing national infection rates alone.

Turning to the predicted rights by my smoothing estimator in Figure 3, there appears to be some correlation. Those areas previously lighter in Figure 2 are, on average, darker coloured in Figure 3. This would suggest the opposite of the previously theorised mechanism and might be initial evidence for a possible negative relationship between local infection rates and supporting an anti-democratic reform.

7.2 Base Model

Moving on to the statistical analysis, my base model estimates the effect of both national and local infections on public opinion towards anti-democratic reform. Model 1 in Table 1 shows the results[5]. National infections do not seem to exert a substantial effect on peoples consent to anti-democratic reform which is in line with *H2*. Local infections, on

[5] see Appendix

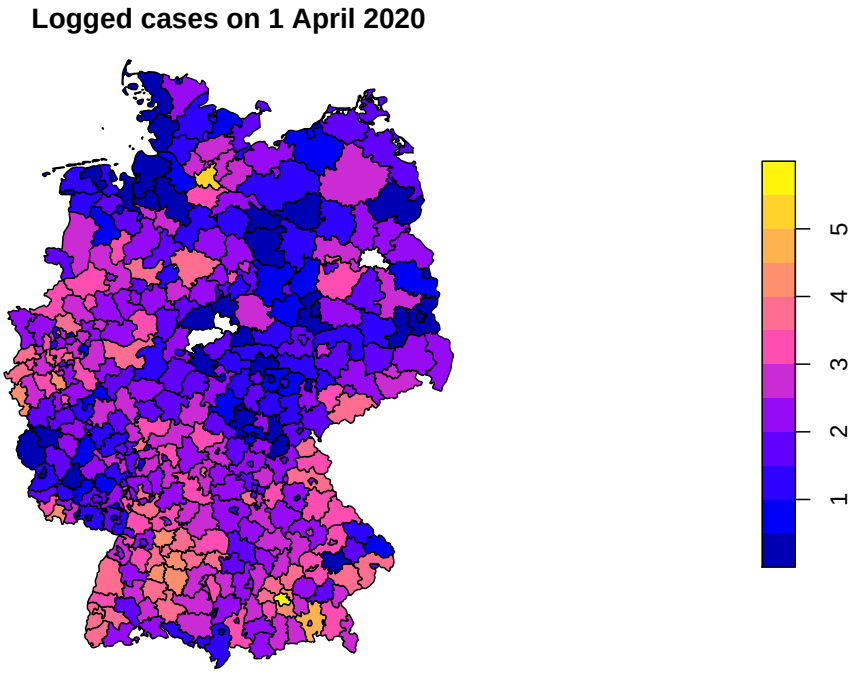

Figure 2: Local Covid-19 Case Numbers in Germany on the First of April 2020

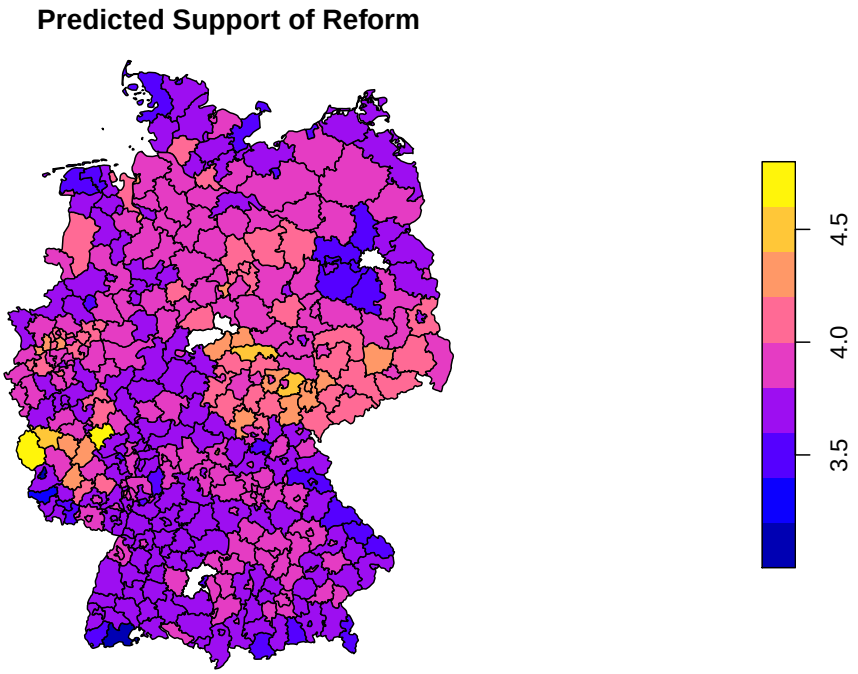

Figure 3: Predicted Support for the Reform by District Given the Local Cases on the First of April 2020

the other hand, have a negative effect which is statistically significant on a 95% confidence interval level, suggesting the reverse of *H1*.

Figure 4 visualises the expected values of consent to anti-democratic reform by both local and national infections, as well as their first difference. It indicates that when the reported infections in a given district exceed about 40% of the maximum number of cases reported on a given day, the difference in expected consent to anti-democratic reform substantially decreases. This difference grows even larger with increasing local infection rates. However, I am cautious about substantially interpreting this difference since I have an insufficiently large pool of districts that have such a high share in daily infections, as indicated by the rug plot in the lower left corner of the figure which indicates the common support of my predictions.

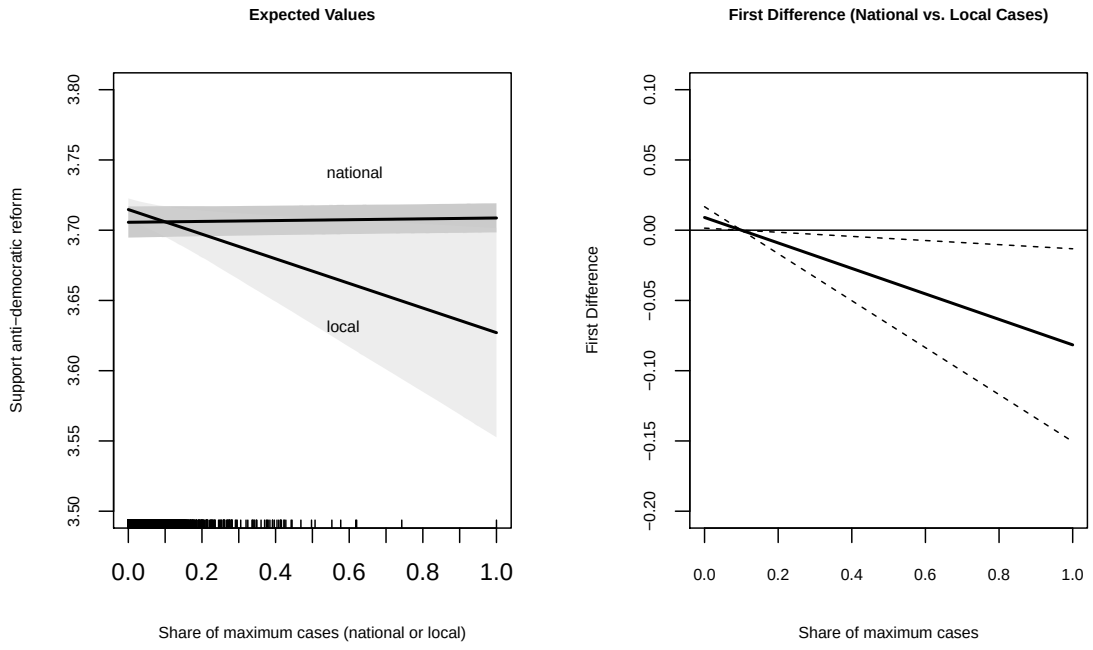

Figure 4: Base Model: Expected Values and First Difference

7.3 Interaction Model

To examine whether or not the national and local infection rates are evaluated independently, Model 2 in in Table 1 shows the results of interacting national and local infections.

Neither of the constitutive terms is statistically significant, while the interaction term itself is negative and statistically significant on a 90% confidence interval level. In order to substantially interpret this, I again simulate expected values of consent to anti-democratic reform by defining my scenarios as 10, 30 and 70 % of local cases accounting for the daily maximum along with the national infection rate. To compare those estimates, I calculate first differences between the scenarios with 10% and 70% of local cases accounting for the daily maximum. We can see that when national cases become relatively high, more infections on the local level lead to less support for anti-democratic reform. This reveals that local and national infection rates are indeed not being evaluated independently. However, the first difference in expected public opinion towards anti-democratic reform between local cases of 10% and 70% is not statistically significant until a value of 60% share of maximum national cases, which is why I am cautious with making substantial interpretations.

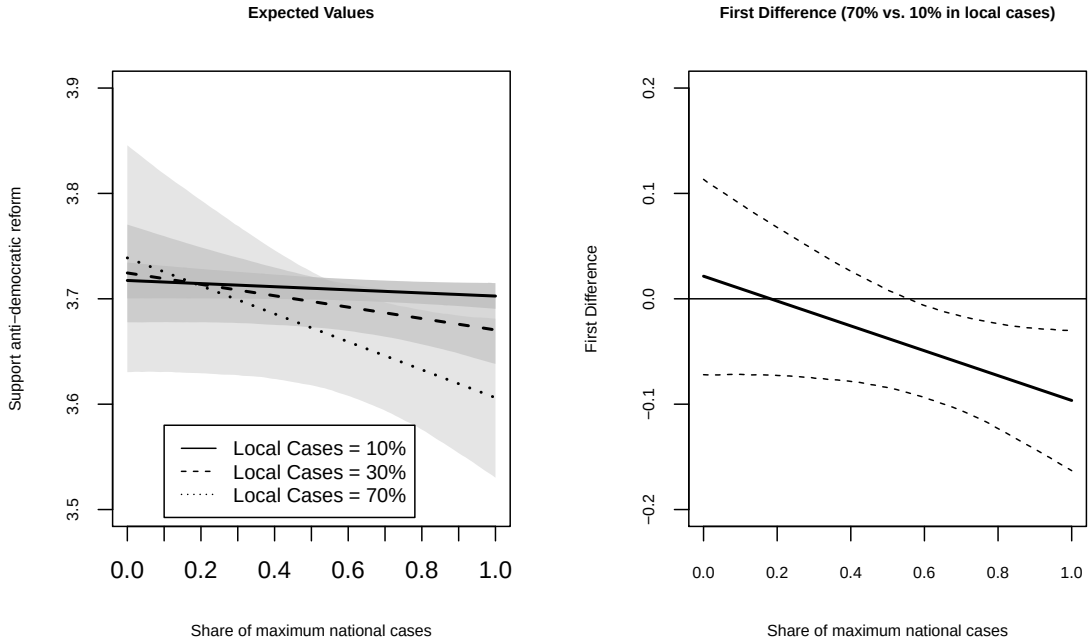

Figure 5: Interaction Model: Expected Values

7.4 Comparing Cases

But what does that mean in practice? To facilitate understanding I apply my model to a specific case, relying on the same date as previously, the first of April, I compare Munich and the region Regen, which are both located in Bavaria and estimate their respective expected reform support.

Beginning with Munich, a region reporting over 300 cases on that day, I expect citizens located in the area to support the reform with an average of 4.11 points on a scale from 1 to 7. With 95% confidence, I expect this value to lie between 4.02 and 4.19 points. This is a relatively high support for such a reform, which is not surprising given the severeness of the local situation.

Turning to the region of Regen, however, I do not see significantly different results. Rounded estimates of my simulation show a similar support of around 4.11 points. With 95% confidence, this value lies between 4.08 and 4.14.

The first difference between the two expected values is at around -0.002. The 95% confidence interval includes 0, ranging from -0.08 to 0.07, which moves us to the conclusion that the first difference is not statistically significant. Therefore, there is no evident significant effect of being locally exposed to the shock compared to nationally.

8 ROBUSTNESS CHECKS

One important consideration when applying global smoothing to retrieve more reliable district public opinion estimates is the number of district level predictors to include in the smoothing model. Since I assume that the effects of district level variables are related to each other by their hierarchical structure, it is reasonable to test whether the relatively high amount of 19 district level predictors leads my model to overfit the data (Lax and Phillips, 2013), and consequently my public opinion predictions to be based on regressors that are not or insufficiently relevant/related to them. To test whether the findings of my interaction model persist when restricting the amount of district level predictors in my global smoothing

model, I once use only the socio-structural variables and once only the party turnout variables to predict my public opinion variable. Models 3 and 4 in Table 1 show the regression estimates for the models in which my public opinion variable is now based on the restricted global smoothing models[6]. As we can see, the coefficients and their level of statistical significance differ across the three models. In Model 3, which contains the public opinion estimates from the global smoothing model restricted to the socio-structural indicators, the interaction term loses statistical significance. In Model 3, which contains the public opinion estimates from the global smoothing model restricted to the party turnout indicators, the interaction term gains statistical significance. This is evidence that my model is highly sensitive to the specification of the global smoothing model, underpinning that there seems to be no identifiable pattern of how local and national cases in combination affect public opinion towards anti-democratic reform.

Figure 7 and 8 show the simulation results for public opinion towards anti-democratic reform based on the restricted selections of district level indicators in the global smoothing model[7]. The suggested broader pattern of my main interaction model persists - the more a citizen is being confronted with higher infection levels in their area, the less they seem to support anti-democratic reform, particularly when facing a higher national infection rate. However, since the first difference is not statistically significant in the most frequent cases, namely days which account for less than 50% of the day where the maximum cases were reported, I do not draw any substantial conclusions due to the lack of common support (Hainmueller et al., 2019).

To further illustrate how specifying the average local public opinion variable affects my model estimates, I ran another model using the original, and thus rather unrepresentative, average values of public opinion as the dependent variable. Model 5 shows that none of the coefficients shows a substantial effect (Note that the number of observations is smaller than that of the other models due to the out-of-sample predictions made by the local smoothing models).

[6] See Appendix
[7] See Appendix

To further investigate the robustness of my findings, I ran my main interaction model on six bootstrapped sub-samples consisting of $\frac{2}{3}$ of the original data set. To see if my findings from Model 2 remain stable, I visualised the first differences between the scenarios with 10% and 70% of local cases accounting for the daily maximum of all six models in Figure 6. As we can see, the previously suggested pattern of higher local cases leading to less support of anti-democratic reform, especially when facing higher national infection rates, does not hold when running the model on bootstrapped samples from the data. This further underpins that I cannot make substantial statements about the suggested relationship between local and national happenings and their impact on public opinion towards anti-democratic reform.

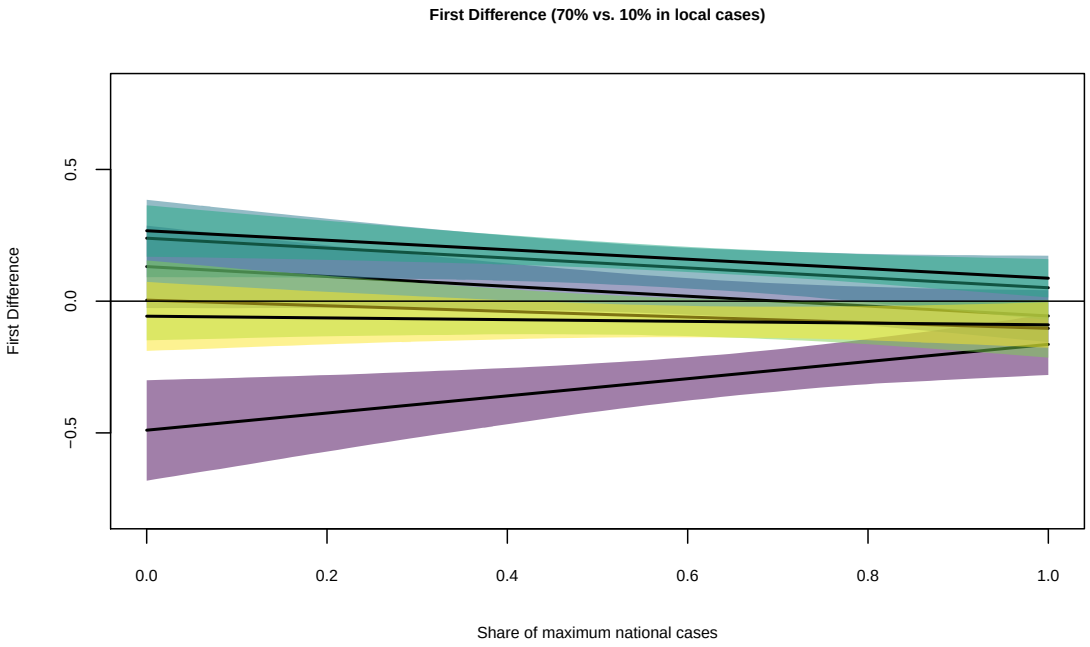

Figure 6: First Difference of Interaction Model From Six Bootstrapped Samples

9 DISCUSSION

What role does it play when a citizen is personally exposed to a crisis in relation in explaining support of anti-democratic reforms? This paper used novel data from the Mannheim

Corona Study, the Bundesamt for Statistik and the Robert-Koch-Institute to analyse whether those personally exposed to the Covid-19 crisis displayed different attitudes towards such reforms. Applying small area estimation techniques, I find null-effects for such correlation that are robust to several tests. Independent of personal exposure, citizens respond comparably to the question on whether they would provide the government with more rights to act independently from the German parliament and state governments.

In summary, this is good news. However, presented results need to be considered in a more general framework. Given the scaling of my dependent variable ranging from 1 to 7, with over 50% responding to rather support such a reform and another 10% being indifferent about the reform's implementation, my data suggests that at times of crisis a majority of the German population would rather weaken democratic processes in favour of government effectiveness. In the short-term, this trade-off might be favourable, in the long-term this, nonetheless, is of crucial importance. With democratic backsliding and the recent post-democratic movements all across established democratic systems, already destabilised democracies are currently more vulnerable to external shocks. If these shocks move citizens to further support anti-democratic reforms, this is, in fact, troubling for democracies more generally. Facing the current Covid-19 pandemic as well as the ongoing and the rapidly deteriorating climate crisis, this trend might not be a temporary blip but here to stay. Therefore, more research needs to be done to understand the holistic mechanisms behind crises and anti-democratic attitudes and more importantly to estimate the longevity of such crises' effects. As research has already demonstrated, global crises are here to stay. It is yet to be seen whether democracies will pass such endurance tests - or slowly erode away by the anti-democratic waves of crises.

REFERENCES

Anderson, C. J., Blais, A., Bowler, S., Donovan, T. and Listhaug, O. (2005), *Losers' Consent: Elections and Democratic Legitimacy*, Oxford University Press, Oxford.

URL: *https://oxford.universitypressscholarship.com/10.1093/0199276382.001.0001/acprof-9780199276387*

Blom, A. G., Cornesse, C., Friedel, S., Krieger, U., Fikel, M., Rettig, T., Wenz, A., Juhl, S., Lehrer, R., Möhring, K. and Others (2020), High frequency and high quality survey data collection, *in* 'Survey Research Methods', Vol. 14, pp. 171–178.

Bovens, M., Goodin, R. E. and Schillemans, T. (2014), *The Oxford handbook public accountability*, Oxford University Press.

Bundesagentur für Arbeit: Tabellen, Arbeitsmarkt kommunal, Nürnberg (n.d.).

Claassen, C. (2020), 'Does public support help democracy survive?', *American Journal of Political Science* **64**(1), 118–134.

Downs, A. and Others (1957), 'An economic theory of democracy'.

Engst, B. G. and Gschwend, T. (2020), 'Attitudes on Judicial Independence'.

Gibler, D. M. (2012), *The territorial peace: Borders, state development, and international conflict*, Cambridge University Press.

Hainmueller, J., Mummolo, J. and Xu, Y. (2019), 'How much should we trust estimates from multiplicative interaction models? Simple tools to improve empirical practice', *Political Analysis* **27**(2), 163–192.

Hanretty, C., Lauderdale, B. E. and Vivyan, N. (2018), 'Comparing strategies for estimating constituency opinion from national survey samples', *Political Science Research and Methods* **6**(3), 571–591.

Hattke, F. and Martin, H. (2020), 'Collective action during the Covid-19 pandemic: The case of Germany's fragmented authority', *Administrative Theory & Praxis* **42**(4), 614–632.

Juhl, S., Lehrer, R., Blom, A. G., Wenz, A., Rettig, T., Krieger, U., Fikel, M., Cornesse, C., Naumann, E., Möhring, K. and Others (2021), 'Preferences for Centralized Decision-Making in Times of Crisis: The COVID-19 Pandemic in Germany'.

King, G., Tomz, M. and Wittenberg, J. (2000), 'Making the most of statistical analyses: Improving interpretation and presentation', *American journal of political science* pp. 347–361.

Lax, J. R. and Phillips, J. H. (2013), How should we estimate sub-national opinion using MRP? Preliminary findings and recommendations, *in* 'annual meeting of the Midwest Political Science Association, Chicago', Citeseer.

Lipset, S. M. (1959), 'Some social requisites of democracy: Economic development and political legitimacy', *The American political science review* **53**(1), 69–105.

Mansfield, E. D. and Snyder, J. (2002), 'Democratic transitions, institutional strength, and war', *International Organization* pp. 297–337.

Robert-Koch-Institut & European Centre for Disease Prevention and Control (2020).

Scheiring, G. (2019), 'Dependent development and authoritarian state capitalism: Democratic backsliding and the rise of the accumulative state in Hungary', *Geoforum* .

t' Hart, P., Rosenthal, U. and Kouzmin, A. (1993), 'Crisis decision making: The centralization thesis revisited', *Administration & Society* **25**(1), 12–45.

Thompson, W. R. (1996), 'Democracy and peace: putting the cart before the horse?', *International organization* pp. 141–174.

Walter, S. (2017), 'Globalization and the demand-side of politics: How globalization shapes labor market risk perceptions and policy preferences', *Political Science Research and Methods* **5**(1), 55–80.

APPENDIX

Question wording of dependent variable

Wie sehr stimmen Sie der folgenden Aussage zu? Um die negativen Auswirkungen der Corona-Pandemie für die Gesellschaft einzudämmen, sollte die Bundesregierung weitreichende Maßnahmen auch ohne Zustimmung des Bundestags oder der Bundesländer beschließen.

○ *stimme überhaupt nicht zu [ANSWER 1.0]*

○ *- [ANSWER 2.0]*

○ *- [ANSWER 3.0]*

○ *- [ANSWER 4.0]*

○ *- [ANSWER 5.0]*

○ *- [ANSWER 6.0]*

○ *stimme voll und ganz zu [ANSWER 7.0]*

Municipality Level Indicators

- percentage of males subject to social security contributions (employed)
- percentage of females subject to social security contributions (employed)
- percentage of foreigners subject to social security contributions (employed)
- percentage of people younger than 25 subject to social security contributions (employed)
- percentage of people older than 55 subject to social security contributions (employed)
- percentage of commuters being subject to social security contributions (employed)
- percentage of long term unemployed people
- percentage of males not subject to social security contributions (unemployed)
- percentage of females not subject to social security contributions (unemployed)
- percentage of foreigners not subject to social security contributions (unemployed)
- percentage of people younger than 25 not subject to social security contributions (un-

employed)

- percentage of people older than 55 not subject to social security contributions (unemployed)

FE Regression Models with Global Smoothing

Table 1: FE Analyses of Determinants of Anti-democratic Attitudes

	Dependent variable:				
	(1)	(2)	(3)	(4)	(5)
	Base Model	Interaction Model	Socio-Structural Global Smoothing	Political Global Smoothing	(5) Average Public Opinion without Smoothing
Local Infections	−0.087**	0.035	−0.002	0.032	−0.294
	(0.037)	(0.079)	(0.087)	(0.021)	(0.444)
National Infections	0.003	0.005	0.004	0.002**	−0.003
	(0.003)	(0.003)	(0.004)	(0.001)	(0.020)
Local × National		−0.195*	−0.143	−0.102***	0.433
		(0.111)	(0.122)	(0.030)	(0.629)
Constant	3.714***	3.714***	3.680***	3.746***	3.152***
	(0.004)	(0.004)	(0.005)	(0.001)	(0.025)
Observations	45,087	45,087	45,087	45,087	37,855
R^2	0.358	0.358	0.459	0.929	0.066
Adjusted R^2	0.358	0.358	0.459	0.929	0.065
Residual Std. Error	0.167 (df = 45070)	0.167 (df = 45069)	0.183 (df = 45069)	0.045 (df = 45069)	0.922 (df = 37837)
F Statistic	1,572.881*** (df = 16; 45070)	1,480.609*** (df = 17; 45069)	2,247.758*** (df = 17; 45069)	34,540.360*** (df = 17; 45069)	157.058*** (df = 17; 37837)
Note:					*p<0.1; **p<0.05; ***p<0.01

FE Regression Models based on restricted Global Smoothing

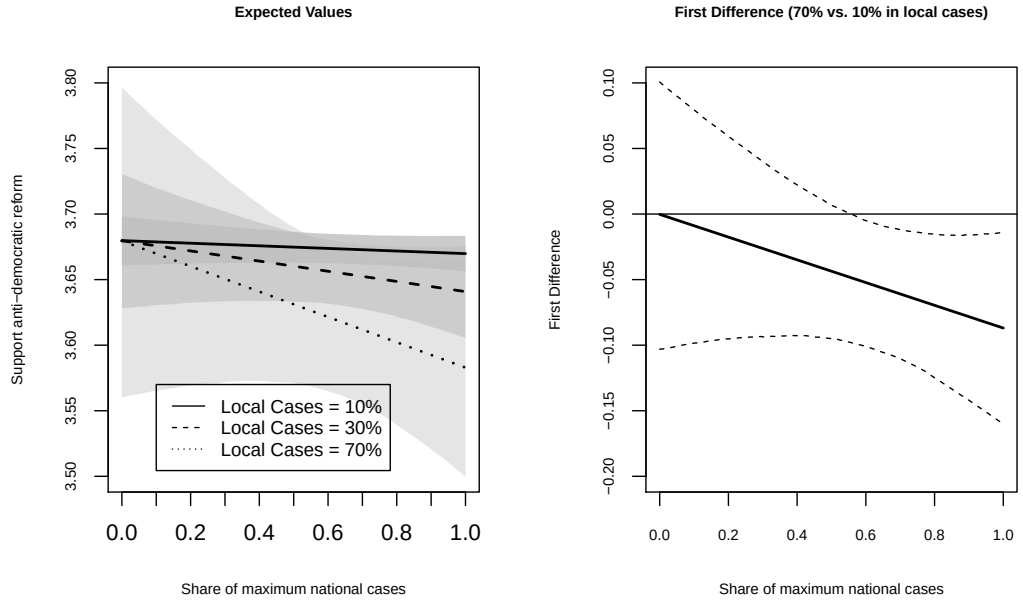

Figure 7: Expected Values and First Difference using only Socio-Structural Indicators for Global Smoothing

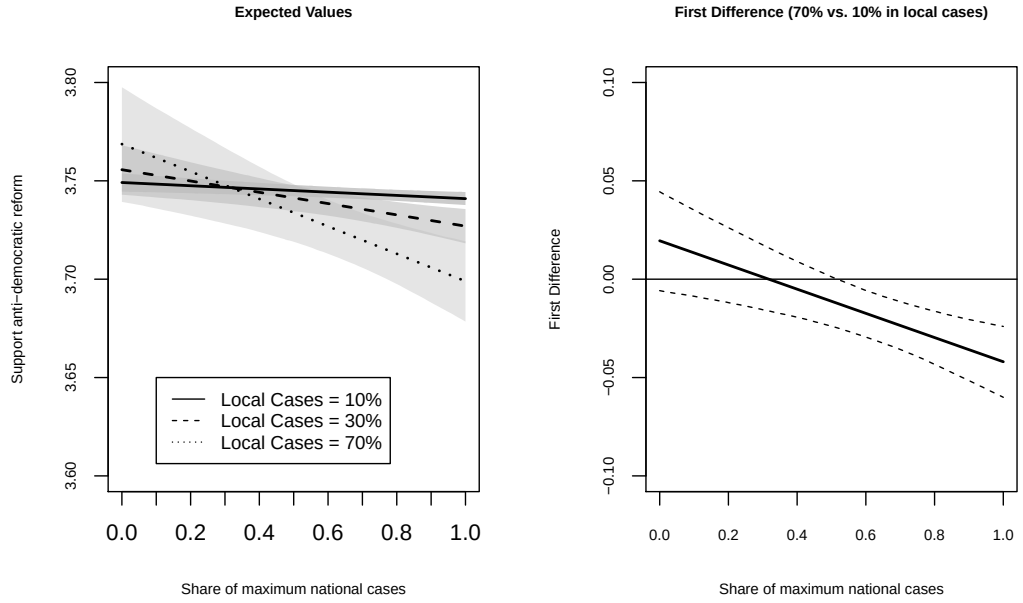

Figure 8: Expected Values and First Difference using only Party Turnout Indicators for Global Smoothing