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Online Versus Offline: Which Networks Spur Protests?

Abstract

Does social media or offline social cohesion overcome collective action problems more effectively when both types of networks are prevalent? We investigate non-violent protests against a place-based economic reform in Austria—a country where one in two citizens uses Facebook but also one in two citizens is a member of a local club or civic organization. Our results show that protests spread more in places with strong offline networks as measured by real-life networks like village, folklore, or dialect clubs. We do not find that social media penetration intensifies local protests, a finding corroborated by microdata.

JEL-Codes: D710, D720, Z200.

Keywords: online and offline networks, social media, social cohesion, civic organizations, social capital, protest, economic reform, populism.

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1 Introduction

Networks accelerate communication which is a key condition to coordinate and to overcome the collective action problem (Olson, 1965; Hardin, 1982; Ostrom, 1990). Social media networks such as Facebook and Twitter have globalized once locally bound communication as news bypass state censorship and spread within minutes. Those new opportunities to communicate and coordinate promoted large-scale protests in non-democratic countries, for example in Egypt and Russia (Acemoglu *et al.*, 2018; Enikolopov *et al.*, 2020). Social media has also sparked radical and violent protests in countries that have enjoyed democratic institutions for a long time, for example the French *Gilet jaunes* movement (Boyer *et al.*, 2020) or the far-right *Pegida* in Germany (Stier *et al.*, 2017).

Despite the rise of social media, 'classic' offline networks in local clubs and civic organizations such as sports clubs, choirs, village clubs, or charity organizations are still main spots for communication and interaction. Almost one in two respondents of the 2017 European Values Study (EVS) reports to be a member of a club. An intriguing but yet unresolved question is whether social media or offline networks are more effective in overcoming collective action problems. If social cohesion and face-to-face communication are pronounced, social media and offline networks could well be both substitutes or complements. Data for the Spring Revolution protests in Myanmar in 2021 suggest that protests spread more in regions where citizens often meet *in person* in tea shops, a traditional place to meet friends (Figure 1). The correlation between local protests and tea shops is positive and stronger than the correlation between local protests and mobile phone users. Face-to-face communication still seems to be quite relevant.

[Figure 1 about here]

We examine empirically whether social online and offline networks influence non-violent protests in societies where both types of networks are widely used for communication. A place-based economic reform in the Austrian state of Styria (*Steiermark*) gave rise to significant protests. Styria used to have 542 local governments (municipalities). In 2015, the central government merged 371 out of 542 municipalities into 125 new municipalities, expecting cost savings in administrations. Citizens were worried about local autonomy

and protested against the reform, filed petitions, and supported local initiatives to stop the reform (Figure A1 in the Online Appendix). In opinion polls, one out of three citizens in merged municipalities opposed the economic reform which was the most salient political issue at this time.[1] Protests are fired by the main opposition party, the far-right populist Freedom Party of Austria (FPÖ). We investigate the magnitude of protests against the economic reform and whether protest activities are pronounced where social cohesion is strong and citizens are organized in many clubs or where many citizens use social media. Both types of networks were equally widespread: 54 % of the population were members of local clubs (like sports clubs, folklore clubs, etc.), 48 % were daily Facebook users at the time of the reform (Figure 2).[2] Protests are measured by voting for far-right populists as the main anti-reform opposition, support for a protest initiative by local officials, and individual protest activities reported in microdata. The economic reform was clearly limited to well-defined parts of the country; this rare case of a place-based economic reform allows us to identify causal effects. 155 municipalities were not merged and are an ideal control group for the 125 affected municipalities in difference-in-differences and event study estimations (Figure 3 in Section 2).

[Figure 2 about here]

Our results show that strong social cohesion intensifies local protests but social media does not seem to play a role. Protest votes for far-right populists increase more in reform municipalities with many clubs, and the effects are persistent for at least six elections over a period of five years. Local officials in municipalities with strong social cohesion are also more likely to join in the official protest movement *'Steirische Gemeindeinitiative'*. Microdata from the EVS show that club members are more likely to sign a petition or to participate in boycotts, demonstrations, and strikes than non-club members. The effects are mainly driven by civic organizations that promote a local identity and in-group cohesion such as village, folklore, or dialect clubs. We do not find effects of sports and charity clubs. Most importantly, however, social media—as measured by broadband internet infrastructure at the municipality level (Schaub and Morisi, 2020) and individual social

[1] See, ORF.at, 22.03.2015, `https://steiermark.orf.at/v2/news/stories/2701129/`.

[2] Figure A2 in the Online Appendix shows that Facebook was particularly trending in Austria at the time of the economic reform.

media usage in the EVS—is also not found to promote protest against the economic reform. We conclude that offline face-to-face networks overcome collective action problems when social cohesion is strong. Social media does not seem to contribute to coordination in such a context.

Our paper is the first simultaneously investigating how online and offline networks influence the spread of protests. Previous studies have shown that internet access and social media promote protest voting (e.g., Falck *et al.*, 2014; Miner, 2015; Campante *et al.*, 2018; Gavazza *et al.*, 2019; Donati, 2020; Guriev *et al.*, 2021) and social networks (offline or online) mobilize citizens to join protests on the streets (e.g., Andrews and Biggs, 2006; Somma, 2010; Acemoglu *et al.*, 2018; Mooijman *et al.*, 2018; Boulianne *et al.*, 2020; Boyer *et al.*, 2020; Enikolopov *et al.*, 2020; González, 2020; Zhuravskaya and Petrova, 2020; Bursztyn *et al.*, 2021).[3] During the English Swing riots of 1830–31, the foundational case in the study of unrest in social history, personal and trade networks spread information about the riots, transport or mass media networks did not (Aidt *et al.*, 2022; Aidt and Leon-Ablan, 2022). We use measures for both online and offline networks and show that reliable real-life networks are more important than social media if social cohesion is strong. More generally, we also corroborate results of recent studies showing that co-location and physical proximity matters to human cooperation (Carmody *et al.*, 2022).

Second, our results suggest that social cohesion—or social capital—can mobilize populist attitudes rather than democratic values. This 'dark side' of social cohesion was already acknowledged in the pioneering study by Putnam (2000) but has received comparably little research attention so far.[4] Some studies have shown that social cohesion reinforces populism (Satyanath *et al.*, 2017; Foertsch and Roesel, 2022). Other studies find that club membership and populist voting are negatively correlated (Giuliano and Wacziarg, 2020; Boeri *et al.*, 2021). We examine Austria as a country with a long tradition in modern populism (Ochsner and Roesel, 2020). The far-right populist party FPÖ has entered the national parliament in all elections since 1949. We therefore use long time series and show that the effects of social cohesion on populism depend on outside conditions—such as the

[3]Riots and the threat of violence have influenced voting behavior for a long time. See, for example, Aidt and Franck (2015) who investigate the English Swing riots of 1830–31.

[4]On Putnam's concept see also Bjørnskov (2006) and Bjørnskov and Sønderskov (2013).

presence of economic reforms. Social cohesion has never influenced populist voting for a long time, but clubs turn into 'social multipliers' (Madestam *et al.*, 2013) for populist-backed protests once government reform plans are announced. However, not all clubs are equally likely to transmit protests: Our effects are driven by local clubs with a pronounced in-group and identity orientation such as village clubs.

Third, our paper shows that economic reforms can fuel populist voting. Previous studies have mainly focused on economic outcomes such as growth or income inequality (Berggren, 1999; Bekaert *et al.*, 2005; Prati *et al.*, 2013; Eggertsson *et al.*, 2014; Cette *et al.*, 2016; De Haan and Sturm, 2017; Furceri *et al.*, 2019; Campos *et al.*, 2020; Gründler *et al.*, 2020). Studies dealing with political aspects of reforms are rare and have shown that voters sometimes punish incumbents for reforms or budget cuts (Buti *et al.*, 2014; Alesina *et al.*, 2019, 2020). The effects of reforms on democracy are inconclusive (Giuliano *et al.*, 2013). Our study is the first showing that economic reforms may give rise to populist protest voting. Disenchanted citizens seem to turn away from (mainstream) politics. Previous studies that investigated determinants of populist voting have focused on migration (e.g., Otto and Steinhardt, 2014; Halla *et al.*, 2017; Dustmann *et al.*, 2019; Edo *et al.*, 2019; Steinmayr, 2021), historical roots (Voigtländer and Voth, 2012; Ochsner and Roesel, 2017, 2020), electoral institutions (Potrafke and Roesel, 2020), globalization (Norris and Inglehart, 2019; Autor *et al.*, 2020; Dippel *et al.*, 2022) or crises and austerity (Funke *et al.*, 2016; Becker *et al.*, 2017; Galofré-Vilà *et al.*, 2021), but not on economic or structural reforms.

Fourth, we relate to studies evaluating local government merger reforms. Politicians usually expect substantial economies of scale by merging municipalities into larger units that, in turn, may give rise to savings in public expenditure and employment. However, the evidence is at least mixed (Lassen and Serritzlew, 2011; Reingewertz, 2012; Blom-Hansen *et al.*, 2014; Blesse and Baskaran, 2016; Roesel, 2017). Our results do also not suggest that merging local governments promote cost savings, changes in revenues, or effects on public debt. We show unintended side effects: Populists benefit from merging municipalities and voter turnout decreases, even if mergers were voluntary.

2 Institutional background

2.1 Merger reform in the Austrian state of Styria

We investigate an economic reform in the Austrian state of Styria (*Steiermark*). Austria is a federal republic and encompasses nine federal states, with Styria ranking fourth in terms of population (1.2 million). Styria borders Slovenia in the south. Large parts of the state are alpine and unsuitable for habitation. The south-east is somewhat less alpine than other regions in Styria. Styrian settlements and villages are therefore mainly concentrated to the numerous valleys of Alpe rivers or surround the capital city of Graz (300,000 inhabitants).

In 2015, the Styrian state government implemented a large economic reform. Styria used to have some 542 independent local governments (municipalities) with an average population of around 1,700 to 1,800 inhabitants when excluding the large capital city of Graz.[5] Many small and rural municipalities experienced a decline in population and were indebted. After the 2010 state election, a cross-bench coalition state government consisting of the Social Democratic Party (SPÖ) and the Conservative Party (ÖVP) launched a reform process to consolidate small municipalities, expecting large cost savings in administrations from economies of scale. Cutting costs, enhancing efficiency, and reducing public debt were the main goals of the reform—similar to many public sector reforms in other countries. For example, Greece consolidated municipalities from more than 1,000 to 325 during the 'Kallikrates programme' under the pressure of the Troika after 2010. The 2015 merger reform in Styria is therefore an ideal laboratory to investigate the political effects of a widespread type of economic reform.

The economic reform in Styria was organized in two periods. In a first period of voluntary mergers, 196 municipalities agreed to form 68 new municipalities. Another 175 former municipalities were forced to merge into 57 new municipalities in the second period of the reform. In sum, 125 new municipalities were created out of 371 former municipalities (see, Figure 3).[6] However, another 155 municipalities were untouched and not affected by the reform. Responsibilities of municipalities did also not change. The state parliament

[5] A first merger reform starting in the 1950s cut the number of municipalities from over 1,000 to 542.
[6] For details, see Roesel (2016), Wlattnig *et al.* (2016), Heinisch *et al.* (2018), and Teurezbacher (2019).

approved all mergers on 17 December 2013. The reform took effect on 1 January 2015 and reduced the number of municipalities from 542 to 286 today, with an average population of some 3,300.[7]

[Figure 3 about here]

2.2 Political context

Citizens, local politicians, and the opposition in the state parliament were quite concerned about the merger reform. Forced mergers were part of the second reform period and gave rise to pronounced local protests. 103 municipalities administered referendums and polls. Only in 14 municipalities, a majority of the voters supported mergers.[8] In 2012, mayors and local officials from 107 municipalities founded an initiative *'Steirische Gemeindeinitiative'* which aimed at stopping the merger reform. 42 municipalities called the constitutional court that, however, dismissed the lawsuits. Protests also include demonstrations, petitions to parliaments, posters, and social media campaigning.

The merger reform was advocated by the coalition government of the Social Democratic Party (SPÖ) and the Conservative Party (ÖVP). The SPÖ and the ÖVP approved the reform in the state parliament. By contrast, the opposition consisting of the far-right populist Freedom Party of Austria (FPÖ), the Green Party (Grüne), and the Communist Party (KPÖ) campaigned and voted against the merger reform in the state parliament. However, the main far-right populist FPÖ was the leading opposition party at this time with local party cells in almost all Styrian municipalities. The Green Party and the KPÖ operated only in larger cities. The initiative *'Steirische Gemeindeinitiative'* campaigned 'no votes for the deniers of democracy SPÖ and ÖVP' on more than 2,000 posters published all over the country; the FPÖ launched an own campaign portraying the state government as a steamroller (see, Figure A1 in the Online Appendix). Thus, we would expect that citizens protesting against the reform may either abstain from voting or cast a ballot for one of the opposition parties, the far-right populist FPÖ in particular.

[7] We use only 280 out of 286 municipalities in our analysis because some municipalities merged before or after 2015 and we exclude the state capital of Graz. See section 3 for details.

[8] See, ORF.at, 16.12.2013, `https://steiermark.orf.at/v2/news/stories/2620695/`.

2.3 Social networks and internet speed

One of two Austrians is organized in at least one registered club (Figure 2): sports clubs, charity organizations (e.g., Red Cross, honorary fire brigades), choirs, dialect and folklore clubs, rabbit breeders associations and many more. Many citizens meet at least once a week in one of the clubs which are focal points of social cohesion. Club meetings are an ideal occasion to chat about private and public affairs including politics. Due to its high density of well-organized civic organizations, a newspaper labelled Austria a 'country of the 122,279 presidents'—one in 70 citizens is president of a club.[9] The state of Styria (13 clubs per 1,000 capita, see Table 2 in Section 3) is close to the Austrian average (14 clubs). This means, more than 40 clubs exist in the comparably small average municipality of around 3,300 inhabitants. Local club density varies substantially across Styria (see, Figure 3).

Despite the large number of offline networks, social media is trending in Austria as everywhere. By far the most popular social media network at the time of the 2015 economic reform was Facebook with some 3.4 million registered users (40% of the population), only 0.125 million Austrians were using Twitter (1% of the population).[10] Facebook developed very similarly in the federal state of Styria as compared to the Austrian average (see the Google Trends analytics in Figure A2 in the Online Appendix). One in two Styrian citizens used Facebook at least once a day in 2014 at the time of the economic reform (Figure 2). Thus, real-life offline networks and social media were equally widespread when the government proposed and implemented the merger reform and protests were formed.

A main precondition for social media usage are sufficient internet connections. Previous research has shown that high-speed internet well predicts social media use (see, for example, Schaub and Morisi, 2020). As very local data on social media users is not available, we follow the literature and use internet speed as a proxy. To verify the link between internet speed and social media use, we visited all official Facebook profiles of all municipalities in Styria and counted the number of followers in December 2020. Municipalities' facebook profiles have 22 follower per 100 capita on average. We regress Facebook followers per capita

[9] See, Die Presse, 'Das Land der 122.279 Präsidenten', 19.03.2016, `https://www.diepresse.com/4949939/das-land-der-122279-prasidenten`.

[10] Artworx, June 2015, `https://www.artworx.at/social-media-in-oesterreich-2015-2/`.

on average internet speed (overall mobile and fixed-line download speed) between 2013 and 2020 which we derive from a speed test database.[11] Table 1 shows the results. Facebook density and internet speed are positively correlated and the correlation is statistically significant at the 1% or 5% level. Controlling for social cohesion measured as club density (column (2)) or socio-demographics (column (3)) does not change the inferences. Thus, we are confident that in line with previous studies (Schaub and Morisi, 2020) internet speed is a suitable proxy for social media use in our setting. Figure 3 compares local differences in internet speed across Styria to the spatial distribution of local clubs.

[Table 1 about here]

3 Identification

3.1 Data

We investigate how social networks contribute to the spread of three types of non-violent protests: protest voting, protests by local officials in an anti-reform initiative, and political protest actions (petition, demonstration, boycott, strike). First, we use the vote share (votes over all valid votes) for the far-right populist FPÖ which campaigned against the economic reform. Around 15% of all votes are casted for the FPÖ in Styria (see, Table 2). Our data cover all 26 local, state and national elections in the Austrian state of Styria over the period 1986–2020 at the new territorial status of 286 municipalities.[12] Second, we investigate a more institutionalized way of protest. In 2012, mayors and local officials of local governments founded the *'Steirische Gemeindeinitiative'*. The initiative aimed at stopping the merger reform. 107 former municipalities joined the protest initiative. We use a dummy variable taking on the value of one if at least one partner of a newly formed municipality participated in the initiative. Third, we employ microdata from the EVS. We use the 2018 wave which was conducted after the 2015 reform. As we cannot geolocate individual respondents, we include only respondents living in municipalities of a small

[11] The total number of Facebook followers today represents the stock accumulated over the last years. Internet speed data are available since 2013, therefore we use the average speed between 2013 and 2020 to proxy Facebook users as of late 2020.

[12] We do not consider European and Presidential elections where voter turnout is lower and not all parties compete.

town size.[13] Participants were asked whether they have ever participated in a petition, demonstration, boycott, or strike. A dummy variable indicates whether a respondent from the Austrian state of Styria reports at least one such political protest action.

[Table 2 about here]

All data are combined with information about social cohesion and social media. We measure social cohesion by the total number of local clubs in municipalities or information about club membership when using EVS microdata. There is data available on the total number of clubs per municipality in the year 2018 from a unique survey conducted by local statistical authorities.[14] Data include the total number of three types of clubs: sports clubs, charity clubs (honorary fire brigades, Red Cross branches etc.), and all other clubs which mainly address local culture, traditions, and identity (village, folklore, or dialect clubs). There are some 15,000 clubs in Styria which translates into 13 clubs per 1,000 capita (Table 2). One third of all clubs are sports clubs or charity clubs. We cannot, however, disentangle other types of clubs, and have only information for the year 2018.[15] On the individual level, the EVS reports that every second Styrian citizen is a member of a club. Some 20% of all respondents are sports clubs members which is the most frequent form of membership.[16] 20% are members of charity-oriented clubs. Because we observe only some 180 respondents, we cannot compute reliable membership rates for other types of clubs. However, we aggregate membership in non-sports and non-charity clubs into a variable 'other club member'. As introduced in Section 2, social media is measured by average internet speed rates in Mbps over the period 2013-2015.[17] Internet speed has been used by other studies to proxy for social media use (Schaub and Morisi, 2020). Table 1 shows that average internet speed over the period 2013-2020 strongly correlates with

[13]The maximum population size of a municipality involved in the reform is around 25,000. We therefore include respondents living in a municipality smaller than 5,000, between 5,000 and 20,000, and 20,000 to 100,000 inhabitants.

[14]Publication: '*Vereine in der Steiermark 2018*', Bericht, Amt der Steiermärkischen Landesregierung, A17 Landes- und Regionalentwicklung. We have inquired data on clubs per municipality which was not part of the original publication.

[15]Only data on sports clubs is also available for 2008.

[16]Membership rates very similar to the Austrian state of Styria are reported for Austria as a country (Nachrichten.at, 14.06.2018, `https://www.nachrichten.at/panorama/chronik/Zahl-der-Vereinsmitglieder-in-OEsterreich-nimmt-ab;art58,2924626`).

[17]In our baseline model we use overall download speed. For robustness tests, we also use upload speed, and disentangle download and upload speed for mobiles and fixed-lines.

the number of Facebook followers of the official local government Facebook profile in the year 2020. By contrast, the results in Table 1 do not suggest that the number of clubs correlates with the number of Facebook followers. When using EVS microdata, we code social media users as respondents reporting to use social media more than once a week for political information.

The EVS microdata also include information about the socio-economic background, trust, and local identity of the respondents. In our municipality-level analyses, we control for local population and use geography variables in propensity score matching. We also investigate fiscal performance. All data are from the federal statistical office (*Statisik Austria*). Geodata are retrieved from the web portal *geoland.at*. We convert all data to the most recent territorial status as of 2020 with 286 municipalities. We exclude five municipalities which were merged either before or after the large 2015 merger reform and we exclude the capital city of Graz. Table 2 portrays all variables included in our main dataset at the municipality level.

3.2 Difference-in-differences

Data on protest voting for far-right populists are available as panel data. For this type of protest, we investigate how social cohesion and social media influence protest mobilization in two steps. First, we contrast protest voting in merged municipalities with the control group of unaffected municipalities before and after the reform. We therefore identify average effects of the economic reform on protests yet without considering social cohesion and social media. Second, we identify heterogeneous protest effects by local club density and internet speed to examine whether social cohesion and social media mobilize additional protest against economic reforms.

Our key identifying assumption in the first step is that merged municipalities would have followed the trend of unaffected municipalities in the absence of the economic reform. Figure A3 in the Online Appendix compares the group of merged to not-merged municipalities before and after the reform. We plot the first difference in far-right populist vote shares in local elections. In the period before the reform (2005 to 2010), the distribution of changes in populist votes were quite similar in both groups. After the reform (from the local

election 2010 to 2015), however, distributions clearly diverge. Populist votes increase more in the group of merged municipalities. Event study specifications reported in the Online Appendix corroborate that the common trend assumption holds in all pre-reform elections (see, Figure A4). We match on a cross-section of geographical characteristics which further reduces the already small remaining differences between reform and control group (see, Table A1 in the Online Appendix). Our main specification is a difference-in-differences model with OLS, standard errors clustered at the municipality level, control variables, and propensity matching weights:

$$Far\text{-}right_{it} = \alpha_i + \beta_t + \gamma(Reform_i \times After_t) + X'_{it}\delta + \epsilon_{it} \tag{1}$$

$Far\text{-}right_{it}$ describes the far-right populist vote share in municipality i and election t. γ relates to the interaction term $(Reform_i \times After_t)$ and measures the effect of economic reforms on protest voting. The dummy variable $Reform_i$ equals one when municipality i was involved in the 2015 merger reform, and zero otherwise. $After_t$ takes on the value of one for all elections after 1 January 2015 when the reform was implemented. Only the interaction is included in the specification because both variables $Reform_i$ and $After_t$ are absorbed by municipality fixed effects (α_i) and election fixed effects (β_t). The vector X includes five control variables: population (log), females as a share of population, foreigners as a share of population, and the share of citizens being younger than 15 and older than 75. ϵ_{it} is the error term.

Our main specification of interest for the second step is described by equation 2 where we interact the reform effect $(Reform_i \times After_t)$ from equation 1 with local social cohesion $(Clubs_i)$ or social media $(Internet_i)$. The result is a triple interaction regression of the following form:

$$\begin{aligned} Far\text{-}right_{it} = \alpha_i + \beta_t + \gamma_1(Reform_i \times Clubs_i \times After_t) + \\ \gamma_2(Reform_i \times After_t) + \gamma_3(Clubs_i \times After_t) + X'_{it}\delta + \epsilon_{it} \end{aligned} \tag{2}$$

and

$$\begin{aligned} Far\text{-}right_{it} = \alpha_i + \beta_t + \theta_1(Reform_i \times Internet_i \times After_t) + \\ \theta_2(Reform_i \times After_t) + \theta_3(Internet_i \times After_t) + X'_{it}\delta + \epsilon_{it} \end{aligned} \tag{3}$$

Now, γ_1 and θ_1 refer to our coefficients of interest. $Clubs_i$ is number of clubs per 1,000 capita in the year 2018 in municipality i. Triple interactions are included to examine whether the effect size *within* the group of merged municipalities depends on local social cohesion and social media. One may worry that trends in municipalities with low and high levels of social cohesion and social media already diverged before the reform. Event studies are powerful tools to investigate common pre-reform trends also in the case of triple interactions. We interact the election fixed effects with the reform effect ($Reform_i \times Clubs_i$) and ($Reform_i \times Internet_i$); the base category is the year 2008 which was the last year before discussions about the merger reform began. We later show that social cohesion and social media did never matter to political outcomes *within* the group of merged municipalities before the reform, but after the reform (see, Figure A5 in the Online Appendix). We also use voter turnout, vote shares of other political parties and fiscal policy outcomes as the dependent variables, and fine-grained information on the type of clubs or different types of internet speed.

3.3 Cross-section regressions

Data on the protest initiative *'Steirische Gemeindeinitiative'* are a cross-section from 2012 and EVS data on individual protest actions are from 2018. In both cases, difference-in-differences estimations are not feasible. We therefore estimate cross-section probit models using only municipalities affected by the reform. Participation in the initiative is the dependent variable, local clubs or internet speed are the main explanatory variables.

$$Protest_i = \alpha + \gamma Clubs_i + \theta Internet_i + X'_i\delta + \epsilon_i \tag{4}$$

Our coefficients of interest are γ and θ. When using municipality-level data on protest initiative membership as the dependent variable $Protest_i$, the vector X includes the

five control variables described for equation 1. γ and θ describe whether stronger social cohesion or more social media penetration are associated with a higher probability of being a member of the protest initiative. When EVS data are applied, we use information on club membership and social media use of individuals. Then, γ and θ report whether being a club member or a user of social media comes with a higher probability for protest actions (sign a petition or to participate in boycotts, demonstrations, and strikes). Estimations of the type of equation 4 provide supportive evidence for our main analyses.

4 Main results

4.1 Protest voting

Table 3 shows how the economic reform influences far-right populist voting. We find robust and statistically significant effects at the 5% and 1% level. Votes for far-right populists absorbing local protests increase by 1.3 to 1.6 percentage points in reform municipalities (panel 'Reform effect' in columns (1) and (2)). The parameter estimate barely changes when we include controls and match over pre-reform characteristics (column (2), 17 out of 280 municipalities drop out with a matching weight of zero). This is also an economically significant effect of around one-fifth of a standard variation in far-right populist vote shares. Thus, we observe that voters express protest against the merger reform by turning to the far-right populists which were by far the main opposition against the merger reform.[18]

[Table 3 about here]

We now turn to the role of social cohesion and social media in promoting protest voting. Columns (3) and (4) in Table 3 (panel 'Social cohesion') show how the presence of clubs (per 1,000 capita) influences the effect of the merger reform on protest voting. We exploit within variation: the triple interactions report how reform effects change in different levels of social cohesion. The results show that an increase in the vote share of the far-right populist party in reform municipalities is some 0.19 and 0.23 percentage points larger when

[18]Event study estimates shown in Figure A4 confirm common pre-reform trends and reveal pronounced effects for the local elections in 2015 and 2020 and in the state election of 2015.

the total number of clubs increases by one per 1,000 capita (columns 3 and 4). There were some 13 clubs per 1,000 capita and 3,800 inhabitants in the average (matched) reform municipality (see, Table A1 in the Online Appendix), which implies 50 clubs. When the number of clubs per 1,000 capita increases by 5 clubs (standard deviation in matched reform municipalities), the vote share of the far-right populist party increases by around one percentage point. In other words: doubling the number of clubs gives rise to, on average, an increase of around 2 percentage points of the FPÖ vote share. This is an economically significant effect which is statistically significant at the 1 % level. Table A6 in the Online Appendix shows that additional votes for the far-right FPÖ come at the cost of the Conservative party ÖVP.[19]

Columns (5) and (6) in Table 3 (panel 'Social media') show how the effect of the merger reform on protest voting varies in internet speed as a proxy for social media: it is quite different as compared to the effect of social cohesion. The point estimate of the triple interaction term ($Reform_i \times Internet_i \times After_t$) is negative. It is statistically significant at the 10 % level in column (5) and lacks statistical significance in column (6) after including controls and matching weights. Column (1) in Table A2 in the Online Appendix shows the results when we include both, the number of clubs and internet speed in one specification. Doing so hardly alters the parameter estimates of any triple interaction term. We find a robust effect of clubs (statistically significant at the 1% level) and a weak negative effect of our social media proxy.

Event study results confirm that social cohesion catalyzes populist voting after the reform, but not before the reform. Figure 4 shows how the triple interactions evolve over time. The national election in 2008 was the last election before the discussions about the economic reform started; this election serves as base category. Vertical bars indicate the 95% confidence interval. We do not observe any statistically significant difference between later reform and non-reform municipalities before the reform discussions started, compared to the 2008 base difference. 95% confidence intervals always include the zero for the

[19]The other government party, the Social Democrats SPÖ did not experience an economically or statistically significant decrease in voter support. Also other small opposition parties, were hardly influenced by the reform. Voters also tended to express protests by abstaining from elections. Voter turnout decreased by around 1.0 percentage points in merged municipalities. When interacted with social capital, only effects for the far-right FPÖ are statistically significant.

number of clubs and internet speed as shown in Figure 4. This is strong support to our assumption of parallel trends before the reform. After 2008, however, far-right populist vote shares diverge between municipalities with a large and small number of clubs. The effects are statistically significant at the 10% level in almost all post-reform elections. However, triple interactions are especially pronounced for the 2015 state election. This election was the first opportunity to punish the incumbent central government for the economic reform. The estimate for the 2015 local election suggests that the vote share of the far-right populist party increases by around 0.4 percentage points when the number of clubs increases by one per 1,000 capita in a reform municipality. Thus, the effect is as twice as large in the direct aftermath of the reform compared to the overall post-reform effect reported in column (4) of Table 3. Again, we do not find any statistically significant effects for internet speed (right-hand side of Figure 4). If anything, we observe a negative correlation which is in line with the estimates shown in Table 3. Event studies therefore corroborate that real-life networks spur protest voting, but not social media.

[Figure 4 about here]

We disentangle different types of clubs. Figure A5 in the Online Appendix shows event studies when we use sports clubs, charity clubs, and all other clubs separately. The results show that point estimates for sports clubs and charity clubs tend to increase after the reform but effects are hardly statistically significant. We find pronounced effects for all other clubs which mainly include village, folklore, or dialect clubs. Those clubs are very likely to promote face-to-face communication about identity-related political issues such as municipal mergers. The effects are well in line with our findings for social media. Dense networks or interaction are not sufficient for spurring protests, the context or background of the network is equally important.[20]

How clubs promote protests against reforms may well depend on whether social media networks are dense. In a similar vein, social media may also promote protests against reforms when hardly any clubs are present. To examine such interactions, we split the sample of municipalities into three groups along the 33% quantile and 66% quantile in

[20]Similarily, we test different internet speed measures. See, Figure A6.

average internet speed (download speed) and in local clubs per 1,000 capita. Table A3 in the Online Appendix shows that clubs promoted protests against reforms in municipalities in a non-linear way. We find statistically significant effects of local clubs in municipalities with both low and high social media intensity, but not for medium social media penetration. Communications in clubs is needed to organize protests when communication in social media networks is hardly possible. Communication in clubs is intensified in municipalities with very dense social media networks. Social media networks do, however, not seem to promote protests against reforms at any number of local clubs. These results of—if anything— weak interactions corroborate our baseline findings.

4.2 Anti-reform protest initiative

Local officials expressed protest against the planned economic reform by joining the official protest initiative *'Steirische Gemeindeinitiative'*. 107 local governments officially passed resolutions. We examine whether being organized in a protest initiative is also correlated with the social cohesion or social media in the individual municipalities. Our sample includes only the 125 reform municipalities to explore variation *within* reform municipalities comparable to our difference-in-differences specifications. 53 of the 125 municipalities were organized in a protest initiative (42.4 %, see Table 4). We estimate probit models and use as the dependent variable a dummy variable that takes on the value one when at least one of the partners of a merged municipality was organized in the protest initiative, and zero otherwise. Control variables are included as described in the difference-in-differences model.[21] We do not use matching weights because only merged municipalities enter the sample.

[Table 4 about here]

The results in Table 4 show that municipalities with a larger number of clubs are more likely to be organized in the official protest initiative. Our estimates of the marginal effects show, for example, that the probability of being organized in a protest initiative

[21] Consistent with our event studies, we use controls as of 2008, the year of the last election before discussions about the reform started.

increases by around $0.023 \times 5 = 12$ percentage points when the number of clubs increases by one standard deviation (5 clubs per 1,000 capita). This effect is numerically large and corroborates our results based on the difference-in-differences models when using the far-right populist party vote shares as the dependent variable. In a similar vein, the marginal effect of the internet speed variable proxying social media lacks statistical significance in columns (3) and (4). These results consistently suggest that clubs intensity protests and there is no evidence that social media drives protests as well. Effects are robust when we include both social cohesion and social media variables simultaneously (see, column (1) in Table A4 in the Online Appendix).

4.3 Micro-data evidence

As a third measure for protest, we use information about individual protest actions from the EVS. Microdata allow to examine in more detail whether individual club membership or social media usage drive protest and to rule out ecological fallacies. Ideally, we would like to use micro data on citizens' individual voting behavior and support for protest initiatives. This information should be available as a panel observing the very same citizens before and after the municipal mergers including the residence of the respondents. There is, however, no such ideal data set but the EVS provides information about citizens' club membership, social media usage, and protest activities. We use the 2018 wave of the EVS; this data was compiled after the 2015 economic reform. Respondents are not geolocated but the dataset includes information about town size categories. We proxy reform exposure by focusing on respondents from municipalities of a town size involved in the merger reform. Small municipalities were by far more likely to be merged in the course of the economic reform than large municipalities, even if not all small municipalities were merged. The outcome variable measures protest activity and assumes the value one when a respondent has ever signed a petition, or participated in a boycott, in a demonstration, or in a strike (protest action).

The results in Table 5, columns (1), (3) and (4), suggest that club membership comes with a significantly higher probability for protest activities. Citizens in reform municipalities who are members in clubs were around 70 percentage points more likely to have participated

in any protest activity than citizens who are not club members. This effect is statistically significant at the 1% level and substantial given the average protest probability of 58.2%. We control for gender, age, foreign nationality, education, and town size. By contrast, being a social media user (respondent uses social media more than once a week for political information) does, however, not turn out to be correlated with being active in protest activities. The parameter estimate of social media usage lacks statistical significance in columns (2) to (5) and the point estimate is negative.

[Table 5 about here]

Similar to Figure A5, we also have more fine-grained data on the individual clubs at hand. Being a sports club and a charity club member does not correlate with protest activities. Being a member of real-life clubs like village, folklore, or dialect clubs, aggregated in 'other clubs' in Table 5) is positively correlated with being active in protest activities (column 5). Again, we find that clubs with a less political and a more bridging spirit like sports clubs and a charity club do hardly intensify protests.

5 Other channels

We have shown that local social cohesion increases protests in reform municipalities after the reform, but not before, and social media does not seem to play a role. However, many other channels can influence our results. Most importantly, one may well argue that local identity or the desire to meet other people affect both membership in cultural oriented clubs and protests against a reform which threatens local autonomy. Second, political parties and their local branches, especially the far-right FPÖ, may infiltrate the clubs or intensify local protest. A third threat to our identification would be if municipalities with low or high levels of social cohesion had voluntarily entered the reform group. Fourth, if the reform aims at decreasing public expenditures, fiscal consolidation may provoke resistance. The following sections show that we can rule out that those channels drive the results.

5.1 Local identity

Membership in civic organizations such as clubs may mirror attachment or just mirror citizens' local identity or the desire to meet other people. Citizens who feel closely aligned with their home municipality may express stronger protest than citizens who do not feel closely aligned with their home municipality. To disentangle social cohesion (club membership) from local attachment, we include indirect and direct measures of local identity in all our previous models testing whether our measures for social capital survives.

First, we consider protest voting. Measuring local identity at the municipality level is challenging. We therefore include two proxies for local attachment: the number of local memorials and museums (per 1,000 capita). Table A2 in the Online Appendix amend the analyses for protest voting and protest initiatives by triple interactions of the same type we use for social cohesion and social media. The local number of memorials is negatively correlated with protests, museums are positively correlated (none effect is statistically significant at the 10% level). Thus, including measures for local identity does not change the inferences regarding clubs and internet speed when investigating protest voting.

Second, we examine municipalities' activities in the protest initiative and also include the number of memorials and museums (Table A4 in the Online Appendix). Doing so does not change the inferences that the number of clubs in a municipality predict a municipality's activity in a protest initiative. There is no evidence that internet speed does so as well. Again, none of the measures for local identity is statistically significant at the 10% level.

Third, we investigate whether local identity and trust in neighbors correlate with being active in protest activities in the EVS microdata and whether including local identity and trust in neighbors affects the correlation between club membership, social media usage and protest activities:[22] it does not (column 4 in Table 5). All inferences regarding social cohesion and social media are robust after controlling for the number of local memorials and museums.

[22]We compute a dummy variable measuring a high level of local identity. The variables takes on the value of one if a respondent reports feels very strongly attached to the home town in the 2018 wave.

5.2 Hotels and pubs

Membership in civic organizations may just mirror citizens' desire to meet other people. We disentangle club membership from the desire to meet other people by including the number of hotels and pubs in a municipality. It is conceivable that citizens in clubs (especially folklore, village and dialect clubs) are more likely to discuss economic policy reforms than citizens just visiting a hotel or pub. Clearly, members of folklore, village and dialect clubs may regularly meet in pubs or hotels and have agreements with the owners of pubs and hotels who reserve rooms/tables for the club members to meet. By including both the number of hotels and pubs (per 1,000 capita) where citizens have a chance to meet and the number of clubs, we disentangle the effects of clubs from the pure presence of pubs and hotels.

The correlation between hotels and pubs and protest voting lacks statistical significance and including the number of hotels and pubs does not change the inferences regarding clubs and internet speed when investigating protest voting (columns 2 and 5 in Table A2). Considering the number of hotels and pubs in our models using municipalities' activities in the protest initiative does also not change the inferences regarding offline and online networks.

5.3 Party infiltration

A major question is whether the number of clubs triggers protest against the reform because citizens meet in clubs to overcome the collective action problem and discuss issues attached to the reform or simply got infiltrated by political parties opposing the reform. Political parties may well be closely attached with individual clubs. Parties such as the populist right-wing FPÖ may hence use their influence within clubs to infiltrate the club members against the reform. We observe the number of political party branches in the individual municipalities.

When examining protest voting, we include the triple interaction term ($Reform \times After \times$ *Far-right populist branch*) to disentangle the effects of clubs from local party infiltration. The triple interaction term lacks statistical significance and including it does not change

the inferences regarding the positive effect of clubs on protest voting (see Table A2). The triple interaction effect ($Reform \times After \times Internet$) remains negative and is statistically significant at the 10% level.

We also include the number of far-right populist party branches when investigating municipalities' activities in the protest initiative. The results in Table A2 show that the number of far-right populist party branches does not predict municipalities' activities in the protest initiative and including it does not change the references regarding the role of clubs and the internet on municipalities' activities in the protest initiative.

5.4 Reform heterogeneity

Municipalities were partly able to self-select into the economic reform; this decision might be correlated with social capital. Some 68 out of 125 newly created municipalities implemented the reforms voluntarily, the remainder was forced to merge (see section 2). The reform also involved between 2 and 10 municipalities to be merged, the number of partners may also depend on local social capital. One may argue, for example, that municipalities with many clubs are more open to cooperation and to join forces in new municipalities. In this case, unobservable trends may drive both the willingness to reform and social capital, we may obtain biased estimates.

We can address this concern for the protest voting sample and exploit the heterogeneity within our data. The results in Table A5 in the Online Appendix show very similar protest voting effects in voluntarily and forced merger municipalities (columns 1). The mode of the merger reform does not seem to matter to political protest at the ballot box. Effects for mergers of two partners are somewhat smaller than effects for mergers involving three and more municipalities (column 2). However, interactions with the number of clubs and internet speed are similar in both municipality subsamples. We conclude that self-selection into the reform as a result of local social cohesion and social media is not an issue.

5.5 Fiscal consolidation

The merger reform was implemented to exploit economies of scale. In particular, public expenditures and public debt were intended to be decreased. One may therefore worry that citizens' disenchantment as a result of budget cuts drives the results. We examine public finances in event studies, Figure A7 reports the results. Our results do not suggest that merging municipalities influenced per capita expenditure, local tax revenues, or debt in the first six years after the reform. The only major exception is the year prior to the merger reform (2014) when local governments to be merged *increased* expenditures significantly. This common pool effect has been described by many previous studies (see, for example, Tyrefors Hinnerich, 2009). Our results corroborate previous studies which continuously failed to show significant economies of scale after local government merger reforms (e.g., Lassen and Serritzlew, 2011; Blom-Hansen *et al.*, 2014; Blesse and Baskaran, 2016; Roesel, 2017). We conclude that direct reform effects are unlikely to drive our results because fiscal policies do not change after the reform.

6 Conclusion

We have shown that offline face-to-face networks are not dead at all even if social media is trending. Protests against an economic reform spread more in places with many local clubs but is not different in places with many social media users. Our results show for an established democracy with active and strong civic organizations that real-life social cohesion spurs non-violent protests but social media does not play a big role. This finding complements previous studies showing that social media such as Facebook and Twitter clearly helps citizens to express their views, coordinate demonstrations and overcome the collective action problem in countries which have not enjoyed democratic institutions for a long time and where civil societies are weak (Acemoglu *et al.*, 2018; Enikolopov *et al.*, 2020). Apparently, social media is less important for protests if real-life social cohesion and networks are pronounced. This finding may explain why empirical studies find both evidence for and against the hypothesis that internet and social media are a *mirror* rather than a *driver* of increased political polarization and populism in Western democracies

(Prior, 2013; Boxell *et al.*, 2017; Bail *et al.*, 2018; Boulianne *et al.*, 2020; Müller and Schwarz, 2021).

Our results also suggest that only individual types of real-life networks multiply protest against economic reforms—not every bond matters. Protest against a reform targeting local autonomy spreads among members of clubs that are promoting local identity—village, folklore, or dialect clubs, for example. We do not find such an echo chamber effect for politically uncommitted clubs like sports clubs or charity clubs which promote pro-social behavior. Thus, the emotional predisposition of members of group identity clubs—literally a 'home-bias' in our case—reinforced scepticism towards the reform. This is in line with the motivated skepticism theory by Taber and Lodge (2006) as a key trigger of group polarization (Sunstein, 2002). Thus, policy makers are well advised to consider multipliers in real-life local networks and the pre-political space (e.g., clubs or churches) when proposing economic reforms. Institutions and representatives of the civil society may well organize resistance against reforms, but they may equally have the power to increase support for economic reforms.

References

Acemoglu, D., Hassan, T. and Tahoun, A. (2018). The power of the street: evidence from Egypt's Arab Spring. *Review of Financial Economics*, **31**, 1–42.

Aidt, T. and Leon-Ablan, G. (2022). The interaction of structural factors and diffusion in social unrest: Evidence from the Swing riots. *British Journal of Political Science*, **52** (2), 869–885.

—, — and Satchell, M. (2022). The social dynamics of collective action: Evidence from the diffusion of the Swing riots, 1830–1831. *Journal of Politics*, **84** (1), 209–225.

Aidt, T. S. and Franck, R. (2015). Democratization under the threat of revolution: Evidence from the Great Reform Act of 1832. *Econometrica*, **83** (2), 505–547.

Alesina, A., Favero, C. and Giavazzi, F. (2019). *Austerity*. Princeton: Princeton University Press.

Alesina, A. F., Furceri, D., Ostry, J. D., Papageorgiou, C. and Quinn, D. P. (2020). *Structural reforms and elections: Evidence from a world-wide new dataset*. NBER Working Paper 26720, NBER.

Andrews, K. T. and Biggs, M. (2006). The dynamics of protest diffusion: Movement organizations, social networks, and news media in the 1960 sit-ins. *American Sociological Review*, **71** (5), 752–777.

Autor, D., Dorn, D., Hanson, G. and Majlesi, K. (2020). Importing political polarization? the electoral consequences of rising trade exposure. *American Economic Review*, **110** (10), 3139–83.

Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. B. F., Lee, J., Mann, M., Merhout, F. and Volfovsky, A. (2018). Exposure to opposing views on social media can increase political polarization. *PNAS*, **115** (37), 9216–9221.

Becker, S. O., Fetzer, T. and Novy, D. (2017). Who voted for Brexit? A comprehensive district-level analysis. *Economic Policy*, **32** (92), 601–650.

Bekaert, G., Harvey, C. R. and Lundblad, C. (2005). Does financial liberalization spur growth? *Journal of Financial Economics*, **77** (1), 3–55.

Berggren, N. (1999). Economic freedom and equality: Friends or foes? *Public Choice*, **100** (3-4), 203–223.

Bjørnskov, C. and Sønderskov, K. M. (2013). Is social capital a good concept? *Social Indicators Research*, **114** (3), 1225–1242.

Bjørnskov, C. (2006). The multiple facets of social capital. *European Journal of Political Economy*, **22** (1), 22–40.

Blesse, S. and Baskaran, T. (2016). Do municipal mergers reduce costs? Evidence from a German federal state. *Regional Science and Urban Economics*, **59**, 54–74.

Blom-Hansen, J., Houlberg, K. and Serritzlew, S. (2014). Size, democracy, and the economic costs of running the political system. *American Journal of Political Science*, **58** (4), 790–803.

Boeri, T., Mishra, P., Papageorgiou, C. and Spilimbergo, A. (2021). Populism and civil society. *Economica*, **88** (352), 863–895.

Boulianne, S., Koc-Michalska, K. and Bimber, B. (2020). Right-wing populism, social media and echo chambers in western democracies. *New Media & Society*, **22** (4), 683–699.

Boxell, L., Gentzkow, M. and Shapiro, J. M. (2017). Greater internet use is not associated with faster growth in political polarization among us demographic groups. *Proceedings of the National Academy of Sciences*, **114** (40), 10612–10617.

Boyer, P., Delemotte, T., Gauthier, G., Rollet, V. and Schmutz, B. (2020). *The Gilets jaunes: offline and online*. CEPR Discussion Papers 14780, CEPR.

Bursztyn, L., Cantoni, D., Yang, D. Y., Yuchtman, N. and Zhang, Y. J. (2021). Persistent political engagement: Social interactions and the dynamics of protest movements. *American Economic Review: Insights*, **3** (2), 233–250.

Buti, M., Turrini, A., Van den Noord, P. and Biroli, P. (2014). Reforms and re-elections in OECD countries. *Economic Policy*, **25** (61), 61–116.

Campante, F., Durante, R. and Sobbrio, F. (2018). Politics 2.0: the multifaceted effect of broadband internet on political particpatoin. *Journal of the European Economic Association*, **16**, 1094–1136.

Campos, N., Eichenauer, V. and Sturm, J.-E. (2020). Close encounters of the european kind: Economic integration, sectoral heterogeneity and structural reforms. *European Economic Review*, **1** (2-3), 103511.

Carmody, D., Mazzarello, M., Santi, P., Harris, T., Lehmann, S., Abbiasov, T., Dunbar, R. and Ratti, C. (2022). The effect of co-location on human communication networks. *Nature Computational Science*, **2** (8), 494–503.

Cette, G., Fernald, J. and Mojon, B. (2016). The pre-great recession slowdown in productivity. *European Economic Review*, **88** (C), 3–20.

De Haan, J. and Sturm, J.-E. (2017). Finance and income inequality: A review and new evidence. *European Journal of Political Economy*, **50** (C), 171–195.

Dippel, C., Gold, R., Heblich, S. and Pinto, R. (2022). The effect of trade on workers and voters. *Economic Journal*, **132** (641), 199–217.

Donati, D. (2020). Mobile internet access and political outcomes: Evidence from South Africa. *Working Paper*, **31**, 1–42.

Dustmann, C., Vasiljeva, K. and Damm, A. P. (2019). Refugee migration and electoral outcomes. *Review of Economic Studies*, **86** (5), 2035–2091.

Edo, A., Giesing, Y., Öztunc, J. and Poutvaara, P. (2019). Immigration and electoral support for the far-left and the far-right. *European Economic Review*, **115** (C), 99–143.

Eggertsson, G., Ferrero, A. and Raffo, A. (2014). Can structural reforms help Europe? *Journal of Monetary Economics*, **61** (C), 2–22.

Enikolopov, R., Makarin, A. and Petrova, M. (2020). Social media and protest participation: Evidence from Russia. *Econometrica*, **88** (4), 1479–1514.

Falck, O., Gold, R. and Heblich, S. (2014). E-lections: voting behavior and the internet. *American Economic Review*, **104**, 2238–2265.

Foertsch, M. and Roesel, F. (2022). *Sports Clubs fuel Populism: Quasi-experimental Evidence from German Soccer*. Working paper, ifo Institute.

Funke, M., Schularick, M. and Trebesch, C. (2016). Going to extremes: Politics after financial crises, 1870–2014. *European Economic Review*, **88** (C), 227–260.

Furceri, D., Loungani, P. and Ostry, J. (2019). The aggregate and distributional effects of financial globalization: Evidence from macro and sectoral data. *Journal of Money, Credit and Banking*, **51** (S1), 163–198.

Galofré-Vilà, G., Meissner, C. M., McKee, M. and Stuckler, D. (2021). Austerity and the rise of the Nazi party. *Journal of Economic History*, **81** (1), 81–113.

Gavazza, A., Nardatto, M. and Valetti, T. (2019). Internet and politics: evidence from U.K. local elections and local government policies. *Review of Economic Studies*, **86**, 2092–2135.

Giuliano, P., Mishra, P. and Spilimbergo, A. (2013). Democracy and reforms: Evidence from a new dataset. *American Economic Journal: Macroeconomics*, **5** (4), 179–204.

— and Wacziarg, R. (2020). *Who voted for Trump? Populism and social capital*. NBER Working Papers 27651, NBER.

González, F. (2020). Collective action in networks: Evidence from the Chilean student movement. *Journal of Public Economics*, **188**, 104220.

Gründler, K., Potrafke, N. and Wochner, T. (2020). *Structural reforms and income inequality: Who benefits from market-oriented reforms?* CESifo Working Paper Series 8042, CESifo.

Guriev, S., Melnikov, N. and Zhuravskaya, E. (2021). 3g internet and confidence in government. *Quarterly Journal of Economics*, **136** (4), 2533–2613.

Halla, M., Wagner, A. F. and Zweimüller, J. (2017). Immigration and Voting for the Far Right. *Journal of the European Economic Association*, **15** (6), 1341–1385.

Hardin, E. (1982). *Collective action*. Baltimore, MD: Johns Hopkins University Press.

Heinisch, R., Lehner, T., Mühlböck, A. and Schimpf, C. H. (2018). How do municipal amalgamations affect turnout in local elections? Insights from the 2015

municipal reform in the Austrian state of Styria. *Local Government Studies*, **44** (4), 465–491.

Lassen, D. and Serritzlew, S. (2011). Jurisdiction size and local democracy: Evidence on internal political efficacy from large-scale municipal reform. *American Political Science Review*, **105** (2), 238–258.

Madestam, A., Shoag, D., Veuger, S. and Yanagizawa-Drott, D. (2013). Do political protests matter? Evidence from the Tea Party movement. *Quarterly Journal of Economics*, **128** (4), 1633–1685.

Miner, L. (2015). The unintended consequences of internet diffusion: Evidence from Malaysia. *Journal of Public Economics*, **132**, 66–78.

Mooijman, M., Hoover, J., Lin, Y., Ji, H. and Dehghani, M. (2018). Moralization in social networks and the emergence of violence during protests. *Nature Human Behaviour*, **2** (6), 389–396.

Müller, K. and Schwarz, C. (2021). Fanning the flames of hate: Social media and hate crime. *Journal of the European Economic Association*, **19** (4), 2131–2167.

Norris, P. and Inglehart, R. (2019). *Cultural backlash: Trump, Brexit, and authoritarian populism*. Cambridge: Cambridge University Press.

Ochsner, C. and Roesel, F. (2017). *Activated history – The case of the Turkish Sieges of Vienna*. CESifo Working Paper Series 6586, CESifo.

— and — (2020). Migrating Extremists. *Economic Journal*, **130** (628), 1135–1172.

Olson, M. (1965). *The logic of collective action*. Cambridge, MA: Harvard University Press.

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge, MA: Cambridge University Press.

Otto, A. H. and Steinhardt, M. F. (2014). Immigration and election outcomes – evidence from city districts in Hamburg. *Regional Science and Urban Economics*, **45**, 67–79.

Potrafke, N. and Roesel, F. (2020). Opening hours of polling stations and voter turnout: Evidence from a natural experiment. *Review of International Organizations*, **15** (1), 133–163.

Prati, A., Onorato, M. G. and Papageorgiou, C. (2013). Which reforms work and under what institutional environment? Evidence from a new data set on structural reforms. *Review of Economics and Statistics*, **95** (3), 946–968.

Prior, M. (2013). Media and political polarization. *Annual Review of Political Science*, **16** (1), 101–127.

Putnam, R. D. (2000). *Bowling alone: the collapse and revival of American community*. New York: Simon & Schuster.

Reingewertz, Y. (2012). Do municipal amalgamations work? Evidence from municipalities in Israel. *Journal of Urban Economics*, **72** (2), 240–251.

Roesel, F. (2016). Die politischen Kosten von Gebietsreformen. *ifo Dresden berichtet*, **23**, 21–25.

— (2017). Do mergers of large local governments reduce expenditures? – Evidence from Germany using the synthetic control method. *European Journal of Political Economy*, **50**, 22–36.

Satyanath, S., Voigtländer, N. and Voth, H.-J. (2017). Bowling for fascism: Social capital and the rise of the Nazi party. *Journal of Political Economy*, **125** (2), 478–526.

Schaub, M. and Morisi, D. (2020). Voter mobilisation in the echo chamber: Broadband internet and the rise of populism in Europe. *European Journal of Political Research*, **59** (4), 752–773.

Somma, N. M. (2010). How do voluntary organizations foster protest? The role of organizational involvement on individual protest participation. *Sociological Quarterly*, **51** (3), 384–407.

Steinmayr, A. (2021). Contact versus exposure: Refugee presence and voting for the far-right. *Review of Economics and Statistics*, **103** (2), 310–327.

Stier, S., Posch, L., Bleier, A. and Strohmaier, M. (2017). When populists become popular: comparing Facebook use by the right-wing movement Pegida and German political parties. *Information, Communication & Society*, **20** (9), 1365–1388.

Sunstein, C. R. (2002). The law of group polarization. *Journal of Political Philosophy*, **10** (2), 175–195.

Taber, C. S. and Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, **50** (3), 755–769.

Teurezbacher, F. (2019). Politische Reformen als Auslöser großer Wählerwanderungen: Das Beispiel der Gemeindestrukturreform in der Steiermark 2013-2015. *Austrian Journal of Political Science*, **48** (2), 23–34.

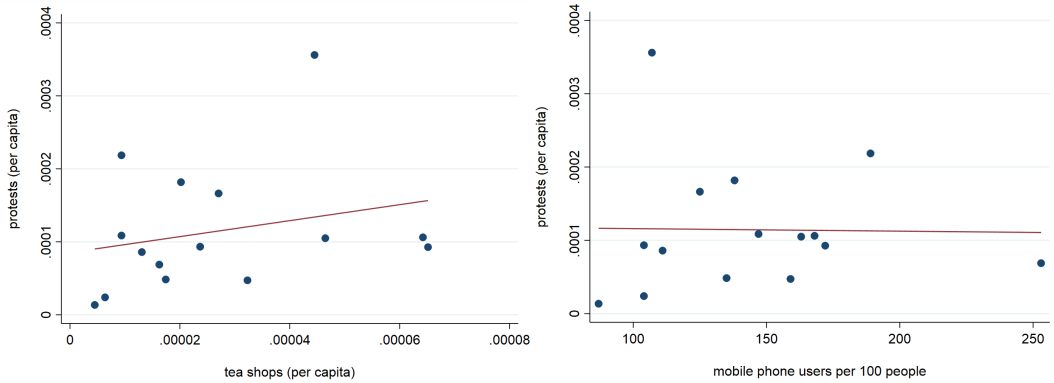
Tyrefors Hinnerich, B. (2009). Do merging local governments free ride on their counterparts when facing boundary reform? *Journal of Public Economics*, **93** (5), 721–728.

Voigtländer, N. and Voth, H.-J. (2012). Persecution perpetuated: The medieval origins of anti-Semitic violence in Nazi Germany. *Quarterly Journal of Economics*, **127** (3), 1339–1392.

Wlattnig, W., Kindermann, M. and Hörmann, H.-J. (2016). *Steiermärkische Gemeindestrukturreform 2015: Ablauf und rechtliche Umsetzung der größten Gebietsreform in der Steiermark seit 1945*. Vienna: Verlag Österreich.

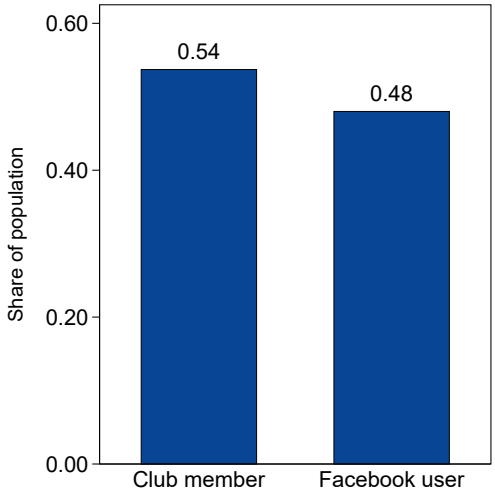
Zhuravskaya, E. and Petrova, R., M. Enikolopov (2020). Political effects of the internet and social media. *Annual Review of Economics*, **12**, 415–438.

Figure 1: Local protest intensity in Myanmar



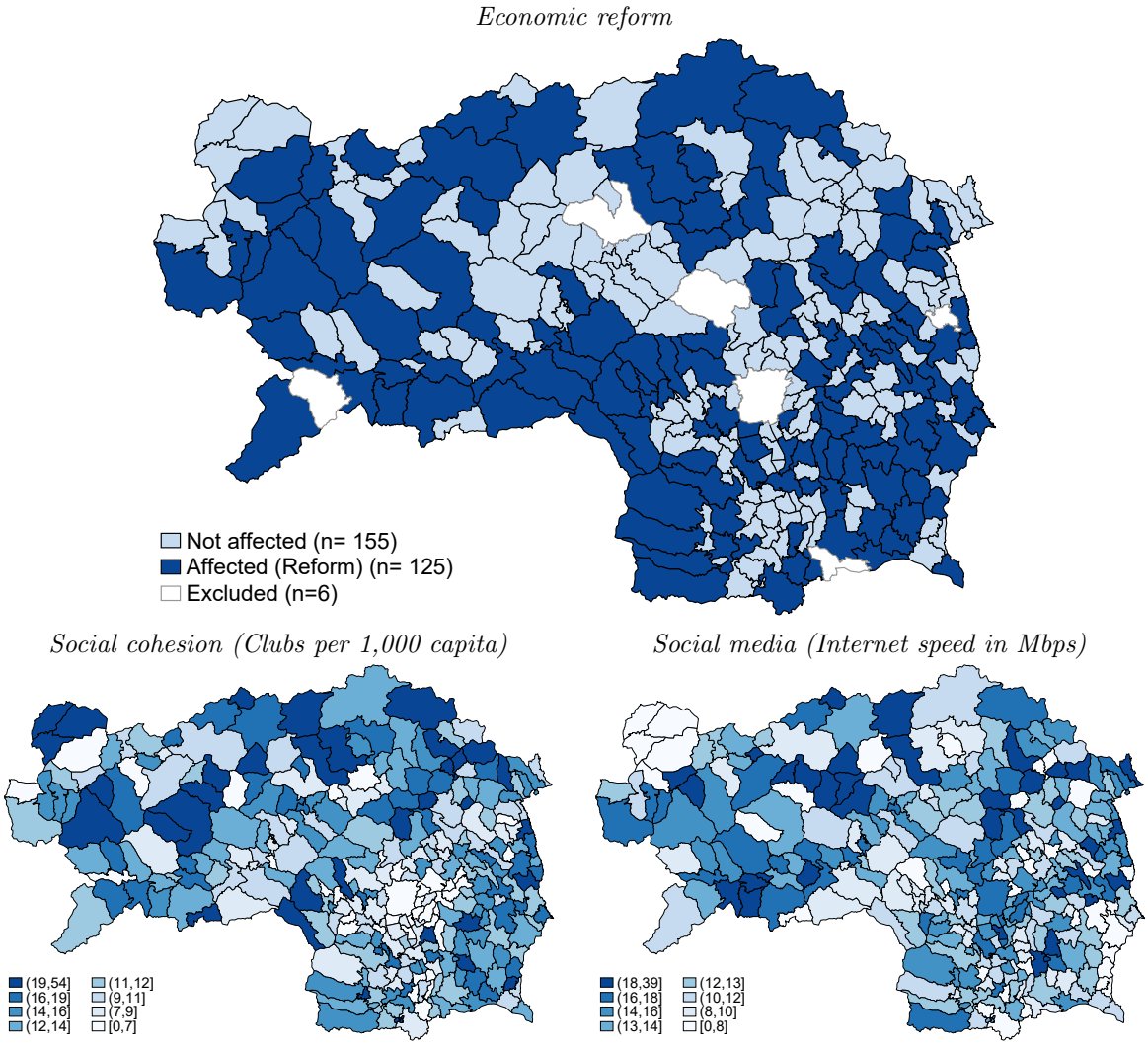
Notes: The figures plot Spring Revolution protests in Myanmar 2021 (protests per capita) against local tea shops (left-hand side) and mobile phone users (right-hand side); the level of observation are 15 regions in Myanmar. Data sources: Myanmar Statistical Information Service: Mobile phone density by states and regions 2019 (`http://mmsis.gov.mm/statHtml/statHtml.do`), ; ACLED Dashboard: Local conflicts in Myanmar (01 February 2021–30 June 2021), `https://acleddata.com/dashboard/#/dashboard`; Tea shops: Openstreetmap; Eleven: Local population in Myanmar (`https://elevenmyanmar.com/news/myanmars-total-population-exceeds-5410-million-on-april-1`).

Figure 2: Social networks in Austria (federal state of Styria)



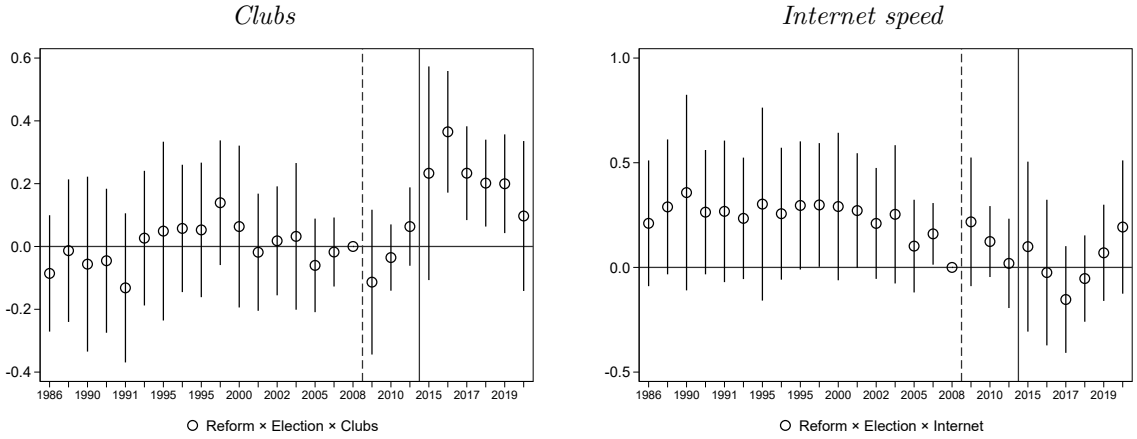
Notes: The figure reports the share of the population being a club member or a daily Facebook user. Data on club membership are from the European Values Study (2018 wave). Data on daily Facebook users in Styria are for 2014 and taken from the newspaper Kleine Zeitung ('Jeder zweite Steirer ist täglich auf Facebook', 11.07.2014, p. 25).

Figure 3: Geography of the Austrian state of Styria



Notes: The top map shows how the 2015 economic reform (municipality mergers) affected individual municipalities in the Austrian state of Styria. 125 dark blue shaded municipalities were newly created from 371 original municipalities, boundaries of another 155 municipalities remain untouched (light blue shaded). We exclude the capital city of Graz and five other municipalities which were either merged before or after the 2015 reform (white shaded). The bottom maps show local social capital, measured in clubs per 1,000 capita in 2018 and 2013–2015 average internet speed rates in Mbps.

Figure 4: Reform effects and social networks



Notes: The figures show the results of event-study OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. The vertical dashed lines show when first discussions about a reform started, the solid vertical line represents the moment when the reform was enacted. The left-hand graph shows the interaction of the reform effect with clubs per 1,000 capita relative to the base year 2008. The right-hand graph shows the interaction of the reform effect with average internet speed (download speed) relative to the base year 2008. We pool 26 local, state, and national elections since 1986. All estimations include controls and municipalities are matched. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Vertical bars indicate 95% confidence intervals (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Table 1: Internet speed predicts social media use

	Facebook follower (2020)		
	(1)	(2)	(3)
Internet (2013-2020)	0.016**	0.016**	0.017***
	(0.007)	(0.006)	(0.006)
Clubs (2018)		0.005	0.000
		(0.005)	(0.004)
Controls	No	No	Yes
Mean dep. var.	0.220	0.220	0.220
Municipalities	280	280	280
Obs.	280	280	280
R^2	0.046	0.054	0.080

Notes: The table shows the results of cross-section OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use the followers of the official local government Facebook site (December 2020) in % of the local population as the dependent variable. The main explanatory variables are 2013-2020 average internet speed (download speed) in columns (1) to (3) and local clubs per 1,000 capita in 2018 in columns (2) and (3). Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Significance levels (robust standard errors): *** 0.01, ** 0.05, * 0.1.

Table 2: Descriptive statistics

	Obs	*Mean*	*Std. Dev.*	*Min*	*Max*
	(1)	(2)	(3)	(4)	(5)
Protest					
Far-right populist vote share	7,280	14.826	9.184	0	46.602
Protest initiative	280	0.293	0.456	0	1
Economic reform					
Reform	7,280	0.446	0.497	0	1
After	7,280	0.231	0.421	0	1
Reform × After	7,280	0.103	0.304	0	1
Social cohesion (Clubs per 1,000 capita)					
(All) Clubs	280	13.137	6.714	0	54.212
Sports clubs	280	2.968	1.589	0	9.804
Charity clubs	280	1.335	1.080	0	10.776
Other clubs	280	8.834	5.422	0	45.038
Social media (Internet speed in Mbps)					
Download speed	280	13.132	4.819	0.185	38.696
Upload speed	280	5.157	2.349	0.097	19.654
Download speed (mobile)	280	15.348	5.956	0.185	41.372
Upload speed (mobile)	280	6.291	2.890	0.097	20.469
Download speed (fixed-line)	275	8.764	3.518	2.265	18.975
Upload speed (fixed-line)	275	2.916	1.837	0.332	10.049
Controls					
Population (log)	7,280	7.831	0.689	5.961	10.324
Population share female	7,280	50.593	1.193	45.739	54.265
Population share foreigners	7,280	3.095	2.638	0	21.571
Population share $<$ 15 years	7,280	16.634	3.186	7.021	26.743
Population share $>$ 75 years	7,280	7.802	2.566	3.040	24.015
Matching variables					
Total population	280	3,293	3,105	526	26,455
Share of settlement area	280	47.079	23.196	2.063	87.744
Minimum altitude	280	454	181	197	970
Maximum altitude	280	1,205	745	223	2,933

Notes: The table shows the descriptive statistics of our baseline dataset. We observe 280 municipalities in the Austrian state of Styria over a maximum timespan of 34 years (1986 to 2020). Far-right votes are votes for the populist Freedom Party of Austria (FPÖ). Social capital refers to clubs per 1,000 in 2018. Internet speed are 2013-2015 averages from local speed test data. The economic reform (municipality mergers) was in 2015.

Table 3: Protest voting

	Far-right populist vote share					
	Reform effects		*Reform effects by social network density*			
			Social cohesion		*Social media*	
	(1)	(2)	(3)	(4)	(5)	(6)
Reform × After	1.550***	1.319**				
	(0.470)	(0.549)				
Reform × After × Clubs			0.186***	0.226***		
			(0.069)	(0.079)		
Reform × After × Internet					-0.217*	-0.198
					(0.123)	(0.132)
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Election fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes
Matching	No	Yes	No	Yes	No	Yes
Mean dep. var.	14.826	14.971	14.826	14.971	14.826	14.971
Municipalities	280	263	280	263	280	263
Obs.	7280	6838	7280	6838	7280	6838
Within R^2	0.815	0.828	0.817	0.830	0.816	0.829

Notes: The table shows the results of difference-in-differences OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. We interact the difference-in-differences estimate with the number of local clubs per 1,000 capita in columns (3) and (4) and average internet speed (download speed) in columns (5) and (6). We pool 26 local, state, and national elections since 1986. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Significance levels (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Table 4: Anti-reform protest initiative

	Protest initiative = 1			
	Social cohesion		*Social media*	
	(1)	(2)	(3)	(4)
Clubs	0.017**	0.023**		
	(0.008)	(0.010)		
Internet			0.014	0.019
			(0.011)	(0.012)
Controls	No	Yes	No	Yes
Mean dep. var.	0.424	0.424	0.424	0.424
Municipalities	125	125	125	125
Obs.	125	125	125	125
Pseudo R^2	0.022	0.087	0.009	0.069

Notes: The table shows marginal effects derived from cross-section probit estimations. 125 municipalities which were newly created after merger reform in 2015 in the Austrian state of Styria are the unit of observation. A dummy variable measuring the presence of a local protest initiative (*'Steirische Gemeindeinitiative'*) is the dependent variable. The main explanatory variable is the local clubs per 1,000 capita in columns (1) and (2) and average internet speed (download speed) in columns (3) and (4). Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Significance levels (robust standard errors): *** 0.01, ** 0.05, * 0.1.

Table 5: Protest actions (micro-data)

	Protest action = 1				
	Styria				
	(1)	(2)	(3)	(4)	(5)
Club member	0.681***		0.676***	0.712***	
	(0.246)		(0.247)	(0.262)	
Social media user		-0.027	0.013	-0.024	-0.063
		(0.267)	(0.281)	(0.276)	(0.268)
Local identity				-0.090	-0.015
				(0.242)	(0.239)
Trust in neighbors				-0.318	-0.200
				(0.440)	(0.428)
Sports club member					-0.413
					(0.310)
Charity club member					0.361
					(0.298)
Other club member					0.542**
					(0.231)
Controls	Yes	Yes	Yes	Yes	Yes
Sample weights	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	0.621	0.620	0.620	0.624	0.624
Mean club member	0.573	0.571	0.571	0.575	0.575
Mean social media user	0.263	0.263	0.263	0.265	0.265
Year	2018	2018	2018	2018	2018
Obs.	184	183	183	182	182
Pseudo R^2	0.137	0.096	0.137	0.138	0.139

Notes: The table shows marginal effects derived from probit estimations. Respondents interviewed for the 2017/2018 wave of the European Values Study (EVS) in the Austrian state of Styria are the unit of observation. Respondents live in tows of maximum size of 100,000. The dependent variable takes on the value of one if the respondent has ever signed a petition or participated in a boycott, in a demonstration, or in a strike (protest action), and zero otherwise. The explanatory variables of interest are dummy variables measuring membership of the respondent in clubs, social media users and high local identity as well as high trust in neighbors. Controls are gender, age, foreign nationality, education, and town size. We use the EVS sample weights. Significance levels (robust standard errors): *** 0.01, ** 0.05, * 0.1.

A1 Supplementary figures and tables

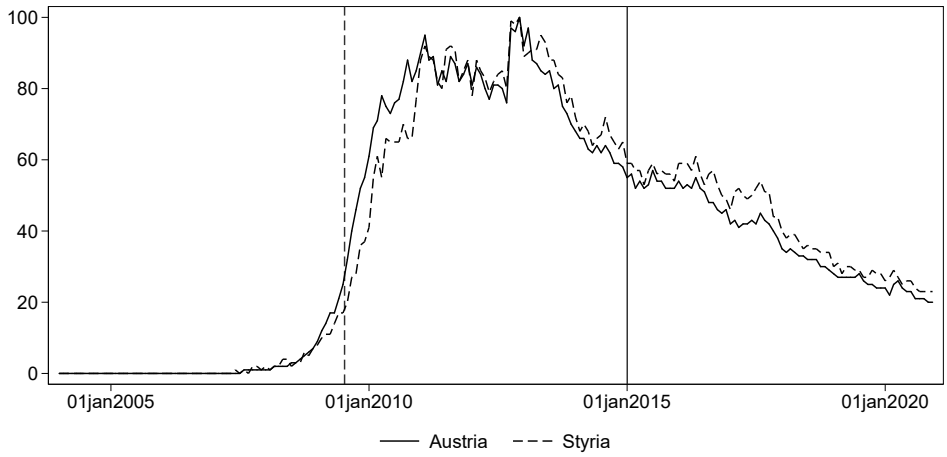
Online appendix for online publication only.

Figure A1: Protest campaigns

'Steirische Gemeindeinitiative' Far-right populist FPÖ

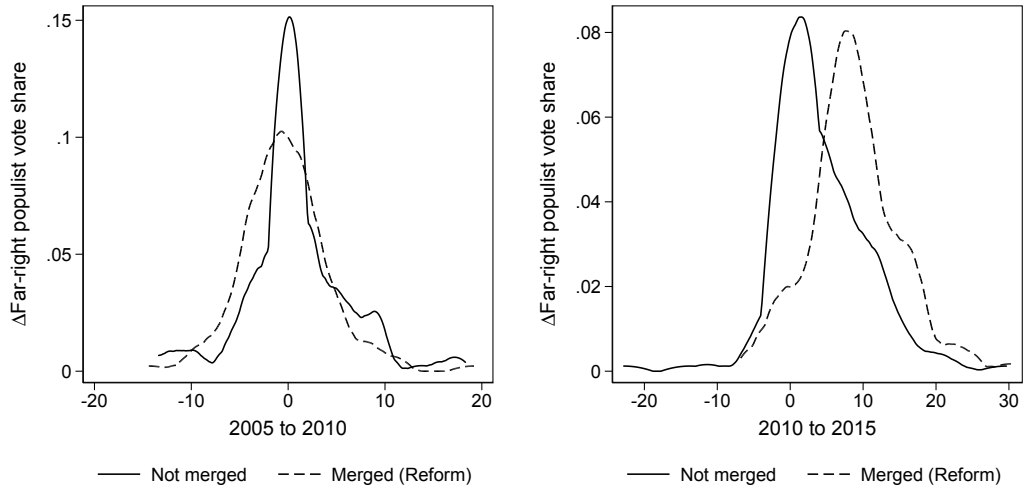
Notes: The photos show the protest campaigns by the *'Steirische Gemeindeinitiative'* and the far-right populist FPÖ. The upper-left photo shows a poster stating 'No vote for the deniers of democracy SPÖ and ÖVP' (Source: ORF.at, 28.08.2013, `https://steiermark.orf.at/v2/news/stories/2600452/`). The bottom-left photo shows town signs used during protests against the reform (Source: ORF.at, 26.09.2014, `https://steiermark.orf.at/v2/news/stories/2670641/`). The poster on the right side is from the FPÖ campaign against the merger reform and states 'No to forced mergers' (Source: FPÖ Kapfenberg via Facebook, `https://www.facebook.com/fpoekapfenberg/photos/a.537126522970178/784912244858270`).

Figure A2: Google Trends for 'Facebook'



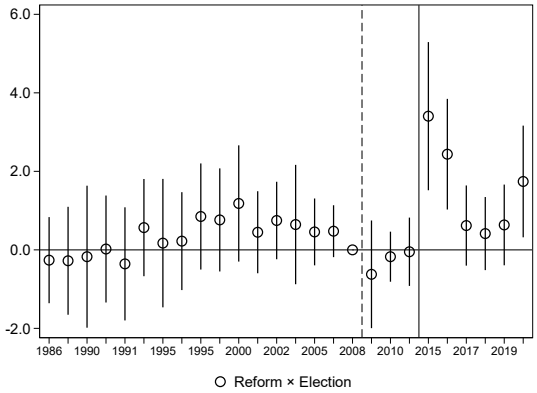
Notes: The figures shows Google Trends analytics for 'Facebook' in Austria (solid line) and Styria (dashed line) between January 2004 and December 2020. 100 refers to the month with the highest number of search hits. The vertical dashed lines show when first discussions about the economic reform started, the solid vertical line represents the moment when the reform was enacted.

Figure A3: Density plots



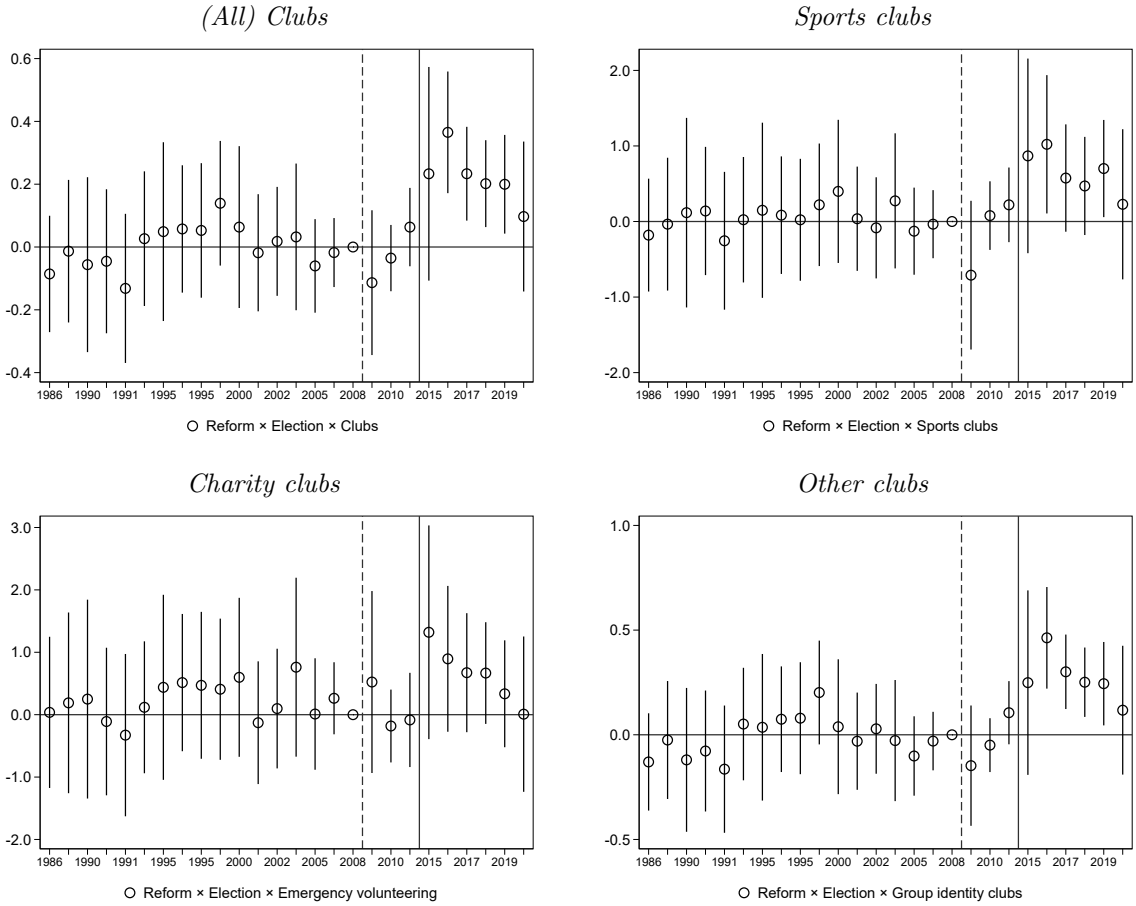
Notes: The figures show kernel density plots of changes in far-right vote shares (votes casted for the FPÖ) in local elections. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015 and labeled as *Merged (Reform)* (dashed line). Unmerged municipalities are the control group (solid lines). The left-hand graphs plots the changes from the 2005 to 2010 local election (before the reform), the right-hand graph changes from 2010 to 2015 (after the reform).

Figure A4: Event study for reform effects



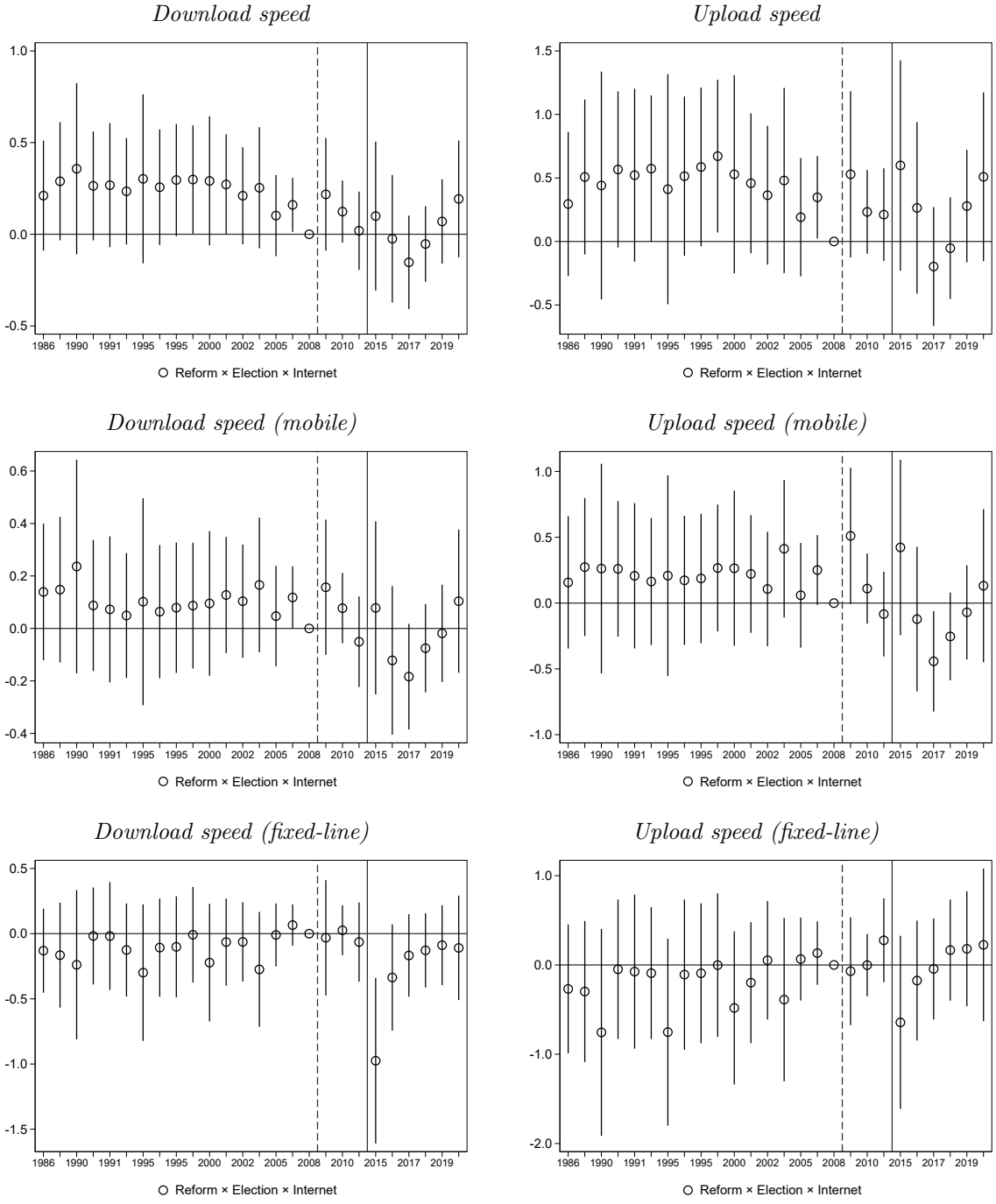
Notes: The figures show the results of an event-study OLS estimation. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. The vertical dashed lines show when first discussions about a reform started, the solid vertical line represents the moment when the reform was enacted. The graph plots reform effects relative to the base year 2008. We pool 26 local, state, and national elections since 1986. All estimations include controls and municipalities are matched. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Vertical bars indicate 95% confidence intervals (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Figure A5: Event studies for reform effects and types of clubs



Notes: The figures show the results of event-study OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. The vertical dashed lines show when first discussions about a reform started, the solid vertical line represents the moment when the reform was enacted. The graphs show the interaction of the reform effect with clubs per 1,000 capita (all clubs, sports clubs, charity clubs, other clubs) relative to the base year 2008. We pool 26 local, state, and national elections since 1986. All estimations include controls and municipalities are matched. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Vertical bars indicate 95% confidence intervals (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Figure A6: Event studies for reform effects and types of internet speed



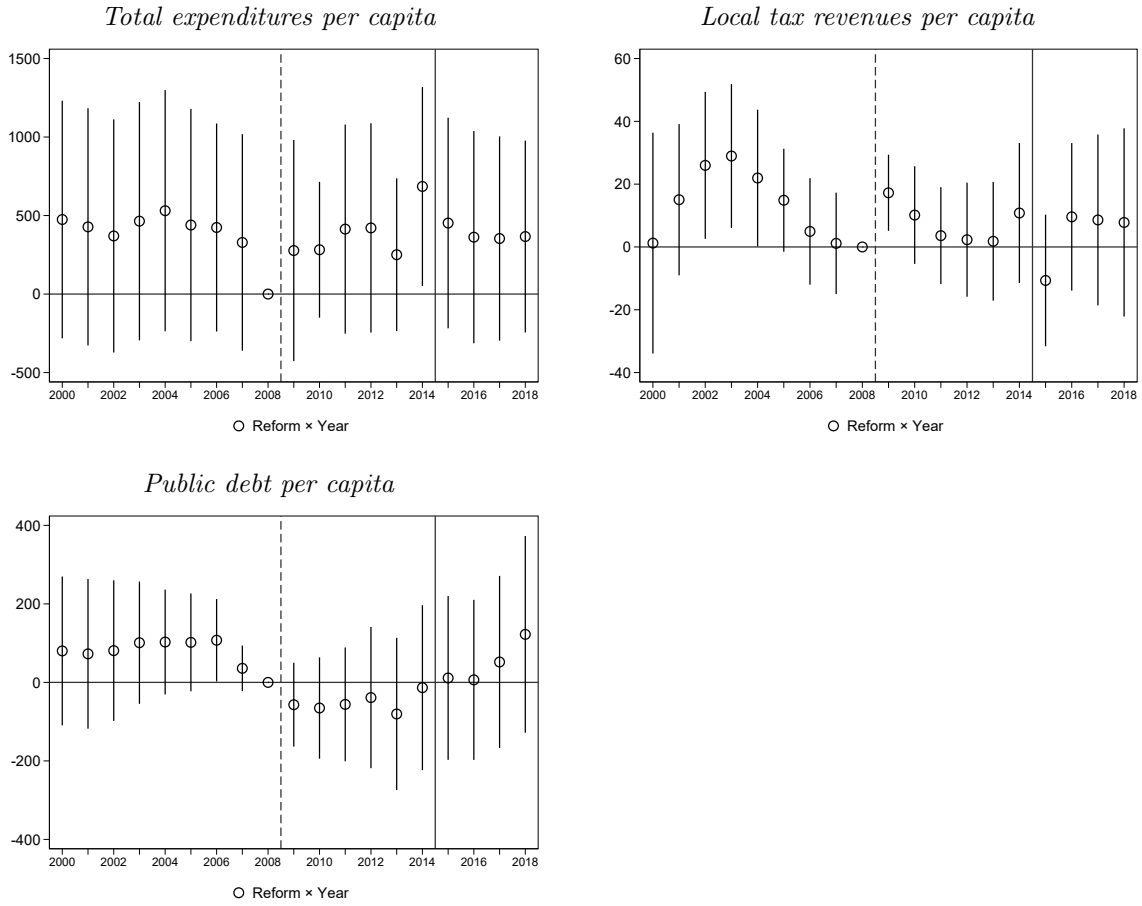
Notes: The figures show the results of event-study OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. The vertical dashed lines show when first discussions about a reform started, the solid vertical line represents the moment when the reform was enacted. The graphs show the interaction of the reform effect with average internet speed (download speed, upload speed, mobile download speed, fixed-line download speed) relative to the base year 2008. We pool 26 local, state, and national elections since 1986. All estimations include controls and municipalities are matched. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Vertical bars indicate 95% confidence intervals (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Table A1: Balancing before and after matching

	Before matching			*After matching*		
	Not affected	*Affected (Reform)*	*p-value Difference*	*Not affected*	*Affected (Reform)*	*p-value Difference*
	(1)	(2)	(3)	(4)	(5)	(6)
Protest						
Far-right populist vote share (before reform)	12.979	13.575	0.006	13.227	13.511	0.278
Protest initiative	0.187	0.424	0.000	0.134	0.429	0.000
Social cohesion (Clubs per 1000 capita)						
(All) Clubs	13.296	12.940	0.646	11.985	13.180	0.173
Sports clubs	2.752	3.235	0.009	2.688	3.303	0.003
Charity clubs	1.310	1.367	0.647	1.183	1.412	0.108
Other clubs	9.234	8.338	0.151	8.114	8.465	0.611
Social media (Internet speed in Mbps)						
Download speed	12.869	13.459	0.291	12.958	13.549	0.337
Upload speed	5.078	5.256	0.513	5.207	5.323	0.717
Download speed (mobile)	15.271	15.443	0.804	14.780	15.669	0.210
Upload speed (mobile)	6.254	6.336	0.806	6.176	6.448	0.461
Download speed (fixed-line)	8.533	9.042	0.230	8.891	8.752	0.774
Upload speed (fixed-line)	2.855	2.989	0.544	2.952	2.892	0.807
Controls						
Population (log)	7.547	8.181	0.000	7.920	8.083	0.145
Population share female	50.179	50.376	0.139	50.595	50.287	0.133
Population share foreigners	5.169	5.782	0.154	6.279	5.387	0.109
Population share $<$ 15 years	13.826	13.503	0.120	13.471	13.563	0.755
Population share $>$ 75 years	10.772	10.816	0.872	11.183	10.817	0.423
Matching variables						
Total population	2,342.538	4,470.727	0.000	3,806.661	3,959.478	0.835
Share of settlement area	48.173	45.723	0.378	46.293	46.323	0.993
Minimum altitude	458.454	448.952	0.664	454.898	449.797	0.836
Maximum altitude	1,136.150	1,290.632	0.087	1,290.027	1,245.841	0.682

Notes: The table shows the balancing of our dataset before and after matching. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We match over population density, share of settlement area, minimum altitude, and maximum altitude. All variables are for 2018, far-right populist vote shares refer to all elections before the reform. Columns (3) and (4) show p-values from t-tests.

Figure A7: Effects on local public finance



Notes: The figures show the results of event-study OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use total expenditures per capita (Euro 2,110 on average), local tax revenues per capita (Euro 288 on average), and public debt per capita (Euro 1,617 on average) as the dependent variables. The vertical dashed lines show when first discussions about a reform started, the solid vertical line represents the moment when the reform was enacted. All estimations include controls and municipalities are matched. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Vertical bars indicate 95% confidence intervals (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Table A2: Other mechanisms and protest voting

	Far-right populist vote share				
	(1)	(2)	(3)	(4)	(5)
Reform × After × Clubs	0.246***	0.221***	0.270***	0.249***	0.230***
	(0.079)	(0.084)	(0.080)	(0.078)	(0.082)
Reform × After × Internet	-0.244*	-0.260**	-0.233*	-0.238*	-0.243**
	(0.128)	(0.123)	(0.123)	(0.128)	(0.119)
Local identity					
Reform × After × Memorials		-0.183			-0.153
		(0.122)			(0.130)
Reform × After × Museums		0.706			0.314
		(1.108)			(1.074)
Pubs					
Reform × After × Hotels and pubs			-2.509		7.288
			(10.385)		(11.940)
Party infiltration					
Reform × After × Far-right populist branch				-1.476	-1.046
				(1.061)	(0.984)
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes
Election fixed effects	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Matching	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	14.971	14.971	14.971	14.971	14.971
Municipalities	263	263	263	263	263
Obs.	6838	6838	6838	6838	6838
Within R^2	0.831	0.833	0.834	0.831	0.836

Notes: The table shows the results of difference-in-differences OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. We interact the difference-in-differences estimate with the number of local clubs per 1,000 capita and average internet speed (download speed). We also control for local memorials, museums, and hotels and pubs per 1,000 capita as well as for a pre-existing (2005 and 2010) local far-right populist party branch. We pool 26 local, state, and national elections since 1986. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Significance levels (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Table A3: Interactions of social cohesion and social media

	Far-right populist vote share					
	Social cohesion			*Social media*		
	Low social media	*Medium social media*	*High social media*	*Low social cohesion*	*Medium social cohesion*	*High social cohesion*
	(1)	(2)	(3)	(4)	(5)	(6)
Reform × After × Clubs	0.331**	0.073	0.252*			
	(0.140)	(0.161)	(0.129)			
Reform × After × Internet				-0.343	-0.256	-0.139
				(0.240)	(0.205)	(0.180)
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Election fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Matching	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	14.513	15.252	15.115	15.467	14.748	14.604
Municipalities	90	85	88	91	83	89
Obs.	2340	2210	2288	2366	2158	2314
Within R^2	0.835	0.849	0.829	0.851	0.821	0.824

Notes: The table shows the results of difference-in-differences OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. We interact the difference-in-differences estimate with the number of local clubs per 1,000 capita in columns (1) to (3) and average internet speed (download speed) in columns (4) to (6). We pool 26 local, state, and national elections since 1986. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. The sample of municipalities is split into three groups along the 33% quantile and 66% quantile in average internet speed (download speed) in columns (1) to (3) and in local clubs per 1,000 capita in columns (4) to (6). Significance levels (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Table A4: Other mechanisms and anti-reform protest initiative

	Protest initiative = 1				
	(1)	(2)	(3)	(4)	(5)
Clubs	0.022**	0.023**	0.021**	0.022**	0.022**
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Internet	0.017	0.017	0.018	0.017	0.018
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Local identity					
Memorials		-0.006			-0.007
		(0.013)			(0.013)
Museums		-0.008			-0.028
		(0.124)			(0.123)
Pubs					
Hotels and pubs			0.961		1.143
			(0.963)		(0.992)
Party infiltration					
Far-right populist branch				-0.013	-0.026
				(0.112)	(0.112)
Controls	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	0.424	0.424	0.424	0.424	0.424
Municipalities	125	125	125	125	125
Obs.	125	125	125	125	125
Pseudo R^2	0.100	0.101	0.105	0.100	0.108

Notes: The table shows marginal effects derived from cross-section probit estimations. 125 municipalities which were newly created after merger reform in 2015 in the Austrian state of Styria are the unit of observation. A dummy variable measuring the presence of a local protest initiative (*'Steirische Gemeindeinitiative'*) is the dependent variable. The main explanatory variables are local clubs per 1,000 capita and average internet speed (download speed). We also control for local memorials, museums, and hotels and pubs per 1,000 capita as well as for a pre-existing (2005 and 2010) local far-right populist party branch in column (2). Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Significance levels (robust standard errors): *** 0.01, ** 0.05, * 0.1.

Table A5: Effect heterogeneity

	Far-right populist vote share					
	Reform effects		*Reform effects by social network density*			
			Social cohesion		*Social media*	
	(1)	(2)	(3)	(4)	(5)	(6)
Reform effect						
Voluntary × After	1.229*					
	(0.656)					
Forced × After	1.435**					
	(0.598)					
Two partners × After		0.807				
		(0.652)				
More partners × After		1.970***				
		(0.612)				
Social cohesion						
Voluntary × After × Clubs			0.189*			
			(0.101)			
Forced × After × Clubs			0.280***			
			(0.089)			
Two part. × After × Clubs				0.221**		
				(0.104)		
More part. × After × Clubs				0.232***		
				(0.089)		
Social media						
Voluntary × After × Intern.					-0.293*	
					(0.164)	
Forced × After × Intern.					-0.001	
					(0.152)	
Two part. × After × Intern.						-0.244
						(0.179)
More part. × After × Intern.						-0.102
						(0.167)
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Election fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Matching	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	14.971	14.971	14.971	14.971	14.971	14.971
Municipalities	263	263	263	263	263	263
Obs.	6838	6838	6838	6838	6838	6838
Within R^2	0.828	0.829	0.830	0.830	0.829	0.829

Notes: The table shows the results of difference-in-differences OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use far-right populist vote shares (votes casted for the FPÖ) as the dependent variable. In the center and bottom panel, we interact the difference-in-differences estimate with the number of local clubs per 1,000 capita and average internet speed (download speed). We pool 26 local, state, and national elections since 1986. We distinguish voluntary mergers and forced mergers in columns (1), (3), and (5), and mergers involving two municipalities and mergers involving three and more partners in columns (2), (4), and (6). Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Significance levels (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.

Table A6: Other parties

	Vote shares				*Turnout*
	Opposition		*Government*		
	Far-right populist	*Other opposition*	*Conser-vatives*	*Social Democrats*	
	(1)	(2)	(3)	(4)	(5)
Reform effect					
Reform × After	1.319**	-0.580	-1.955***	1.216	-1.003**
	(0.549)	(0.595)	(0.751)	(0.771)	(0.410)
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes
Election fixed effects	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Matching	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	14.971	9.489	42.567	32.973	79.165
Municipalities	263	263	263	263	263
Obs.	6838	6838	6838	6838	6838
Within R^2	0.828	0.541	0.629	0.493	0.918
Social cohesion					
Reform × After × Clubs	0.226***	-0.040	-0.084	-0.103	-0.050
	(0.079)	(0.083)	(0.130)	(0.167)	(0.055)
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes
Election fixed effects	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Matching	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	14.971	9.489	42.567	32.973	79.165
Municipalities	263	263	263	263	263
Obs.	6838	6838	6838	6838	6838
Within R^2	0.830	0.541	0.630	0.493	0.919
Social media					
Reform × After × Internet	-0.198	0.094	-0.267	0.371**	0.075
	(0.132)	(0.100)	(0.171)	(0.161)	(0.084)
Municipality fixed effects	Yes	Yes	Yes	Yes	Yes
Election fixed effects	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Matching	Yes	Yes	Yes	Yes	Yes
Mean dep. var.	14.971	9.489	42.567	32.973	79.165
Municipalities	263	263	263	263	263
Obs.	6838	6838	6838	6838	6838
Within R^2	0.829	0.541	0.629	0.495	0.919

Notes: The table shows the results of difference-in-differences OLS estimations. 280 municipalities in the Austrian state of Styria are the unit of observation, 125 were newly created in the course of an economic reform in 2015. We use vote shares for different opposition and government parties in columns (1) to (4) and voter turnout in column (5). In the center and bottom panel, we interact the difference-in-differences estimate with the number of local clubs per 1,000 capita and average internet speed (download speed). We pool 26 local, state, and national elections since 1986. Controls are total population (log), the population share of females, the population share of foreigners, the population share of residents of 15 years and younger, and the population share of residents 75 years and older. Matching variables are total population, share of settlement area, minimum altitude, and maximum altitude. Significance levels (standard errors clustered at the municipality level): *** 0.01, ** 0.05, * 0.1.