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Abstract

We examine whether local inconsistencies in the counting of votes influence voting behavior. We exploit the case of the second ballot of the 2016 presidential election in Austria. The ballot needed to be repeated because postal votes were counted carelessly in individual electoral districts ("scandal districts"). We use a difference-in-differences approach comparing election outcomes from the regular and the repeated round. The results do not show that voter turnout and postal voting declined significantly in scandal districts. Quite the contrary, voter turnout and postal voting increased slightly by about 1 percentage point in scandal districts compared to non-scandal districts. Postal votes in scandal districts also were counted with some greater care in the repeated ballot. We employ micro-level survey data indicating that voters in scandal districts blamed the federal constitutional court for ordering a second election, but did not seem to blame local authorities.

JEL code: D72, D02, Z18, P16

Keywords: Elections, trust, political scandals, administrative malpractice, counting of votes, voter turnout, populism, natural experiment

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1. Introduction

Voters in western democracies usually benefit from established political institutions. Elections are free, secret and balanced (one man, one vote). Standards for the counting of votes once the polls are closed are crystal-clear so as to avoid any concerns regarding manipulation. Many supervisory, control and transparency rules ensure that votes are counted publicly and correctly. In contrast to dictatorships, voters in democracies usually trust the government to count votes completely and accurately (for an exception see Fund and von Spakovsky 2012). However, myriad famous examples exist of inconsistencies in the counting of votes (which does not necessarily imply manipulation) were an issue. A prominent example is the 2000 US presidential election recount in Florida where a margin of 537 votes saved the second term of President George W. Bush.

Inconsistencies in the counting of votes may have dramatic consequences. In developing countries, electoral fraud and irregularities in the counting of votes are hot topics and often trigger large-scale civil unrest. In the former socialist part of Germany, citizens document inconsistencies and outright fraud in the counting of votes in the (undemocratic) local election in May 1989, which provoked a rapidly growing protest movement culminating in the fall of the Berlin Wall and the German reunification in 1989/1990 (see, e.g., Fricke 1999). However, the expected electoral consequences of inconsistent vote counting in well-established democracies are more ambiguous from a theoretical point of view. On the one hand, inconsistencies might reduce voter turnout rates if voters no longer trust election authorities (on the relationship of trust and voter turnout, see Citrin 1974; Knack 1992; Hetherington 1999; Cox 2003; Carrerras and İrepoğlu 2013). On the other hand, revelations of ballot-counting inconsistencies may increase voter turnout if voters feel even more comfortable with authorities that are now under tight supervision by the media and upper tiers of government wanting to avoid new electoral irregularities. For example, McCubbins and Schwartz (1984) and Spiller

(2013) explain that third-party supervision may well be more effective than permanent oversight by one agent only. Therefore, voters might be even more inclined to cast their votes in districts with strictly supervised election authorities. Identifying the net effects of eroded trust and new confidence because of supervision therefore is an empirical question.

We estimate the causal effect of inconsistencies in the counting of votes on local voting behavior in established democracies. Regional differences in irregularities regarding the second ballot of the 2016 Austrian presidential election supply an excellent natural experiment for investigating whether inconsistencies in the counting of votes influence voting behavior in established Western democracies. The presidential election needed to be repeated because irregularities surfaced in the counting of postal votes in *individual* electoral districts. Even if administrative malpractice arguably were minor, they resulted in a court-ordered second election. The sloppy counting of votes broadly was considered to be scandalous; we therefore label districts with inconsistencies as "scandal districts". In the end, the constitutional court did not confirm widespread ballot manipulation, but such manipulation was possible in at least 12 % of all Austrian electoral districts. Public discourse portrayed citizens' perceptions of the irregularities to be rather severe: around one-third of the voters were convinced of electoral manipulation.[1] The Austrian media and even the Austrian Chancellor, Christian Kern, described Austria as seeming like a "banana republic".[2]

We employ macro-level and micro-level survey data, and estimate difference-in-differences models to investigate whether voting behavior changed in the Austrian presidential election's second ballot in scandal districts where inconsistencies in the counting of postal votes were alleged. We distinguish between scandal districts that were subject to the summons of the

[1] Section 6.3 includes survey information on voters' attitudes toward the repeated elections and the scandal.
[2] See, e.g., the comment of Anneliese Rohrer in the newspaper *Die Presse*, 18 June 2016, or the interview with Chancellor Christian Kern in OE24.at, 11 June 2016, http://www.oe24.at/oesterreich/politik/Christian-Kern-Wir-haben-eine-Chance-vergeben/239273674.

constitutional court (20 districts; see Figure 1), and scandal districts where inconsistencies in the counting of votes ultimately were confirmed by the court (14 districts). In the 2016 Austrian presidential election, balloting took place in a total of 117 districts. Clearly, citizens across the entire country may have been disenchanted by the irregularities in vote counting. We estimate however, local average treatment effects because no counterfactual exists to Austria as a whole. We therefore ask whether citizens in districts with inconsistencies responded differently to inconsistent postal vote counting than citizens in non-scandal districts.

The results show that postal voting declined nationwide in the election's second round. However, the results do not suggest that voter turnout and postal voting fell in scandal districts. We find quite the contrary: voter turnout and postal voting increased slightly by around 1 percentage point in scandal districts than in non-scandal districts. Our results do not show that the rightwing populist vote share and the share of invalid votes were influenced by inconsistencies in the counting of votes in individual districts. We use unique micro-level survey data to examine the underlying reasons for our findings. The results show that voters in scandal districts blamed the federal constitutional court for ordering the presidential election to be repeated, but did not blame local election administrators.

Examining the effects of inconsistencies in the counting of votes on voting behavior is new.[3] The literature that is most closely related to our analysis deals with the electoral consequences of political scandals using a similar research design. Some studies show that incumbent vote shares decline when politicians were involved in political scandals because, for example, they were corrupt, favored relatives, or abused taxpayers' money (Ferraz and Finan 2008; Costas-Pérez et al. 2012; Hirano and Snyder 2012; Pattie and Johnston 2012; Vivyan et al. 2012; Eggers 2014; Fernández-Vázquez et al. 2016; Rudolph and Däubler 2016; Sulitzeanu-Kenan et al.

[3] Cantú (2014) elaborates on the extent rather than on the consequences of electoral manipulation in the counting of votes in Mexico.

2016; Larcinese and Sircar 2017). By contrast, other studies do not suggest that voters punish incumbents (Chang et al. 2010; Kauder and Potrafke 2015). The empirical evidence on the effects of political scandals on voter turnout likewise is rather mixed (Chong et al. 2015; Kauder and Potrafke 2015; Sulitzeanu-Kenan et al. 2016). Previous studies investigate how voting behavior changes from the election before the scandal to the next election. Comparing the election before the scandal to the next election often is difficult because campaigning, parties, candidates and other circumstances may too have changed. An advantage of our study is examining a nationwide repeated election involving the *same* candidates, the same decision to be made, and virtually no change in the electorate. We conclude that voters' trust in electoral institutions and their resulting participation levels may well depend on individual local election administrations: when tightly supervised administrators handle scandals under the eyes of the public, voters keep on participating in elections.

2. Trust, scandals and electoral outcomes

Voters' trust in the government and in international organizations is positively associated with voter turnout (Citrin 1974; Knack 1992; Hetherington 1999; Cox 2003; Carrerras and İrepoğlu 2013). If governments lack voters' trust, for example, because politicians have been involved in political scandals (e.g., Solé-Ollé and Sorribas-Navarro 2017), voters are likely to change their voting behaviors. Political scandals therefore are expected to have electoral consequences, but the direction of change is rather unclear.

Firstly, voter turnout might be affected in places that were implicated in a scandal. On the one hand, disappointed voters may abstain from voting. "If voters fear that polls are corrupt, they have less incentive to bother casting a vote; participating in a process in which they do not have confidence will be less attractive, and they may well perceive the outcome of the election to be a foregone conclusion" (Birch 2010, p. 1603). Based on data from Mexico, for example, Chong

et al. (2015) conclude that voter turnout declined in places where politicians have been implicated in political scandals. Scandals, however, also may work in the opposite direction when voters wish to express that they are not intimidated by the scandal or want to vote for a candidate who had not been implicated (for example, punish the corrupt incumbent). If that is true, voter turnout is likely to increase. In our case to be investigated, voter turnout in scandal districts may even increase because voters expected that votes would be counted with greater care in tightly supervised places where irregularities initially were observed. McCubbins and Schwartz (1984) and Spiller (2013) explain that third-party supervision in the form of pulling a "fire alarm" may well be more effective than permanent "police patrol" oversight by the agent. In the repeated ballot of the election under investigation, media and higher levels of government began tightly supervising local authorities, which in turn may have induced new confidence on the part of voters. Politicians themselves were not implicated in the election scandal. Consequently, Austrian voters' trust was unlikely to have been eroded to the same extent as in other political scandals involving corrupt politicians. Empirical studies using data from Germany and Israel do not show that voter turnout changes in places where politicians have been involved in political scandals (Kauder and Potrafke 2015; Sulitzeanu-Kenan et al. 2016), other studies show that voter turnout even increases (Karahan et al. 2006, Escaleras et al. 2012; Lacombe et al. 2017). No study dealing with scandals in the counting of votes has yet been undertaken.

Secondly, incumbent vote shares may change in places that have been implicated in a political scandal. For example, voters may well punish individual politicians found to be corrupt or who are implicated in a political scandal. Many empirical studies investigate whether voters punish politicians determined to have used their offices for personal gain. A well-studied example is the 2009 United Kingdom expenses scandal (Pattie and Johnston 2012). The vote shares of MPs who were implicated in the scandal was reduced by about 2.6 percentage points the 2010

general election than the vote shares of MPs who were not involved, compared to the previous 2005 election (Eggers 2014). A voter who believed that his/her MP over-claimed expenses was about 5 percentage points less likely to vote for him/her in the 2010 election than a voter who did not believe that his/her MP over-claimed expenses (Vivyan et al. 2012). Scandal-related news coverage reduced the probability that an individual MP kept his/her parliamentary seat: a one standard deviation increase in news coverage gave rise to a 0.9% decline in votes in 2010 compared to 2005 (Larcinese and Sircar 2017). Political scandals in Brazil, Israel, Spain, the United States and Mexico also reduced incumbent vote shares (Ferraz and Finan 2008; Sulitzeanu-Kenan et al. 2016; Costas-Pérez et al. 2012; Fernández-Vázquez et al. 2016; Hirano and Snyder 2012; Chong et al. 2015). In Spain, media coverage of scandals was important to whether voters punished politicians for being implicated.[4] Empirical evidence on scandals in Germany and Italy is mixed (Kauder and Potrafke 2015; Rudolph and Däubler 2016; Chang et al. 2010). In contrast to well-studied political scandals, the effects of inconsistencies in the counting of votes on party vote shares have not been studied. Voters may reward the party detecting and making accusations of electoral irregularities (in our case: the rightwing populist party; see section 3). Scandals also may strengthen disenchantment with political and administrative elites, thereby provoking populism. However, in the case of a repeated election, it also is possible that voters hold the rightwing populist party accountable for additional campaigning and election costs, which might be perceived as unnecessary. The net effect remains an empirical question.

A third hypothesis to be investigated is that the number of invalid votes change in places where political scandals have surfaced. A potential reason is disenchantment with politicians and lost in trust in the political system. Disappointed voters purposely may "spoil" their ballots. On the other hand, for reasons similar to those discussed above, voters be angry at individual

[4] See Puglisi and Snyder (2011) on newspaper coverage of political scandals.

(incumbent) politicians and become more likely to vote for opponents and therefore would not waste their ballots by making them invalid. In the case of detected inconsistencies in the counting of votes, increases in the number of invalid votes also may reflect more careful vote counting by election authorities, who are more inclined to classify doubtful votes as invalid in order to signal competence. Empirical studies have not yet focused on examining the effects of political scandals or inconsistencies in the counting of votes on the number of invalid votes.

Finally, scandals may influence the manner of casting votes. Individual electoral institutions that have been manipulated (such as postal voting in our study) are less likely to be used in places where counting rules regarding that institution were ignored or broken. When voters do not trust the government to implement electoral institutions such as postal voting in a suitable way, they may well take advantage of other methods of casting their ballots. For example, voters may cast their ballots more frequently at polling stations rather than voting by mail. However, if the election procedure is supervised closely, confidence in postal voting may also increase in ways similar to voter turnout rates.

3. Institutional background

We investigate the second ballot of the 2016 presidential election in Austria. Austrian presidents have been elected in direct elections since 1951. The duration of their term in office is six years. The president is the federal head of the state of Austria and theoretically enjoys a great deal of power. In practice, however, the Austrian president administers ceremonial events such as receptions and addresses of welcome to visiting dignitaries. In contrast to the indirect presidential elections in the United States (system of electors), for example, the Austrian president is elected proportionally and directly. A winning candidate must garner more than 50% of the valid ballots cast nationwide. Two election rounds are held if no candidate receives more than 50% of the popular vote total on the first ballot: a second (run-off) ballot is conducted

between the two candidates receiving the most votes in the first round. Votes cast at the "regular" ballot box are collected at the local level (*Gemeinde*); postal votes, by contrast, are counted at the (electoral) district level (*Bezirk*), which is the next higher local administrative level. No information on postal voting at the local level is reported. Voters do not need to register. Files for postal voting results, which apply to presidential elections since 2010 can be requested from the local election authority. Postal voting procedures were the same for the regular and the repeated second round of the Austrian presidential election in 2016.

The 2016 Austrian presidential election was unique in many ways. Austrian presidents since World War II were either members of the Social Democratic Party (SPÖ) or the Conservative Party (ÖVP), and one president, Rudolf Kirchschläger, was nominated by both large parties in 1980. On the first ballot of the 2016 presidential election on 24 April, however, neither a candidate of the SPÖ nor the ÖVP made it to the second ballot, but a candidate from the rightwing populist Freedom Party (FPÖ), Norbert Hofer, and a candidate supported by the Green Party (Greens), Alexander van der Bellen, did. Alexander Van der Bellen formally ran as an independent, but he was the former chairman of the Green Party and the Greens backed his candidacy financially and in terms of organization. Thus, he was widely considered to be the Green candidate. As in many other western democracies in recent years, the Austrian party system has changed dramatically. On the second ballot on 22 May 2016, van der Bellen won the election against the rightwing populist candidate Norbert Hofer, with a small lead of 30,863 votes (van der Bellen received 50.35% of the votes; Hofer received 49.65%). Postal votes turned the balance in favor of van der Bellen. Voter turnout was 72.7%.

The defeated FPÖ was concerned about inconsistencies in the counting of votes, especially in dealing with postal votes. As a result, the chairman of the rightwing populist FPÖ, Hans-Christian Strache, went to the constitutional court to contest the results of the second ballot. The constitutional court studied the constitutional complaint for about a month. On 1 July 2016,

the constitutional court acceded to the constitutional complaint because of inconsistencies in the counting of votes. For example, postal votes must be counted by 9 a.m. on the Monday after Election Day (which takes place on a Sunday). In Bregenz, campaign workers started to count postal votes at 8 a.m. In Innsbruck-Land, campaign workers started to count the postal votes at 9 a.m., but already had opened the envelopes containing postal votes on Sunday.[5] The constitutional court made clear that it had no concern about electoral manipulation, but the rules had been broken. The inconsistencies in the counting of votes affected 77,926 ballots, a vote total that may well have changed the election's outcome because Alexander van der Bellen won by 30,863 votes against Norbert Hofer. The constitutional court called for the second ballot to be repeated.

The re-holding of the second ballot was scheduled to take place on 2 October 2016. Inconsistencies in the counting of postal votes had been identified (i.e., some of the envelopes that were sent out to the citizens who wanted to use postal voting could not be sealed). On 12 September 2016, the government therefore decided to postpone the reconducting of the second-round ballot, which took place on 4 December 2016 and Alexander van der Bellen won with 53% of the two-candidate vote total. Voter turnout was 74.1%. The register of eligible voters was updated to account for mortality, naturalization and population exceeding the voting age of 16 between February 2016 and September 2016. The total number of eligible voters, however, increased only by 0.27% (from 6,382,507 to 6,399,572). We do not believe that this uptick in the total number of eligible voters influences our inferences. In any event, we will also control for changes in district-level electorates.

[5] See *Frankfurter Allgemeine Zeitung*, 7 February 2016, "Wenigstens der österreichische Wein taugt noch was".

4. Empirical analysis

4.1 Identification strategy

We use a difference-in-difference approach to estimate the causal effect of local inconsistencies in the counting of votes on voting behavior (postal voting, voter turnout, invalid voting, and candidate vote shares). Our key identifying assumption is that scandal districts (where inconsistencies in the counting of votes materialized) and non-scandal districts follow a common trend, which would have continued in the absence of local vote-counting irregularities. We discuss why we believe that the common trend assumption holds.

Firstly, Figure 2 suggests parallel pre-scandal trends in postal voting, voter turnout, FPÖ vote shares and invalid vote shares in both scandal and non-scandal districts. Vertical lines identify the scandal's timing. The upper panel compares the 20 districts that were subject to constitutional court summonses to the remaining districts; the lower panel compares the 14 districts with confirmed inconsistencies in the counting of votes to all other districts.[6] Postal voting was introduced in 2007; relevant data therefore are available since the national election of 2008. In both scandal and non-scandal districts, the share of voters using postal voting increased to around 15% in the first round of the 2016 presidential election. Voter turnout in nationwide elections fell from around 80% in the early 1990s to around 70% in 2016.[7] The vote share of the rightwing populist FPÖ usually was between 10% and 30% and has not differed significantly in scandal and non-scandal districts over the past ten years. The same holds true for invalid votes. The share of invalid votes was substantially larger in presidential election years (1998, 2004, 2010 and 2016), but did not differ between scandal and non-scandal districts. As a result, both groups of districts seemed to have followed a common trend. Group mean

[6] Inferences do not change when we exclude those districts from the control group that were subject to constitutional court summons, but electoral inconsistencies were not confirmed ($n = 6$).
[7] On voter turnout and electoral institutions in the Austrian states. see, for example, Gaebler et al. (2017) and Potrafke and Roesel (2018).

differences are small and diminish when the 23 electoral districts of Vienna are excluded (see appendix, Figure A1).

Secondly, we examine whether observable pre-scandal characteristics differ across scandal and non-scandal districts. Table 2 indicates no significant differences between non-scandal districts and districts where inconsistencies in the counting of votes were subject to court summonses (column (4)), or where inconsistencies in the counting of votes were confirmed (column (5)). Neither pre-scandal electorates, rainfall nor other socio-demographic variables, e.g., the population shares of female, foreigners and elderly people, differ across district groups. The exceptions are the opening hours of polling stations, unemployment and the share of foreigners that are somewhat larger in non-scandal districts. Wages differ to a small extent across non-scandal and scandal districts. If we exclude the districts of Vienna (lower panel of Table 2), however, the opening hours of polling stations, unemployment, the share of foreigners and wages also do not differ in scandal versus non-scandal districts.

Thirdly, no spatial clustering of scandal districts is evident. Figure 1 shows that many scandal districts are in the Austria's West (Tyrol, Vorarlberg), in the South (Carinthia, Styria), and in the North (Upper Austria, Lower Austria). Inconsistencies in the counting of votes were widespread; the FPÖ accused 97 out of 117 electoral districts of possible manipulations.

Fourthly, education and skills of the civil servants in the districts may have influenced the selection into treatment. The less educated the civil servants are, the more likely inconsistencies in the counting of votes may be. However, differences in education between scandal and non-scandal district administrations are unlikely. The education of civil servants is standardized in Austria. We also do not find any evidence that possibly culpable district officials resigned in the course of the scandals. Quite on the contrary, the district authority of Bregenz (state of Vorarlberg) complained that their civil servants were somehow subject to "witch hunting"

which "they do not deserve".[8] Administrative abilities thus do not predict selection into treatment.

Fifthly, we examine whether the detection of inconsistencies in the counting of votes may have been manipulated and, consequently, given rise to a selection into treatment. We do not believe such selection into treatment existed for two reasons. Members of the three main parties (the social-democratic SPÖ, the conservative ÖVP and the rightwing populist FPÖ) were allowed to join the committees counting postal votes in all districts. Thus, FPÖ district branches had the same chance in all districts to detect inconsistencies in the counting of votes. Moreover, the broad media coverage encouraged many advocates and party members of the FPÖ to report inconsistencies in the counting of votes on Facebook. FPÖ officials collected, analyzed and joined in the preparation of all reports. The complaint of the FPÖ explicitly referred to Facebook sources. Therefore, even a small number of voters per district (e.g., in districts in which citizens hardly vote for the FPÖ) were sufficient to submit the allegations for investigation by the constitutional court.

Altogether, we find evidence of common trends and a selection mechanism into treatment that is orthogonal to observable, but also to unobservable characteristics. The nationwide repetition of an election is a unique event in Austrian history; in 1970 and 1995, national elections had to be repeated only in individual municipalities where minor inconsistencies in the counting of votes occurred.

4.2 Data

We use data at the level of the 117 electoral districts of Austria for the original and the repeated second ballot of the national presidential election in May and December 2016.[9] Electoral

[8] See *Der Standard*, 14 July 2016, http://derstandard.at/2000041085212/Disziplinarstellen-ermitteln-gegen-Beamte.
[9] Vienna accounts for 23 of Austria's 117 electoral districts.

districts are administrative entities for structuring the counting of votes and of postal votes, in particular. Election data and data on the opening hours of polling stations are obtained from the Austrian Federal Ministry of the Interior. We compile data on rainfall from the weather website wetteronline.de. All other variables are collected from the publications of Statistics Austria. We code scandal districts accordingly to the official press releases of the constitutional court.[10]

4.3 Econometric model

Our difference-in-difference Ordinary Least Squares (OLS) model takes the following form:

$$Y_{ijt} = \alpha + \beta_1 Incons_i + \beta_2 Repeat_t + \beta_3 (Incons_i \times Repeat_t) + X'_{it}\gamma + \varepsilon_{it}$$

$$\text{with } i = 1, \dots, 117;\ j = 1, \dots, 4 \text{ and } t = 1,2,$$

where Y_{ijt} denotes the $j = 1, \dots, 4$ four dependent variables in district i for election t ($t = 1$: regular second ballot of the 2016 presidential election, $t = 2$: repeated second ballot of the 2016 presidential election), namely the share of all voters in district i using postal voting, voter turnout, which is the overall share of eligible voters, invalid votes measured as the share of invalid votes, and the FPÖ vote share, which is the vote share of the rightwing populist presidential candidate. $Incons_i$ is a dummy variable that equals one for districts with inconsistencies in the counting of votes, and 0 otherwise.[11] We use two measures of inconsistencies in the counting of votes: summons to the constitutional court and confirmations of inconsistencies in the counting of votes by that court. $Repeat_t$ is set equal to one for the repeated second ballot in December 2016 and equal to 0 for the first second ballot in May 2016. The interaction term $(Incons_i \times Repeat_t)$ is our variable of interest (treatment). Vector X is a

[10] See the 1 July 2016 press release of the Austrian constitutional court: "In the districts of Innsbruck-Land, Südoststeiermark, Stadt Villach, Villach-Land, Schwaz, Wien-Umgebung, Hermagor, Wolfsberg, Freistadt, Bregenz, Kufstein, Graz-Umgebung, Leibnitz and Reutte the rules governing the implementation of the postal voting system were not complied with.... In the districts of Kitzbühel, Landeck, Hollabrunn, Liezen, Gänserndorf and Völkermarkt the system of postal voting was implemented in accordance with the rules."

[11] We have no information on treatment intensity (e.g., number of affected votes).

set of control variables, including the district electorate (log), the amount of rain in the district's capital city on Election Day, the district average of polling stations' opening hours, which differ substantially across Austria, and the unemployment rate. We estimate the difference-in-differences model with standard errors clustered at the district level.[12]

5. Results

5.1 Baseline

The baseline results show that postal voting and voter turnout changed across scandal and non-scandal districts in the repeated second presidential ballot. The upper panel of Table 3 shows the difference-in-differences results for a specification excluding control variables. Columns (1) to (4) refer to districts that were summoned to the constitutional court, columns (5) to (8) refer to confirmed inconsistencies in the counting of votes by the constitutional court. We observe significant differences across scandal and non-scandal districts in terms of postal voting, voter turnout and FPÖ vote shares ($Inconsistencies$). We also find that all outcome variables changed from the initial to the repeated ballot. For example, voter turnout increased by about 1.4 percentage points on average ($Repeat$), and FPÖ vote shares fell by about 3.3 percentage points. The interaction between $Inconsistencies$ and $Repeat$ (treatment effect), is statistically significant at the 1% and 5% levels when we use the share of postal voters and voter turnout as the dependent variable, but does not turn out to be statistically significant when we use the FPÖ's vote share and the invalid vote share as the dependent variable (the exception is column 3 in which the FPÖ vote share is statistically significant at the 10% level).

[12] In an earlier working paper version, we use Huber-White sandwich standard errors robust to heteroscedasticity (Huber 1967; White 1980). The treatment effects do not turn out to be significant when we use robust standard errors and do not include district fixed effects. We return to this issue in section 5.3.

We enter several control variables (lower panel of Table 3). Voter turnout and invalid voting declines in the size of the electorate and in unemployment rates. Rainfall is associated with a larger FPÖ vote share, but rain was fairly rare on the two Election Days studied. Longer opening hours of polling stations were associated with reductions in rightwing populist and invalid voting, as well as with increases in voter turnout and, somewhat counterintuitively, upturns in the share of postal votes. The interaction effect of $Inconsistencies$ and $Repeat$ (treatment effect), is statistically significant at the 1% level when we use the share of postal voters and voter turnout as the dependent variables (columns 1, 2, 5 and 6). The numerical meaning of the treatment effects is that the share of postal votes and voter turnout increased by around 1.1 and 1.4 to 1.8 percentage points (around 0.2 and 0.3 standard deviations) in scandal districts versus non-scandal districts. The treatment effects lack statistical significance when we use FPÖ vote shares and invalid vote shares as the dependent variables. Including or excluding individual control variables does not change the inferences regarding the scandal district effects.

5.2 Postal votes and ballot box votes

We distinguish between different ways of casting ballots: postal voting and "regular" voting at the ballot box. The center and lower panels of Table 4 show that different effects for postal votes and ballot box votes. The treatment effects are statistically significant at the 1% level when we use voter turnout and invalid votes as the dependent variables, but lack statistical significance when we use ballot box voting as the dependent variable (the exception is the treatment effect in column 6 in the lower panel, which is weakly statistically significant at the 10% level). We conclude that changes in overall voting behavior are a result of changes in postal voting. Postal voting in scandal districts decline less than in non-scandal districts, resulting in a one-to-one increase in voter turnout.

In scandal districts, the share of invalid postal votes increased by about 0.09 percentage points compared to non-scandal districts. It is, however, unclear why postal voters in scandal districts should be more inclined towards invalid voting than in non-scandal districts, and the effect is numerically small. We believe that that the effect is more likely to be a result of behavioral changes in district administrations. District administrations tainted by scandals may have paid even closer attention to correct ballots in the repeated election to avoid future accusations of improper vote counting. Thus, scandal district administrations determined more questionable votes to be invalid than non-scandal district administrations did. If that is true, more invalid votes may result from the more careful counting of votes, rather than from a change in voters' behavior.

5.3 Robustness tests

We test whether the results are robust in several ways. We exclude the 23 electoral districts of Vienna. The Austrian capital differs from the more rural parts of Austria. For example, postal voting is more common in Vienna than in the rest of the country. Figure A1 in the appendix indicates that the assumption of common trends in scandal and non-scandal districts is even more likely to be fulfilled when we exclude Vienna. The upper panel in Table 5 shows the results. Again, the treatment effects are statistically significant at the 1% and 5% levels; the estimated effects on postal voting (voter turnout) are, however, somewhat smaller (larger) than in the baseline model.

We include the control variables shown in Table 2, which, however, we observe only in cross-section (Table 5). Observable characteristics that may predict voting behavior are the population shares of women, foreigners and inhabitants over the age of 75 years at the beginning of 2016. We also include the population share of citizens with low levels of education, employees, the self-employed and the population shares associated with agriculture and

industry (services is the reference category). The treatment effect remains statistically significant, albeit the R-squared increases to at least 0.7 in some specifications when the control variables are entered.

We should not expect any significant effect for pseudo treatments. First, we reassigned the treatment status by the names of districts (Table 5). The first 14 (20) districts in alphabetical order were "pseudo-treated" to be scandal districts, the other districts being non-scandal districts. As expected, we do not observe any significance. Second, we test whether voting behavior changed from the first ballot (April 2016) to the second (regular) ballot of the 2016 election (May 2016), i.e., in the period *before* inconsistencies became an issue. We should not expect an effect in that pseudo period. Table 5 shows that the FPÖ's vote share increased in summoned scandal districts, which also comes with increases in postal vote shares. Summons, however, might be endogenous to local FPÖ electoral performance. Inconsistencies confirmed by the constitutional court, by contrast, are less likely to be endogenous. Accordingly, we do not find a significant change in scandal districts versus non-scandal districts from the first to the second regular ballot, which is in sharp contrast to the change in voting behavior from the second regular ballot to the second repeated ballot.

We test whether the censored character of our variables may have an effect on the results. We estimate a fractional logit model (lower panel of Table 5). The inferences do not change.[13]

We revise control group and treatment group definitions, e.g., by excluding districts that were subject to summons but inconsistencies in the counting of votes were not confirmed ($n = 6$). Table A1 in the appendix shows that inferences do not change when we revise the definition of treatment and control group; the treatment effects remain statistically significant. Being the sole exception, voter turnout, however, did not change in districts where inconsistencies were

[13] We divide all variables by 100 making sure that the variables assume values between 0 and 1.

suspected but not proved by the constitutional court. FPÖ vote shares, by contrast, fell in those districts, indicating that voters in suspected but "innocent" districts may have punished the FPÖ for erroneously accusing their local administrations of careless postal vote counting. Ballot box voting also declined in favor of postal voting in those districts.

Finally, quite some heterogeneity is observed across the electoral districts that we control for by clustering the standard errors at the district level. The effects of having had inconsistencies in the counting of votes on voter turnout and postal votes lack statistical significance when we do not cluster the standard errors at the district level and use, for example, classical standard errors.[14] When estimating classical standard errors or Huber-White sandwich standard errors robust to heteroscedasticity (Huber 1967; White 1980) and entering district fixed effects (that take into account time-invariant cross-district heterogeneity), the treatment effects on voter turnout and postal votes are statistically significant. In any event, no specification indicates that voter turnout, postal votes, invalid votes or the FPÖ vote share declined significantly in scandal districts.

6. Micro data evidence

6.1 Reexamining the difference-in-differences results

We use micro-level survey data to reexamine whether and why voter turnout and the vote shares of the candidates did (not) change in scandal districts. The survey data have been compiled by the Austrian pollster meinungsraum.at – an online survey that was designed especially for the repeated second ballot. We did not commission the survey – the pollster did so independently in July 2016. We purchased the data from the pollster.

[14] We used the same specification in an earlier version of this paper. See footnote 12.

The data include individuals' actual voting behavior in the regular round of the second ballot and their intended voting behavior in the repeated round of the second ballot. The sample includes Austrian citizens and is representative regarding the participants' age (16+), sex, state and education. The sample includes 600 individuals based on 30.000 registered users of the pollster's services. Our final sample includes 499 individuals for which we have information on residence and which were eligible to vote in both elections. We use the individuals' place of residence to assign them to electoral districts (and to distinguish between scandal and non-scandal districts). This final micro data sample is comparable to Austrian national-level data. In Table A2 of the appendix, we compare the micro-data means of the individual variables such as the scandal dummy variables and many socio-demographic variables to national-level data. In the descriptive data and throughout all regression analyses we use the weighting scheme provided by the pollster meinungsraum.at.

We reestimate the difference-in-differences models for voter turnout and candidate vote shares described in section 5 based on the micro-level survey data. We estimate a probit model and ask whether changes in voting intentions from the regular round to the repeated round of the second ballot differ across scandal and non-scandal districts. No micro data are available for postal and invalid votes. Table 6 shows the results. The upper panel of Table 6 reports the difference-in-differences results for a specification excluding control variables. Columns (1) to (4) refer to districts that were summoned to the constitutional court; columns (5) to (8) refer to confirmed inconsistencies in the counting of votes by the constitutional court. The treatment effects (*Repeat* × *Inconsistencies*) are positive but do not turn out to be statistically significant. The treatment effects on voter turnout suggest that the probability of casting a vote increased in scandal districts; the treatment effects, however, slightly fail to reach statistical significance at the 10% level (t-statistics of about 1.5 to 1.6). Excluding districts that were summoned to constitutional court, but inconsistencies in the counting of votes were not confirmed does not

change the inferences. In any event, the microdata results support the conclusion that inconsistencies in the counting of votes did *at least* not affect voting behavior, tending to produce marginal increases in voter turnout. Insignificant treatment effects when using the FPÖ vote shares as the dependent variable corroborate our macro-level results.

6.2 Changes in individual voting decisions

We also exploit individual voting decisions in more detail by estimating probit models (Table 7; the full model including the coefficient estimates for all control variables is shown in Table A3). Again, we are interested in why voting decisions may have changed from the regular runoff to the repeated ballot. Therefore, the dependent variable is a dummy variable that takes on the value 1 if a voter changed her voting decision from the regular to the repeated second round of the election, and 0 otherwise. In columns (1) and (3), the dependent variable takes on the value 1 for any changes in voting decisions. In columns (2) and (4), the dependent variable takes on the value 1 for citizens who voted for the FPÖ candidate in the regular ballot and changed either to the Green candidate, to non-voting or to invalid voting in the repeated ballot. The main explanatory variable is a dummy variable that equals 1 when an individual resided in a district with inconsistencies in the counting of votes, and 0 otherwise. We distinguish between summons to the constitutional court and confirmations of inconsistencies in the counting of votes by that court. The results do not suggest that voters in scandal districts changed their voting decisions from the regular to the repeated ballot in differently than voters in non-scandal districts.

6.3 Voters' attitudes towards the repeated elections and the scandal

The micro-level survey data also include questions on the voters' attitudes towards the repeated election and the scandal. By using descriptive statistics we examine whether the attitudes differ in scandal and non-scandal districts. The results in Table 8 do not suggest that voters in scandal

and non-scandal districts adopted different attitudes towards whether the second ballot should have been repeated and whether manipulations or inconsistencies had occurred in the counting of votes in the second ballot (about 30 % of the respondents believed that no manipulations had taken place, but some 65 % of the respondents believed that the counting of votes had been inconsistent).

Differences exist, however, in how the voters in scandal and non-scandal districts assessed the ruling of the constitutional court and how the scandal would influence democracy in Austria. Only 15% of the voters in non-scandal districts disagree strongly that the constitutional court was correct in deciding to repeat the second ballot. In scandal districts, by contrast, 28% (26%) of the voters disagreed strongly that the constitutional court was correct in deciding to repeat the second ballot. The difference between the voters' attitudes in scandal and non-scandal districts is statistically significant at the 1% level. Voters in scandal districts thus blamed the federal constitutional court for ordering the repeated second ballot. In a similar vein, voters in scandal districts (15%) more often believed that repeating the second ballot would have a strongly negative effect on democracy in Austria than voters in non-scandal districts (8%).

7. Discussion

Why is it that the inconsistencies in the counting of votes did not reduce *local* voter turnout and postal voting, indicating that trust in electoral institutions had not been eroded?[15] We propose five explanations.

Firstly, voters may consider inconsistencies in the counting of votes as a scandal, but not as a determinant of who would win the election. Neuwirth and Schachenmayer (2016) estimate the probability that inconsistencies in the counting of votes changed the final result of the second

[15] It is worth noting that we cannot address a *global* decline in trust.

ballot to be 0.0000000132%. That finding notwithstanding, related studies examining the electoral consequences of political corruption also show that voters may be tolerant of some forms of inconsistencies in the counting of votes. Citizens may well support corrupt politicians (being aware of the corruption) because they believe that other dimensions of the politicians' performance, such as providing public goods are more important (the evidence, however, is mixed; see, e.g., Winters and Weitz-Shapiro 2013). Evidence shows that citizens discriminate among the motives for corruption: citizens are more likely to punish corrupt politicians who aim to enrich themselves than corrupt politicians who aim to buy votes (Karahan et al. 2006; Weschle 2016). Our microdata evidence supports that view. Voters in scandal districts disagreed strongly with the decision of the constitutional court, and suspected negative consequences for Austrian democracy. They, however, did not differ in their knowledge and perceptions of the postal voting scandal from voters in non-scandal districts. Voters in scandal districts thus blamed the constitutional court in Vienna for ordering the repeat election, but not their home district's election administrators.

Secondly, voters perceived inconsistencies in the counting of votes as being a general issue across Austria's electoral districts and did not assume their home district to be electorally pivotal. The media often reported inconsistencies in the counting of votes in general and did not name individual districts. Newspapers and FPÖ officials accused the Federal Minister of the Interior of being responsible for the supervision of counting votes and, thus, any inconsistencies in the counting of votes. The minister, in turn, said that all levels of government were somewhat responsible.[16] In the end, voters were not able to identify the precise source of failure.

[16] See, for example, *Die Presse*, „Wahlanfechtung: ‚Vorwürfe zusammengebrochen'", 26 June 2016, http://diepresse.com/home/politik/innenpolitik/5035340/Wahlanfechtung_Vorwuerfe-zusammengebrochen.

Thirdly, trust in political institutions has been shown to be pronounced in closely-knit communities: by using data on municipal mergers in Denmark, the results of Hansen (2013) suggest that political trust declined in the course of merging municipalities. The comparably small size of Austrian districts (the average population is 55,000) may have prevented distrust from materializing.

Fourthly, Austrian voters may have wanted to signal that Austria is certainly not a banana republic and enjoys stable political institutions. In the autumn of 2016, many observers were surprised by Donald Trump winning the US presidential election. Concerns were voiced about political stability in industrialized countries. Quite similar levels of participation in the second ballot of the Austrian presidential election in scandal and non-scandal districts, along with not voting for the rightwing populist candidate Norbert Hofer, sent a signal of Austria's political stability. Conservative voters also did not want to elect a rightwing populist candidate and support by conservative voters for the Green candidate Alexander van der Bellen increased in the repeated ballot versus the regular ballot.

Fifth, blaming the federal constitutional court for ordering for the repeated second ballot may well relate to local identity that is likely to explain why inconsistencies in the counting of votes led more voters to turn out when the presidential election was repeated: citizens in treated districts felt that their local authority (in-group) had been attacked by the court (out-group). They therefore reacted strongly to defend citizens representing their in-group. They believed that the inconsistencies in counting votes were minor and could have happened to anyone. The out-group was accusing them wrongly of being sloppy (or worse, to have wrong intentions). Consequently, citizens in districts with inconsistencies were more mobilized in the repeated election than citizens from other districts.[17]

[17] We are grateful to an anonymous referee who suggested this explanation.

8. Conclusion

Trust in electoral institutions is important for maintaining stable political institutions. For example, societies that place high levels of trust in politicians and the political system and display generalized trust are far less corrupt than societies with low trust (Seligson 2002; Anderson and Tverdova 2003; Chang and Chu 2006; Morris and Klesner 2010).[18] Local inconsistencies in the counting of votes on the first ballot of the 2016 Austrian presidential elections did not seem to have eroded political trust in districts touched by the scandal. We examined whether the inconsistencies in the counting of votes influenced voter turnout, more invalid votes and postal votes, and more votes for the rightwing populist FPÖ candidate.

The literature most closely related to our study deals with the electoral consequences of political scandals that often have involved public corruption (Karahan et al. 2006; Ferraz and Finan 2008; Chang et al. 2010; Costas-Pérez et al. 2012; Escaleras et al. 2012; Hirano and Snyder 2012; Pattie and Johnston 2012; Vivyan et al. 2012; Eggers 2014; Chong et al. 2015; Kauder and Potrafke 2015; Fernández-Vázquez et al. 2016; Rudolph and Däubler 2016; Sulitzeanu-Kenan et al. 2016; Lacombe et al. 2017; Larcinese and Sircar 2017). In the 2016 Austrian presidential election we examine, politicians were not implicated in the postal voting scandal; rather, local election administrators were accused of incompetence or malpractice. We investigate how inconsistencies in the counting of votes influence different aspects of voting behavior, which is the paper's contribution. The results suggest that voter turnout and postal voting increased in scandal districts by around one percentage point. We propose five explanations for why the inconsistencies in the counting of votes did not erode voter trust, but rather seem to encourage citizens to participate in the second ballot more frequently in places

[18] Trust also has been shown to be correlated with, for example, income equality and education (Knack and Keefer 1997). On social trust – as measured by the degree to which people believe that strangers can be trusted – and governance, see Bjørnskov (2010): social trust was positively associated with economic-judicial governance, but has not been shown to be associated with electoral institutions.

where the irregularities occurred. The low probability of manipulation and signaling (in the course of the 2016 US presidential election) that Austria is not a banana republic and enjoys stable political institutions may have prevented distrust from coming into play. Local identity likewise may explain the scandal's effect on voter turnout: citizens in districts where inconsistencies occurred (in-group) believed that the inconsistencies in counting votes were minor and could have happened to anyone. From a local perspective, the federal constitutional court (out-group) was wrongly accusing district administrations of being sloppy and, in turn, citizens in districts with inconsistencies participated more actively in the repeated election of the second ballot than citizens in districts where no inconsistencies occurred. Future research should examine in more detail whether issues such as low probability of electoral manipulation, signaling and local identity help to explain why voter turnout and incumbent vote shares do not decline when irregularities in the counting of votes and corruption are observed.

We cannot address, however, whether the *global* level of trust eroded. The share of voters using postal voting declined from 16.7% to 13.3%, but voter turnout increased slightly from 73.1% on the first ballot to 74.7% on the repeated second ballot. Some voters may have lost trust in postal voting (an individual electoral institution), but not in participating in elections and democratic institutions in general. One avenue for future research would be to disentangle the effects of global and local scandals on voter participation.

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Electoral Institutions in Western Democracies – Evidence from a Presidential Election in Austria".

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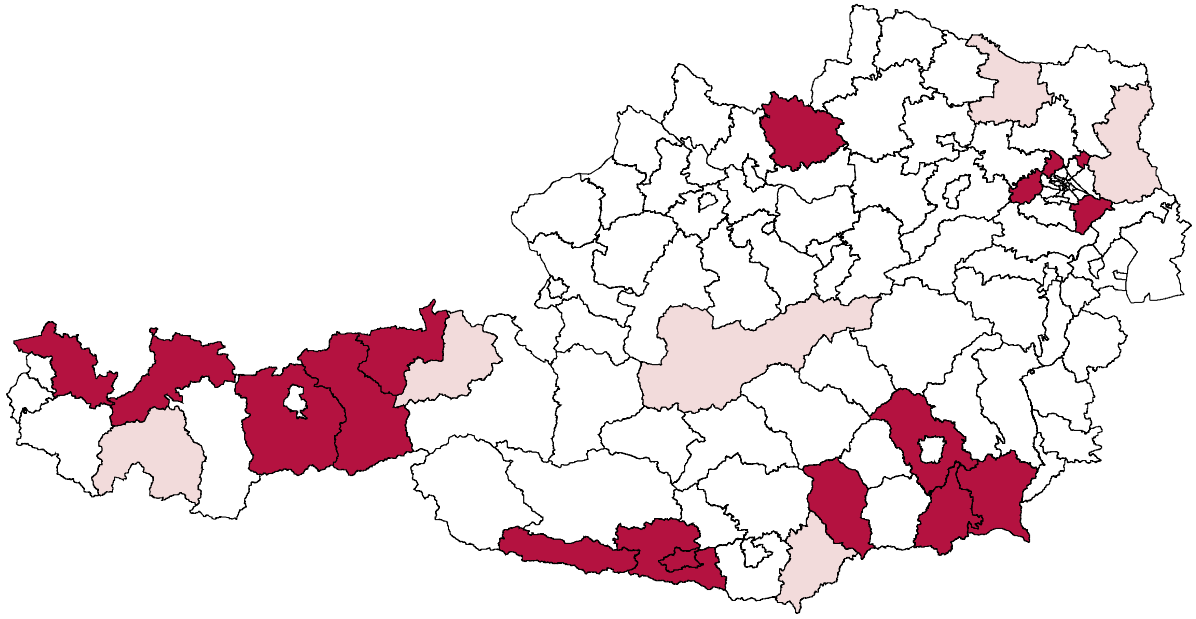
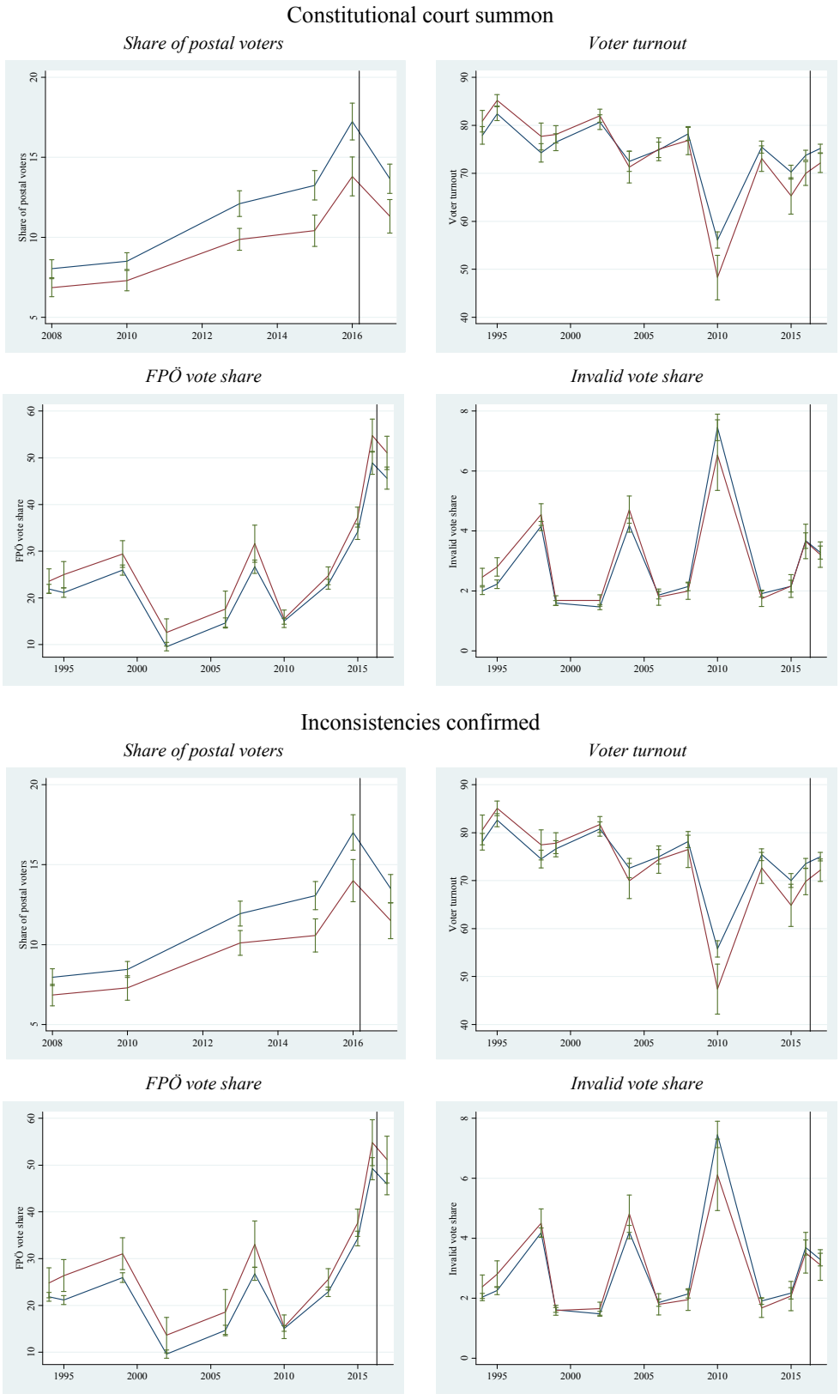
FIGURE 1. SCANDAL DISTRICTS



■ Constitutional court summons ($n = 20$) ■ Inconsistencies confirmed ($n = 14$)
□ No inconsistencies ($n = 97$)

Notes: The figure shows districts which were subject to constitutional court summons (light red), and districts which were subject to constitutional court summons *and* inconsistencies in the counting of votes were confirmed (dark red). White colored are non-scandal districts. Note that the scandal district of Wien-Umgebung (which is located in the North-East surrounding Vienna) has four regions.

FIGURE 2. TRENDS OF OUTCOME VARIABLES



Notes: The figure shows election outcomes in districts which were subject to constitutional court summons (upper panel, $n = 20$), and districts where inconsistencies in the counting of votes were confirmed (lower panel, $n = 14$). Vertical lines represent the timing of the scandal. Total number of districts: 117. 1998, 2004, 2010, 2016 (two rounds): Presidential elections. 1994, 1995, 1999, 2002, 2006, 2008, 2013: Parliamentary elections.

TABLE 1. DESCRIPTIVE STATISTICS

	Obs.	*Mean*	*Std. Dev.*	*Min*	*Max*	*Definition*
	(1)	(2)	(3)	(4)	(5)	(6)
Outcomes before scandal						
Share of postal votes	117	16.66	5.47	9.85	37.77	Postal votes per total votes
Voter turnout	117	73.14	5.30	62.12	82.00	Total votes per electorate
FPÖ vote share	117	49.92	11.84	19.01	69.56	FPÖ votes per valid votes
Invalid vote share	117	3.67	1.27	1.64	6.35	Invalid votes per total votes
Outcomes after scandal						
Share of postal votes	117	13.26	4.36	8.02	32.54	Postal votes per total votes
Voter turnout	117	74.66	4.56	65.20	82.21	Total votes per electorate
FPÖ vote share	117	46.55	11.31	17.63	66.68	FPÖ votes per valid votes
Invalid vote share	117	3.27	1.06	1.41	5.63	Invalid votes per total votes
Scandal dummies						
Constitutional court summon	234	0.17	0.38	0	1	District subject to court cummons
Inconsistencies confirmed	234	0.12	0.33	0	1	District with confirmed inconsistencies
Controls						
Electorate (log)	234	10.73	0.65	7.34	12.20	Electorate (log)
Unemployment rate	234	3.79	1.81	1.09	8.99	Unemployed share of population
Rainfall	234	0.02	0.10	0.00	1.00	Rainfall in mm per cm² on election day
Opening hours of polling stations	234	6.90	2.10	2.63	10.00	Opening hours of polling stations
Cross-section controls						
Population (log)	117	11.03	0.67	7.56	12.54	Total population (log)
Pop. share of female (2016)	117	50.85	0.80	49.26	53.69	Share of female population
Pop. share of foreigners (2016)	117	13.40	8.87	2.21	40.55	Share of non-Austrian population
Pop. share of pop. > 75 (2016)	117	9.25	1.74	5.64	14.02	Share of population > 75 years old
Pop. share of low educated (2013)	117	23.63	3.94	12.67	32.34	Share of low educated population
Pop. share of agriculture (2013)	117	2.11	1.72	0.07	7.67	Population share associated with agriculture
Pop. share of industry (2013)	117	11.96	4.23	2.36	20.08	Population share associated with industry
Pop. share of employees (2013)	117	45.23	2.16	33.96	48.54	Population share of employees
Pop. share of self-employed (2013)	117	6.30	1.74	2.86	14.42	Population share of self-employed
Wage per worker (2014)	117	30,589	3,953	23,633	51,340	Wage in Euro per worker
Wage per worker growth (2005–2014)	117	0.22	0.05	0.08	0.29	Growth of wage per worker

Notes: The table presents the descriptive statistics of the dataset.

TABLE 2. PRE-SCANDAL CHARACTERISTICS

	Full dataset				
	Mean			*Mean difference to Non-scandal*	
	Non-scandal	*Constitutional court summon*	*Inconsistencies confirmed*	*Constitutional court summon*	*Inconsistencies confirmed*
	(1)	(2)	(3)	(4)=(1)–(2)	(5)=(1)–(3)
Controls					
Electorate (log)	10.70	10.90	10.97	-0.20	-0.27
Unemployment rate	3.74	3.23	2.86	0.51	0.88*
Rainfall	0.03	0.05	0.07	-0.02	-0.04
Opening hours of polling stations	7.14	5.92	6.01	1.22**	1.13*
Cross-section controls					
Population (log)	11.00	11.17	11.23	-0.16	-0.23
Pop. share of female (2016)	50.89	50.64	50.62	0.25	0.27
Pop. share of foreigners (2016)	14.06	10.23	10.50	3.84*	3.56
Pop. share of pop. > 75 (2016)	9.22	9.36	9.19	-0.13	0.04
Pop. share of low educated (2013)	23.61	23.70	23.70	-0.09	-0.09
Pop. share of agriculture (2013)	2.00	2.60	2.52	-0.60	-0.52
Pop. share of industry (2013)	11.72	13.16	13.63	-1.45	-1.92
Pop. share of employees (2013)	45.22	45.26	45.61	-0.04	-0.39
Pop. share of self-employed (2013)	6.22	6.73	6.64	-0.51	-0.43
Wage per worker (2014)	30,887.85	29,138.36	29,689.91	1,749.49*	1,197.93
Wage per worker growth (2005–2014)	0.21	0.23	0.23	-0.02*	-0.02
n	97	20	14	117	111
	Vienna excluded (n = 23)				
	Mean			*Mean difference to Non-scandal*	
	Non-scandal	*Constitutional court summon*	*Inconsistencies confirmed*	*Constitutional court summon*	*Inconsistencies confirmed*
	(1)	(2)	(3)	(4)=(1)–(2)	(5)=(1)–(3)
Controls					
Electorate (log)	10.71	10.90	10.97	-0.19	-0.25
Unemployment rate	2.97	3.23	2.86	-0.26	0.11
Rainfall	0.04	0.05	0.07	-0.01	-0.03
Opening hours of polling stations	6.25	5.92	6.01	0.33	0.24
Cross-section controls					
Population (log)	10.97	11.17	11.23	-0.20	-0.27
Pop. share of female (2016)	50.69	50.64	50.62	0.05	0.07
Pop. share of foreigners (2016)	9.73	10.23	10.50	-0.49	-0.76
Pop. share of pop. > 75 (2016)	9.73	9.36	9.19	0.37	0.55
Pop. share of low educated (2013)	24.28	23.70	23.70	0.58	0.58
Pop. share of agriculture (2013)	2.59	2.60	2.52	-0.02	0.06
Pop. share of industry (2013)	13.54	13.16	13.63	0.38	-0.09
Pop. share of employees (2013)	45.35	45.26	45.61	0.09	-0.26
Pop. share of self-employed (2013)	6.33	6.73	6.64	-0.40	-0.32
Wage per worker (2014)	30,230.77	29,138.36	29,689.91	1,092.41	540.85
Wage per worker growth (2005–2014)	0.24	0.23	0.23	0.00	0.00
n	74	20	14	94	88

Notes: The table show mean t-tests on pre-scandal differences (columns (4) and (5)).

TABLE 3. BASELINE RESULTS

	No controls							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inconsistencies	-3.438***	-3.822***	5.841***	-0.026	-3.017***	-3.757***	5.562**	-0.178
	(0.819)	(1.274)	(2.087)	(0.302)	(0.820)	(1.346)	(2.512)	(0.331)
Repeat	-3.582***	1.390***	-3.297***	-0.399***	-3.517***	1.412***	-3.330***	-0.406***
	(0.141)	(0.132)	(0.101)	(0.031)	(0.136)	(0.134)	(0.098)	(0.031)
Repeat × Inconsistencies	1.091***	0.791**	-0.403*	-0.042	1.013***	0.949***	-0.299	-0.002
	(0.243)	(0.353)	(0.206)	(0.101)	(0.280)	(0.314)	(0.229)	(0.114)
Constant	17.245***	73.789***	48.918***	3.677***	17.018***	73.585***	49.251***	3.693***
	(0.584)	(0.520)	(1.259)	(0.131)	(0.563)	(0.518)	(1.199)	(0.128)
Obs.	234	234	234	234	234	234	234	234
Adj. R²	0.152	0.091	0.054	0.030	0.132	0.070	0.044	0.032
	Controls included							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inconsistencies	-1.722*	-3.762***	1.046	-0.322	-1.447	-4.379***	1.125	-0.537
	(0.947)	(1.297)	(2.164)	(0.288)	(1.072)	(1.338)	(2.758)	(0.336)
Repeat	-3.496***	1.781***	-3.073***	-0.358***	-3.411***	1.851***	-3.165***	-0.360***
	(0.185)	(0.175)	(0.283)	(0.044)	(0.182)	(0.176)	(0.275)	(0.044)
Repeat × Inconsistencies	1.128***	1.372***	-0.275	0.041	1.029***	1.783***	0.276	0.125
	(0.266)	(0.494)	(0.574)	(0.112)	(0.324)	(0.542)	(0.729)	(0.124)
Electorate (log)	-0.921	-1.316***	-0.302	-0.262**	-0.934	-1.286***	-0.327	-0.250**
	(0.789)	(0.449)	(1.549)	(0.108)	(0.791)	(0.453)	(1.554)	(0.109)
Unemployment rate	0.055	-1.641***	-0.130	-0.274***	0.020	-1.746***	-0.102	-0.286***
	(0.316)	(0.222)	(0.554)	(0.046)	(0.319)	(0.221)	(0.548)	(0.046)
Rainfall	0.962	0.584	11.786***	-0.228	1.069	1.022	11.695***	-0.164
	(2.888)	(1.552)	(3.685)	(0.780)	(2.909)	(1.665)	(3.768)	(0.753)
Opening hours of poll. stat.	1.240***	0.529**	-3.751***	-0.173***	1.283***	0.623**	-3.772***	-0.166***
	(0.324)	(0.264)	(0.545)	(0.054)	(0.319)	(0.255)	(0.531)	(0.052)
Constant	18.006**	90.215***	79.034***	8.747***	17.858**	89.487***	79.382***	8.626***
	(7.889)	(4.999)	(16.137)	(1.157)	(7.935)	(5.006)	(16.255)	(1.174)
Obs.	234	234	234	234	234	234	234	234
Adj. R²	0.412	0.356	0.518	0.489	0.408	0.356	0.518	0.496

Notes: Significance levels (standard errors clustered at the district level in brackets): *** 0.01, ** 0.05, * 0.10.

TABLE 4. POSTAL VOTES AND BALLOT BOX VOTES

	Total voting							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	1.128***	1.372***	-0.275	0.041	1.029***	1.783***	0.276	0.125
	(0.266)	(0.494)	(0.574)	(0.112)	(0.324)	(0.542)	(0.729)	(0.124)
Obs.	234	234	234	234	234	234	234	234
Further controls	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R²	0.412	0.356	0.518	0.489	0.408	0.356	0.518	0.496
	Postal voting							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	–	1.019***	-0.369	0.079***	–	1.011***	0.265	0.088***
	–	(0.226)	(0.637)	(0.021)	–	(0.277)	(0.814)	(0.021)
Obs.	–	234	234	234	–	234	234	234
Further controls	–	YES	YES	YES	–	YES	YES	YES
Adj. R²	–	0.403	0.535	0.561	–	0.398	0.536	0.561
	Ballot box voting							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	–	0.353	-0.279	-0.037	–	0.772*	0.273	0.037
	–	(0.410)	(0.596)	(0.102)	–	(0.448)	(0.754)	(0.117)
Obs.	–	234	234	234	–	234	234	234
Further controls	–	YES	YES	YES	–	YES	YES	YES
Adj. R²	–	0.384	0.518	0.476	–	0.387	0.518	0.483

Notes: Significance levels (standard errors clustered at the district level in brackets): *** 0.01, ** 0.05, * 0.10.

TABLE 5. ROBUSTNESS TESTS

	Vienna excluded							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	0.605**	1.527***	-0.077	0.113	0.702**	1.927***	0.311	0.192
	(0.267)	(0.466)	(0.530)	(0.114)	(0.333)	(0.527)	(0.681)	(0.126)
Obs.	188	188	188	188	188	188	188	188
Further controls	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R²	0.340	0.245	0.314	0.320	0.337	0.241	0.316	0.334
	Cross-section control variables included							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	1.005***	0.926**	-0.549	0.007	1.010***	1.193***	-0.427	0.057
	(0.277)	(0.389)	(0.432)	(0.109)	(0.351)	(0.364)	(0.537)	(0.128)
Obs.	234	234	234	234	234	234	234	234
Further controls	YES	YES	YES	YES	YES	YES	YES	YES
Cross-section controls	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R²	0.812	0.691	0.834	0.752	0.811	0.688	0.837	0.755
	Alphabetical pseudo treatment							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	-0.240	-0.387	-0.031	0.068	0.068	-0.211	-0.066	0.090
	(0.359)	(0.358)	(0.540)	(0.089)	(0.334)	(0.354)	(0.418)	(0.077)
Obs.	234	234	234	234	234	234	234	234
Further controls	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R²	0.417	0.309	0.531	0.504	0.408	0.313	0.521	0.505
	Pseudo period							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	-0.614**	0.471	2.769**	-0.111	-0.527	0.318	2.021	-0.193
	(0.272)	(0.839)	(1.066)	(0.135)	(0.322)	(0.918)	(1.305)	(0.136)
Obs.	234	234	234	234	234	234	234	234
Further controls	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R²	0.446	0.403	0.645	0.622	0.442	0.403	0.644	0.627
	Fractionalized logit							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Repeat × Inconsistencies	0.052	-0.013	-0.014	-0.008	0.042	-0.016	0.012	-0.017
	(0.118)	(0.088)	(0.137)	(0.097)	(0.101)	(0.076)	(0.118)	(0.085)
Obs.	234	234	234	234	234	234	234	234
Further controls	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R²	–	–	–	–	–	–	–	–

Notes: Significance levels (standard errors clustered at the district level in brackets): *** 0.01, ** 0.05, * 0.10.

TABLE 6. MICRODATA RESULTS (PROBIT ESTIMATIONS)

	No controls							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*[a]	*FPÖ vote share*[b]	*Invalid vote share*	*Share of postal voters*	*Voter turnout*[a]	*FPÖ vote share*[b]	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inconsistencies	–	-0.292*	0.012	–	–	-0.246	0.083	–
	–	(0.163)	(0.185)	–	–	(0.173)	(0.200)	–
Repeat	–	0.050	-0.002	–	–	0.047	-0.002	–
	–	(0.060)	(0.041)	–	–	(0.057)	(0.040)	–
Repeat × Inconsistencies	–	0.149	0.027	–	–	0.205	0.024	–
	–	(0.117)	(0.092)	–	–	(0.138)	(0.105)	–
Constant	–	0.663***	0.013	–	–	0.643***	0.004	–
	–	(0.072)	(0.076)	–	–	(0.072)	(0.075)	–
Obs.	–	998	756	–	–	998	756	–
Cross-section controls	–	NO	NO	–	–	NO	NO	–
Pseudo-R²	–	0.005	0.000	–	–	0.003	0.000	–
	Cross-section control variables included							
	Constitutional court summons				*Inconsistencies confirmed*			
	Share of postal voters	*Voter turnout*[a]	*FPÖ vote share*[b]	*Invalid vote share*	*Share of postal voters*	*Voter turnout*[a]	*FPÖ vote share*[b]	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inconsistencies	–	-0.353**	-0.172	–	–	-0.335*	-0.160	–
	–	(0.174)	(0.196)	–	–	(0.189)	(0.205)	–
Repeat	–	0.051	-0.024	–	–	0.048	-0.023	–
	–	(0.064)	(0.051)	–	–	(0.060)	(0.048)	–
Repeat × Inconsistencies	–	0.168	0.026	–	–	0.227	0.024	–
	–	(0.124)	(0.100)	–	–	(0.145)	(0.116)	–
Constant	–	1.330***	-0.643**	–	–	1.319***	-0.640**	–
	–	(0.273)	(0.318)	–	–	(0.274)	(0.318)	–
Obs.	–	998	756	–	–	998	756	–
Cross-section controls	–	YES	YES	–	–	YES	YES	–
Pseudo-R²	–	0.070	0.130	–	–	0.068	0.130	–

Notes: The dependent variables are dummy variables coded as follows: a) Voter turnout: Vote for Green or FPÖ candidate = 1, 0 otherwise. b) FPÖ vote share: Vote for FPÖ candidate = 1, 0 otherwise (sample restricted to voters only). Cross-section control variables are the household size, the number of children under age 14, and dummies for female, different age cohorts, different education levels, and different municipality size. See Table A2 in the appendix. We use sample weights provided by meinungsraum.at. Significance levels (standard errors clustered at the level of individuals in brackets): *** 0.01, ** 0.05, * 0.10.

TABLE 7. CHANGES IN VOTING DECISION (PROBIT ESTIMATION)

	Controls included			
	Constitutional court summons		*Inconsistencies confirmed*	
	Change voting decision	*Change FPÖ voting decision*	*Change voting decision*	*Change FPÖ voting decision*
	(1)	(2)	(3)	(4)
Inconsistencies	-0.114	-0.420	-0.076	-0.316
	(0.181)	(0.320)	(0.195)	(0.354)
Obs.	499	499	499	499
Further controls	YES	YES	YES	YES
Pseudo R²	0.048	0.091	0.047	0.085

Notes: The dependent variable is a dummy variable that takes on the value 1 if a voter changed her voting decision from the regular to the repeated round of the election, and 0 otherwise. In columns (1) and (3), the dependent variable takes on the value 1 for any changes in voting decisions. In columns (2) and (4), the dependent variable takes on the value 1 for citizens who voted for the FPÖ in the regular ballot and changed to the Green candidate, to non-voting or to invalid voting in the repeated second ballot. We use sample weights provided by meinungsraum.at. Significance levels (standard errors clustered at the district level in brackets): *** 0.01, ** 0.05, * 0.10.

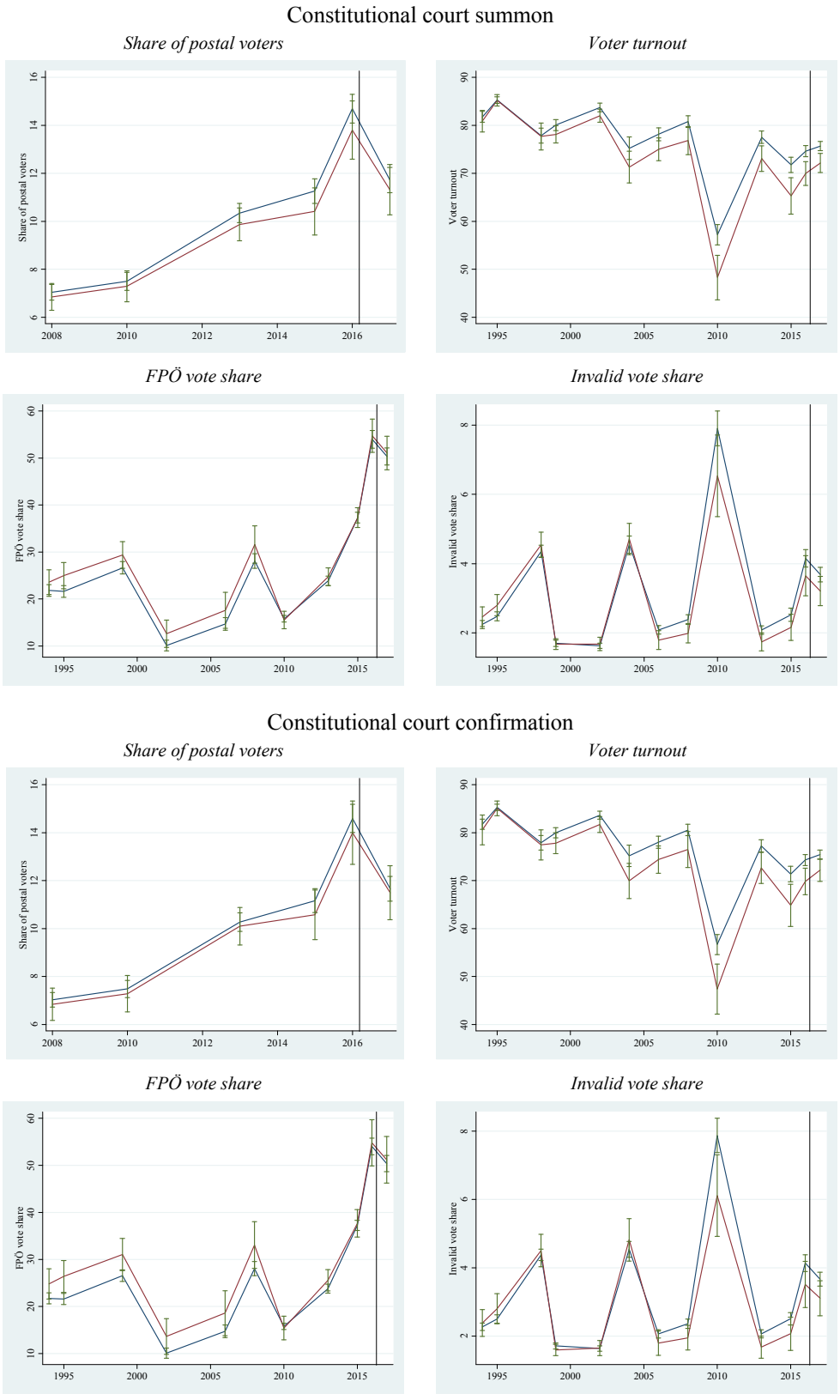
TABLE 8. ATTITUDES TOWARD REPEATED ELECTION

	Full dataset				
	Mean			*Mean difference to Non-scandal*	
	Non-scandal	*Constitutional court summon*	*Inconsistencies confirmed*	*Constitutional court summon*	*Inconsistencies confirmed*
	(1)	(2)	(3)	(4)=(1)–(2)	(5)=(1)–(3)
Knowledge about repeated election					
Informed on repeated election	0.97	0.95	0.93	0.02	0.03
Informed on ruling of the court	0.92	0.94	0.92	-0.02	-0.01
Attitudes towards repeated election					
Pro repeated election	0.52	0.47	0.52	0.05	0.00
Against repeated election	0.39	0.47	0.41	-0.08	-0.02
Conviction of manipulations/inconsistencies					
Manipulations	0.29	0.32	0.35	-0.03	-0.05
Inconsistencies	0.64	0.65	0.62	-0.01	0.02
Ruling of court to repeat election					
Strongly agree	0.39	0.39	0.43	-0.01	-0.04
Moderately agree	0.24	0.18	0.18	0.06	0.06
Moderately disagree	0.15	0.14	0.08	0.01	0.07
Strongly disagree	0.15	0.26	0.28	-0.11***	-0.13***
Impact on Austrian democracy					
Strongly positive	0.41	0.36	0.41	0.05	0.00
Moderately positive	0.24	0.27	0.21	-0.03	0.03
Moderately negative	0.18	0.13	0.13	0.05	0.05
Strongly negative	0.08	0.15	0.15	-0.07**	-0.07**
Intention to vote before scandal					
Greens candidate	0.37	0.32	0.30	0.05	0.06
FPÖ candidate	0.38	0.33	0.35	0.05	0.03
Invalid voting, no voting, others	0.25	0.36	0.35	-0.10**	-0.09*
Intention to vote after scandal					
Greens candidate	0.38	0.34	0.34	0.03	0.04
FPÖ candidate	0.38	0.33	0.35	0.05	0.03
Invalid voting, no voting, others	0.24	0.28	0.26	-0.05	-0.02
Prediction of winner					
Greens candidate	0.41	0.46	0.46	-0.06	-0.06
FPÖ candidate	0.40	0.34	0.31	0.06	0.09
n	406	93	78	499	484

Notes: The table show mean t-tests on differences in survey micro-data (columns (4) and (5)). We use sample weights provided by meinungsraum.at.

Online Appendix

FIGURE A1. TRENDS OF OUTCOME VARIABLES (VIENNA EXCLUDED)



Notes: The figure shows election outcomes of districts (Vienna excluded) which were subject to constitutional court summons (upper panel, $n = 20$), and districts where inconsistencies were confirmed (lower panel, $n = 14$). Vertical lines represent the timing of the scandal. Total number of districts: 94. 1998, 2004, 2010, 2016 (two rounds): Presidential elections. 1994, 1995, 1999, 2002, 2006, 2008, 2013: Parliamentary elections.

TABLE A1. VARIATION IN CONTROL-TREATMENT GROUP DEFINITION

	Control group							
	Non-scandal: yes *Constitutional court summons: no* *Inconsistencies confirmed: no* *(n = 97)*				*Non-scandal: yes* *Constitutional court summons: yes* *Inconsistencies confirmed: no* *(n = 103)*			
	Share of postal voters	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*	*Share of postal voters*	*Voter turnout*	*FPÖ vote share*	*Invalid vote share*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment group								
Constitutional court summons: yes; Inconsistencies confirmed: no (n = 6)								
Repeat × Inconsistencies	1.323***	0.514	-1.476***	-0.130	–	–	–	–
	(0.360)	(0.927)	(0.540)	(0.225)	–	–	–	–
Treatment group								
Constitutional court summons: yes; Inconsistencies confirmed: yes (n = 14)								
Repeat × Inconsistencies	1.055***	1.806***	0.094	0.123	1.029***	1.783***	0.276	0.125
	(0.329)	(0.544)	(0.750)	(0.125)	(0.324)	(0.542)	(0.729)	(0.124)
Treatment group								
Constitutional court summons: yes; Inconsistencies confirmed: yes/no (n = 20)								
Repeat × Inconsistencies	1.128***	1.372***	-0.275	0.041	–	–	–	–
	(0.266)	(0.494)	(0.574)	(0.112)	–	–	–	–

Notes: Significance levels (standard errors clustered at the district level in brackets): *** 0.01, ** 0.05, * 0.10.

TABLE A2. BALANCEDNESS OF MICRO DATA

	Micro data					*National-level data*
	Obs.	*Mean*	*Std. Dev.*	*Min*	*Max*	*Mean*
	(1)	(2)	(3)	(4)	(5)	(6)
Scandal dummies						
Constitutional court summon	499	0.20	0.40	0	1	0.17
Inconsistencies confirmed	499	0.16	0.37	0	1	0.12
Socio-demographics						
Pop. share of female	499	0.52	0.50	0	1	0.51
Household size	499	2.34	1.12	1	5	2.22
Children ≤ 14 in household	499	0.26	0.66	0	5	0.32
States (Population share)						
Burgenland	499	0.04	0.19	0	1	0.03
Carinthia	499	0.07	0.26	0	1	0.06
Lower Austria	499	0.19	0.39	0	1	0.19
Upper Austria	499	0.17	0.37	0	1	0.17
Salzburg	499	0.06	0.24	0	1	0.06
Styria	499	0.15	0.35	0	1	0.14
Tyrol	499	0.08	0.28	0	1	0.08
Vorarlberg	499	0.04	0.20	0	1	0.04
Vienna	499	0.20	0.40	0	1	0.21
Education (Population share)						
Secondary school	499	0.25	0.44	0	1	0.27
Traineeship ("Lehre")	499	0.49	0.50	0	1	0.46
A-level	499	0.13	0.34	0	1	0.14
College	499	0.03	0.16	0	1	0.03
University	499	0.10	0.31	0	1	0.10
Municipality size (Population share)						
Population <2,000	499	0.14	0.34	0	1	0.15
Population >2,000, <5,000	499	0.22	0.41	0	1	0.24
Population >5,000, <20,000	499	0.21	0.41	0	1	0.22
Population >20,000, <50,000	499	0.06	0.24	0	1	0.06
Population >50,000, <100,000	499	0.05	0.22	0	1	0.03
Population >100,000, <500,000	499	0.13	0.33	0	1	0.09
Population >500,000 (Vienna)	499	0.20	0.40	0	1	0.21

Notes: The table presents the descriptive statistics of the micro-dataset in columns (1) to (5). We use sample weights provided by micro data pollster meinungsraum.at. Column (6) shows the Austrian average at the national level. Data are obtained from the Statistical Office of Austria and refer to 2016 (Household size: 2015, Education: 2014).

TABLE A3. CHANGES IN VOTING DECISION (PROBIT ESTIMATION – EXTENDED OUTPUT)

	Controls included			
	Constitutional court summons		*Inconsistencies confirmed*	
	Change voting decision	*Change FPÖ voting decision*	*Change voting decision*	*Change FPÖ voting decision*
	(1)	(2)	(3)	(4)
Inconsistencies	-0.114	-0.420	-0.076	-0.316
	(0.181)	(0.320)	(0.195)	(0.354)
Female	0.110	0.061	0.109	0.059
	(0.136)	(0.221)	(0.136)	(0.220)
Household size	0.098	-0.036	0.097	-0.037
	(0.080)	(0.132)	(0.080)	(0.132)
Children ≤ 14 in household	-0.042	0.062	-0.042	0.061
	(0.135)	(0.172)	(0.133)	(0.174)
Age 16–19	-0.578	0.129	-0.567	0.164
	(0.451)	(0.520)	(0.451)	(0.517)
Age 20–29	-0.356		-0.355	
	(0.245)		(0.246)	
Age 30–39	-0.152	-0.388	-0.147	-0.373
	(0.228)	(0.344)	(0.227)	(0.343)
Age 40–49	0.086	-0.296	0.090	-0.283
	(0.199)	(0.285)	(0.199)	(0.283)
Age 50–59	0.070	-0.256	0.071	-0.248
	(0.207)	(0.349)	(0.207)	(0.351)
Secondary school	0.327	0.203	0.328	0.194
	(0.269)	(0.507)	(0.268)	(0.504)
Traineeship ("Lehre")	0.013	-0.020	0.016	-0.019
	(0.222)	(0.454)	(0.221)	(0.453)
A-level	0.294	0.062	0.297	0.064
	(0.280)	(0.550)	(0.280)	(0.547)
College	-0.400	0.483	-0.390	0.500
	(0.476)	(0.656)	(0.475)	(0.655)
Population <2,000	-0.168	0.214	-0.193	0.150
	(0.241)	(0.452)	(0.239)	(0.462)
Population >2,000, <5,000	0.216	0.347	0.207	0.334
	(0.211)	(0.312)	(0.209)	(0.310)
Population >5,000, <20,000	0.204	0.907***	0.191	0.882***
	(0.219)	(0.272)	(0.218)	(0.271)
Population >20,000, <50,000	-0.465	0.151	-0.470	0.146
	(0.312)	(0.493)	(0.311)	(0.493)
Population >50,000, <100,000	-0.795**		-0.809**	
	(0.405)		(0.405)	
Population >100,000, <500,000	0.158		0.153	
	(0.229)		(0.229)	
Obs.	499	499	499	499
Pseudo R²	0.048	0.091	0.047	0.085

Notes: The dependent variable is a dummy variable that takes on the value 1 if a voter changed her voting decision from the regular to the repeated round of the election, and 0 otherwise. In columns (1) and (3), the dependent variable takes on the value 1 for any changes in voting decisions. In columns (2) and (4), the dependent variable takes on the value 1 for citizens who voted for the FPÖ in the regular ballot and changed to the Green candidate, to non-voting or to invalid voting in the repeated second ballot. We use sample weights provided by meinungsraum.at. Significance levels (standard errors clustered at the district level in brackets): *** 0.01, ** 0.05, * 0.10.

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