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ABSTRACT

Careful What You Say: The Effect of Manipulative Information on the 2013 Czech Presidential Run-off Election[*]

We exploit a quasi-natural experiment that emerged during the Czech presidential run-off election to identify the impact of inaccurate and misleading information on electoral outcomes. A political campaign associated a vote for one of the candidates with a legally and politically unfounded risk relevant to people owning houses confiscated from ethnic Germans after the Second World War. Using municipalitylevel data in a difference-in-differences framework, our analysis suggests that the manipulative campaign affected the electoral outcomes and increased voter turnout in municipalities with a higher share of voters at risk of the unproven threat to housing ownership.

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1   Introduction

The 2016 US presidential election started a debate on the effects of fake news on voting behavior.[1] The literature finds a correlation between fake news and support for populist parties (for a review, see Cantarella et al., 2020), but evidence of a causal channel between voting and fake news is limited. Barrera et al. (2020) conducted an experiment before the French presidential election in 2017 to confirm that the exposure to fake news increased intentions to vote for the populist candidate Marine Le Pen. Cantarella et al. (2020) exploit language differences across two provinces in Italy to test the causal effect of fake news on support for populist parties.

We add to this literature by identifying the effect of inaccurate and manipulative information on two electoral outcomes: support for candidates and voter turnout. We exploit a quasi-natural experiment that emerged during the Czech presidential election run-off: a manipulative political campaign that associated a vote for one of the candidates with legally and politically unfounded threats to housing ownership in some municipalities. Such a setup allows us to use administrative municipality-level data to identify the causal effect in a difference-in-differences framework.

2   Czech presidential election in 2013 and historical background

In January 2013, the Czech Republic held the first presidential election decided by direct universal suffrage. As no candidate won a majority in the first round on January 12th, the two top candidates, Miloš Zeman and Karel Schwarzenberg, proceeded to the run-off election. During a 14-day period, the two candidates ran an intense campaign. On January 26th, Zeman won 54.8% of the second-round election and became the president. Voter turnout in both rounds reached 60%.

A major turning point in the campaign emerged in a televised debate held on January 17th. Schwarzenberg became embroiled in the sensitive issue of the expulsion of long-settled ethnic Germans in the aftermath of the Second World War (WWII), which shaped the current property ownership of Czech citizens. Between 1945 and 1946, the Czechoslovak government, led by President Edvard Beneš, forcibly expelled 3 million ethnic Germans from the country and redistributed their houses to new owners.

In February 1948, after the Communist coup, the Communist government started mass confiscation of private property and nationalization of industry. People who did not oppose the Communist regime could retain their houses.

Four decades later, after the fall of the Communist regime in 1989, the freely-elected government began the restitution of seized property to the original owners or rightful heirs. Restitution laws limited restitution to citizens with Czechoslovak citizenship and to property confiscated by the former Communist regime. Therefore, expelled Germans were not eligible to receive restitution or compensation. The property restitution was a lengthy process and politically a complex issue. In November 2012, just two months before the presidential election, an act on returning property to churches was adopted after a years-long political debate. Thus, property restitutions again resonated in the public discourse at the time of the presidential elections.

During a televised presidential debate, Zeman asked Schwarzenberg to confirm his earlier statement that "it is necessary to return citizenship and property to Sudeten [ethnic] Germans". Schwarzenberg replied without confirming or denying the statement saying that "what we did in [19]45 [i.e., expulsion of ethnic Germans] would be today condemned as a serious violation of human rights, and the government, including president Beneš, would be in The Hague [i.e., prosecuted by the Hague Tribunal]". Zeman swiftly replied that in that case Schwarzenberg considers one of the presidents of Czechoslovakia to be a war criminal. Zeman was even more blunt in the following debate saying that ". . . he who labels (. . .) one of the presidents of Czechoslovakia as a war criminal, speaks as a 'sudeťák' [a pejorative term for an ethnic German] and not as a president".

After the presidential debate, topics surrounding the Beneš decrees (laws named after President Edvard Beneš that provided legal ground for the property confiscation and expulsion of ethnic Germans) and property restitutions escalated in the media and public discourse. Online-based behaviour illustrates people's concern (Corbi and Picchetti, 2020). Figure 1 shows a considerable increase in the magnitude of Google searches for the Beneš decrees shortly after the presidential debate. The anti-Schwarzenberg campaign presented Schwarzenberg's statement as treason in regard to national interests and as a threat to current owners of confiscated German property. Figure 2 shows an anti-Schwarzenberg poster published in a major daily newspaper on January 25th The last point on the poster states: "He [Schwarzenberg] considers the Beneš decrees to be void and thus paves the way for the restitution of property to the descendants of war criminals". Such an interpretation of Schwarzenberg's statement can be considered manipulative as there was no legal ground for such restitutions, and Czech presidents today have only limited executive power and cannot influence restitution programs.

In this paper, we hypothesize that the spread of manipulative information based on Schwarzenberg's statement in the political campaign led to higher voter turnout (i.e., activation of citizens) and lower support for Schwarzenberg in municipalities with a higher number of homeowners residing in confiscated German houses.[2]

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[2]Schwarzenberg is a descendant of the Czech line of the House of Schwarzenberg, one of the most
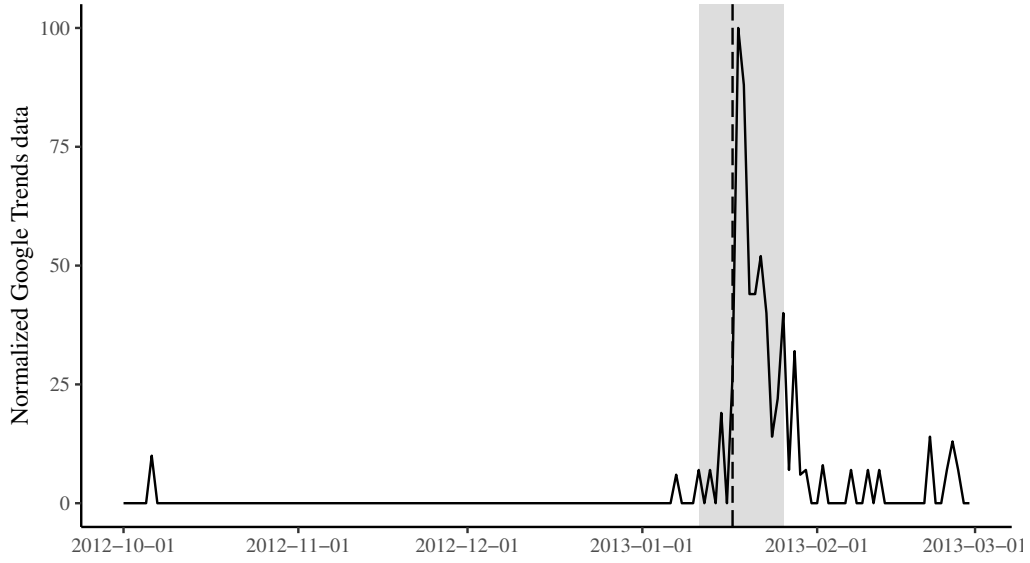
Figure 1: Google searches for the Beneš decrees ("Benešovy dekrety") in the Czech Republic

Source: Own elaboration based on Google Trend data, Note: Daily data. The period of 14 days between the first and second election round is marked in grey. The dashed line marks the date of the televised debate on January 17th.

3 Data

Our dataset includes 6,160 municipalities for which we observe voting outcomes in two rounds of the election.[3] Our treatment variable T_i is the share of voters at risk of a hypothetical property restitution confiscated under the Beneš decrees in a municipality i calculated as follows:

$$T_i = G_{(i,1930)} \times P_{i,2013} \tag{1}$$

where $G_{(i,1930)}$ measures the share of ethnic Germans residing in the municipality in 1930 and P_i is the share of homeowners residing in houses built before WWII in the adult population in 2013.[4]

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prominent European noble houses. The family property was confiscated by the state in the summer of 1947 on the basis of *Lex Schwarzenberg* and not through the Beneš decrees because the family was known for its anti-Nazi stance and it supported the Czechoslovak government-in-exile. The family property was not subject to restitution and therefore some may perceive that Schwarzenberg himself could benefit from changing property restitution laws.

[3]Voting data are available at `volby.cz/opendata/prez2013/prez2013_opendata.htm`. The sample includes 98.4% municipalities with 99.7% eligible voters because data from the 1930 census are missing for some municipalities.

[4]As the 1930 census does not contain information on house ownership by ethnicity, we rely on the share of ethnic Germans residing in a municipality to approximate their housing stock (for details see Guzi et al., 2021). P_i is the ratio of the population 16+ years old residing in houses constructed before WWII from the

Figure 2: Anti-Schwarzenberg poster ("Do not vote for Karel Schwarzenberg") published in the Blesk daily newspaper

Source: Blesk on 25th January 2013

Note: Text on the poster: Don't vote for Karel Schwarzenberg • he said that President Eduard Beneš should be brought before the Hague tribunal for war criminals under today's laws, • he thanks the Sudetendeutsche Landsmannschaft [Sudeten German Homeland Association] leader Bernd Posselt for his support, • he considers the post-war expulsion of Germans to be unjust, without taking into account the Munich Dictate, the occupation of Czechoslovakia and the hundreds of thousands of Czech victims of World War II, • he considers the Beneš decrees to be void and thus paves the way for the restitution of property to the descendants of war criminals.
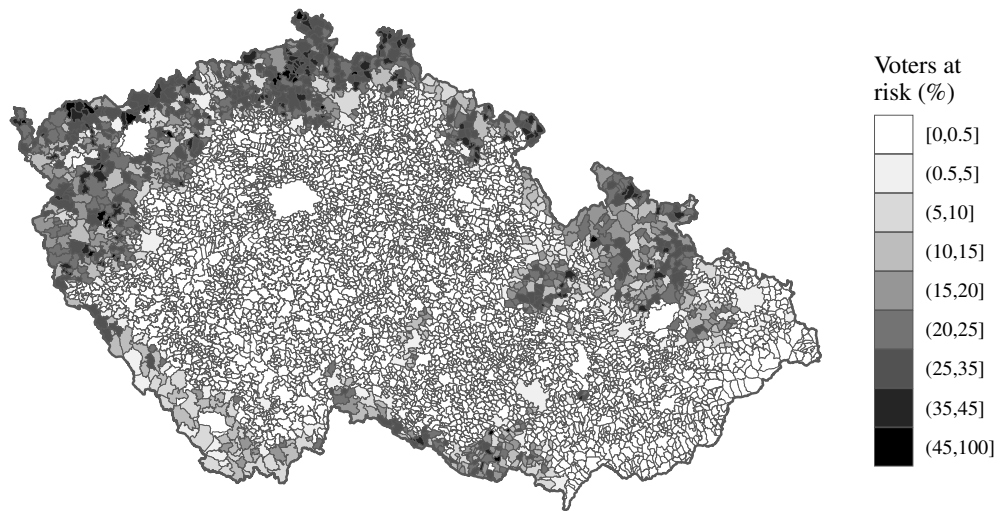
Figure 3: Voters at risk (6,160 municipalities)

Source: Own elaboration.

Figure 3 shows the geographic distribution of voters at risk. Less than 40% of municipalities have zero voters at risk and the mean value in municipalities with voters at risk is 7.5%. Municipalities with the most voters at risk are in regions near the German and Austrian borders—in the then-called Sudetenland where ethnic Germans had lived before WWII. Figure 4 illustrates that resettlement and urbanization processes over 70 years have created a considerable variation between our treatment variable and the share of ethnic Germans in 1930.

The correlation between our treatment variable and the changes in electoral outcomes between two election rounds is highly statistically significant (Figure 5 shows t-statistics). As conjectured, the support for Schwarzenberg (Zeman) is lower (higher) and election turnout is higher in municipalities with more voters at risk. Next, we test these results in the regression analysis.

2011 census and the population of eligible voters (18+ years old) in 2013. When a house is reconstructed, the year of reconstruction instead of the year of construction is recorded in the census. Hence, we likely underestimate the share of voters at risk.

Figure 4: Municipalities by the share of voters at risk and ethnic Germans in 1930

Source: Own elaboration, Note: The figure shows only municipalities with at least 5% of ethnic Germans in 1930 (1,425 municipalities).

Figure 5: Changes in electoral outcomes between two election rounds and treatment intensity

Source: Own elaboration. Note: The *x*-axis is a treatment intensity defined in (1) and the *y*-axis is the difference (in p.p.) in electoral outcome between second and first round in the municipality.

4 Estimation strategy

We use panel data and a difference-in-differences framework in the spatial error model (SEM):

$$y_{ir} = \beta R_r + \gamma T_i R_r + \theta_i + u_{ir} \tag{2}$$

$$u_{ir} = \lambda \mathbf{W} u_{ir} + \varepsilon_{ir} \tag{3}$$

where i indicates municipality and r the election round. The dependent variable y_{ir} is the electoral outcome (support for presidential candidates defined as a share of casted votes on eligible voters and voter tur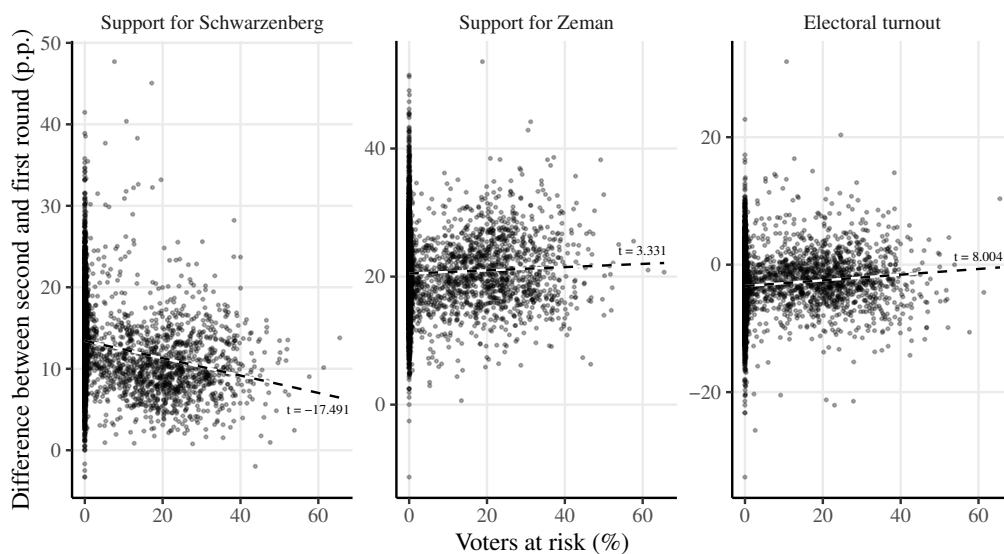nout), T_i is the treatment variable defined above, R_r is an indicator variable of the second round, and θ_i is a full set of municipality fixed effects that remove time-invariant effects, including those referring to geography, culture, and economic development. The key parameter of our analysis is γ that identifies the effect of the political campaign on the election results in the second round. Spatial auto-correlation in error term u is modelled in Equation (3), where $\mathbf{W}$ is a row standardized spatial contiguity weight matrix with individual nonzero weights for neighbouring municipalities,[5] and ε is a well-behaved error term.

While our preferred specification uses municipal fixed effects, we consider an alternative specification that includes municipality characteristics such as the share of voters at risk and political preferences (we include the votes of candidates who did not proceed to the run-off).

Our identification strategy assumes that the spread of manipulative information in the political campaign was the only relevant event that took place between electoral rounds. We consider the treatment effect a lower bound estimate, while the true effect may be larger for at least two reasons. First, we likely underestimate the share of voters at risk because the threat to housing ownership may affect people who expect inheritance or owners not occupying their property who are not counted. Second, we assume that the effect of the campaign is linked with the ownership of expropriated properties while we omit other channels, such as anti-German or nationalist sentiments that might also have affected the outcome of the run-off.

5 Results and concluding remarks

Our analysis confirms that the manipulative campaign based on Schwarzenberg's statement significantly affected electoral outcomes. Estimates in Columns 1–3 in Table 1 imply that in a municipality with 7.5% of voters at risk (mean value), the support for

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[5]In an alternative specification, we assign nonzero weights to municipalities within a 30 km diameter and results change only minimally (see Table 2 in the Appendix).

Table 1: Effect of manipulative information on electoral outcomes

	Dependent variable (%):					
	Support for Schwarzenberg	Support for Zeman	Voter turnout	Support for Schwarzenberg	Support for Zeman	Voter turnout
	(1)	(2)	(3)	(4)	(5)	(6)
Voters at risk × Second round (γ)	−0.081*** (0.006)	0.047*** (0.007)	0.038*** (0.005)	−0.058*** (0.017)	0.061*** (0.018)	0.032* (0.017)
Second round (β)	13.467*** (0.079)	20.535*** (0.104)	−3.375*** (0.063)	13.594*** (0.331)	20.648*** (0.337)	−3.414*** (0.262)
Voters at risk				−0.051*** (0.012)	0.010 (0.013)	−0.103*** (0.012)
Spatial auto-correlation in residuals (λ)	0.469*** (0.011)	0.515*** (0.011)	0.359*** (0.013)	0.695*** (0.008)	0.690*** (0.008)	0.573*** (0.010)
Municipality fixed effects Support for candidates in the first round	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.944	0.946	0.931	0.505	0.665	0.297
Observations	12,320	12,320	12,320	12,320	12,320	12,320

Note: The table contains coefficients from model specified in Equations (2) and (3) estimated by two-step maximum likelihood procedure. Standard errors are reported in brackets: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Schwarzenberg declined by 0.6 percentage points ($\gamma = -0.08$), and the support for Zeman increased by 0.4 percentage points ($\gamma = 0.05$). The positive effect on voter turnout ($\gamma = 0.04$) points to the political activation of citizens in municipalities with a higher unproven threat to housing ownership. Estimates from the alternative specification (in Columns 4–6) deliver very similar results.[6]

To investigate the role of nationalist sentiment as a possible mechanism behind our results we estimate Equation (2) for the sub-sample of 745 municipalities with more than 90% of ethnic Germans in 1930, because the nationalist sentiment may be strong in these municipalities. The results presented in Table 3 in the Appendix confirm that our main conclusions regarding the effects on support for both candidates remain valid. The campaign influenced the election outcomes[7] in municipalities with a higher share of voters at risk also in the sub-sample of municipalities occupied predominantly by Germans in 1930.

The estimated effect of the spread of manipulative information is small relative to the victory margin. Using the estimates from our preferred specification we estimate that the campaign accounted for 8% of the difference in votes in the run-off election and helped Zeman to get elected.[8] The expulsion of ethnic Germans from Czechoslovakia in 1945–46 remains a sensitive topic in the public discourse. In this paper, we confirm that the political campaign influenced the electoral outcomes and increased voter turnout in municipalities where voters were threatened by a hypothetical return of expropriated property to expelled Germans and their heirs.

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[6]As a robustness we conduct a placebo test with random treatment assignment (1,000 iterations). We randomly assign shares of voters at risk to municipalities and re-estimate our preferred model. Figure 6 in the Appendix depicts empirical distributions of placebo estimates of coefficient γ. For all three outcomes, single sample t-test fails to confirm that mean is different from zero ($t = 0.499; 0.312; -1.206$).

[7]Using this strategy we can disentangle the effect of nationalism from the effect of political campaign on the candidate preferences but it cannot be applied on the election turnout.

[8]The effect of the campaign is calculated for each municipality and summed together as follows: $\sum_c | \sum_i \gamma_c \times T_i \times V_i |$, where γ_c is the estimated effect on the support for candidate c, V_i is the number of eligible voters in the run-off and T_i is treatment intensity in the municipality i.

References

Barrera, O., Guriev, S., Henry, E. and Zhuravskaya, E. (2020), 'Facts, alternative facts, and fact checking in times of post-truth politics', *Journal of Public Economics* **182**, 104123.

Cantarella, M., Fraccaroli, N. and Volpe, R. (2020), 'Does fake news affect voting behaviour?'.

Corbi, R. and Picchetti, P. (2020), 'The cost of gendered attitudes on a female candidate: Evidence from google trends', *Economics Letters* **196**, 109495.

Guzi, M., Huber, P. and Mikula, Š. (2021), 'The long-term impact of the resettlement of the sudetenland on residential migration', *Journal of Urban Economics* **123**(103385).

A Appendix

Table 2: Effect of manipulative information on electoral outcomes using the alternative specification of contiguity weight matrix

	Dependent variable (%):		
	Support for Schwarzenberg	Support for Zeman	Voter turnout
	(1)	(2)	(3)
Voters at risk × Second round (γ)	−0.107***	0.035***	0.047***
	(0.005)	(0.006)	(0.004)
Second round (β)	13.438***	20.441***	−3.346***
	(0.144)	(0.323)	(0.173)
Spatial auto-correlation in residuals (λ)	0.706***	0.841***	0.779***
	(0.041)	(0.028)	(0.034)
Municipality fixed effects	Yes	Yes	Yes
R^2	0.945	0.946	0.931
Observations	12,320	12,320	12,320

Note: The table contains coefficients from model specified in Equations (2) and (3) estimated by two-step maximum likelihood procedure. Spatial contiguity weight matrix **W** includes nonzero weights for municipalities within 30 km. Standard errors are reported in brackets: ***$p < 0.01$.

Table 3: Effect of manipulative information on electoral outcomes in the sub-sample of 745 municipalities with more than 90 % of ethnic Germans in 1930

	Dependent variable (%):	
	Support for Schwarzenberg	Support for Zeman
	(1)	(2)
Voters at risk × Second round (γ)	−0.055**	0.080***
	(0.022)	(0.022)
Second round (β)	12.178***	18.834***
	(0.663)	(0.575)
Municipality fixed effects	Yes	Yes
R^2	0.852	0.885
Observations	1,490	1,490

Note: The table contains coefficients from model specified in Equation (2) estimated by OLS. Robust standard errors clustered by municipality are reported in brackets: **$p < 0.05$; ***$p < 0.01$.
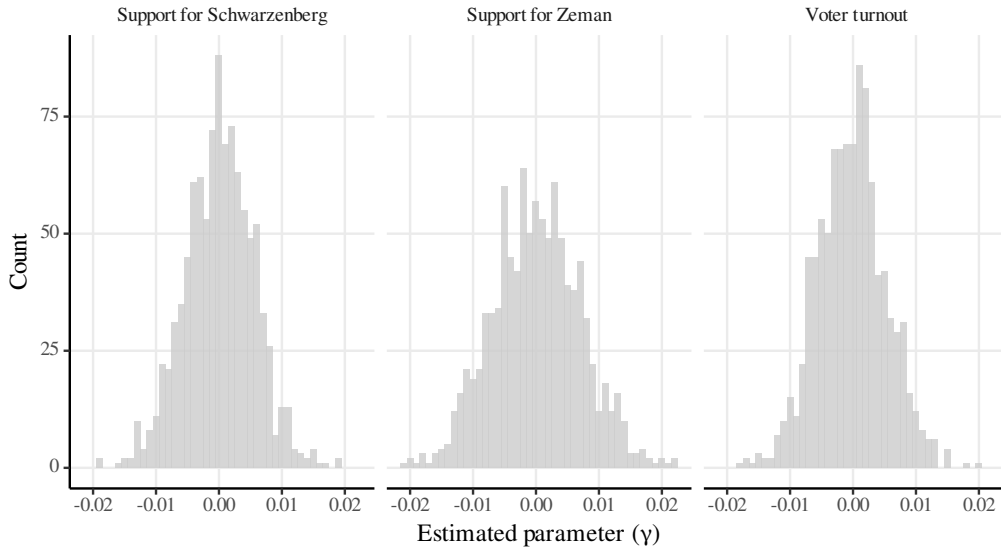

Figure 6: Empirical distributions of placebo estimates of coefficient γ

Note: We estimate our preferred model with random treatment assignment (1,000 iterations). For all three outcomes, single sample t-test fails to confirm that the mean is different from zero ($t = 0.499$; 0.312; -1.206).