The Bolshevik roots of social capital: an empirical investigation

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Abstract

Italy's social capital has long intrigued social scientists, yet the determinants remain elusive. This paper explores the enduring impacts of the Red Scare post-WWI on social capital post-WWII. The Red Biennium (1919-20) instigated significant revolutionary threat and political mobilization, introducing social struggle to previously inactive areas in Italy. Utilizing municipality-level foot-soldier war casualties as an instrumental variable for socialist support, referendum turnout data reveals a substantial short-term decrease within a generation, with limited evidence of long-term effects. OLS estimates, however, may wrongly suggest a null or positive effect.

The impact varies, showing a positive effect in rural areas and the South of the country—regions mobilizing for the first time in their history during the Red Biennium, as documented in historical accounts.

The analysis of European election turnout reveals a consistent absence of enduring effects. This study posits evidence supporting the role of polarization and fascist violence in shaping these dynamics.

1 Introduction

Since the seminal work of (Putnam et al., 1992), extensive research has explored the role of social capital for well-functioning governments and economies, yet its determinants are still unclear.

Italy is a particularly relevant setting in this matter since social capital is at the root of the North-South divide. Putnam et al. (1992) and, later, Guiso et al. (2016) highlight how the regime of free municipalities in Northern Italy fostered horizontal relations and social capital, while the feudal monarchy in the South maintained a rigid hierarchy and vertical relations, resulting in

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lower civicness. Other contributions have rejected this long-term explanation, attributing the regional gap to the French domination in the XIXth century (Felice et al., 2013; Postigliola & Rota, 2021), while Cappelli (2017) shows the role of contextual factors of Liberal Italy, such as land inequality.
While there is a rising literature on the social and political effects of contention (Davenport et al., 2019), there remains an important gap regarding the role of other institutional shocks in the XXth-century and their long-term effects on Italian social capital, which forms the primary contribution of this paper. Specifically, I study the role of the post-World War I Red Biennium and Bolshevik threat in shaping social capital in Italy during the post-World War II period.

The Red Biennium, which took place from 1919 to 1920, was a historical period of significant revolutionary threat and political mobilization in Italy. It sparked widespread political activism and social struggle, extending from waged laborers in the North to sharecroppers in the Centre and farmers in the South.
In this paper, I extend the work of Acemoglu et al. (2022) by looking at the long-term effects of the Red Scare on social capital [1]. I find a substantial decrease in the short run, as evidenced by the 1946 referendum. However, after 1974, the observed effect of the Red Scare dissipated. This result is robust to several specifications and appears to be driven by the fascist violence experienced in the *Biennio Nero* (Black Biennium) and transmitted across generations. The identification strategy uses an instrumental variable approach, drawing on Acemoglu et al. (2022) and relies on municipality-level share of WWI foot soldier casualties in the population over 6 as a source of exogenous variation to predict socialist support.
These results stand in stark contradiction with Hypothesis 3 (henceforth, H3), for which left-wing movements increase social capital, even though heterogeneity analysis provides a more blurred picture. They do not reject Hypotheses 1 and 2 (henceforth, H1 and H2), which predict a negative effect - with the role of respectively local state institutions and political violence.

Literature review In the realm of social capital, I build upon Putnam et al. (1992) definition, emphasizing the connections among individuals' social networks and the associated norms of reciprocity and trustworthiness.
Durante et al. (2023), using survey data to validate other measures of observed behavior, highlights how the concept of social capital remains "elusive", and how it is necessary to be careful with the respective measures used to measure it. It decomposes social capital and identifies its components as social participation, political participation, general trust, and institutional trust.
Guiso et al. (2006) ascribes the concept of social capital to culture, making it possible to draw and

[1] Acemoglu et al. (2022) shows that the surge in socialist support stemming from the discontent of World War I played a significant role in the rise of fascism. They argue that agrarian strikes, driven by increased Socialist Party support, heightened the perceived threat of socialism, leading local rentiers and landowners to support fascists with donations.

make conclusions from the literature on cultural transmission (Bisin & Verdier, 2000, 2001; Guiso et al., 2008). Tabellini (2008) has represented one of the most influential conceptualizations of social capital and its accumulation, to which this paper brings new evidence in a novel domain, i.e., the consequences of a Red Scare.

I complement the studies relating the consequences of high social capital on several economic and political outcomes, among which economic growth (Bjørnskov, 2006; Peri, 2004), financial development (Guiso et al., 2004) and property crimes (Buonanno et al., 2009). Among the political consequences, Nannicini et al. (2013) stresses the benefits of political accountability; closer to my case, Satyanath et al. (2017), in the case of the Nazi party, and Riley (2005), for fascism, show how high levels of social capital may be conducive to the rise of authoritarian regimes.
On the other hand, I provide new evidence on the formation of social capital over the medium-long term. Existing research has studied the role of experiences of local cooperation (Guiso et al., 2016; Montolio & Tur-Prats, 2018; Putnam et al., 1992), the role of (Napoleonic) law (Buggle, 2016; Felice et al., 2013; Postigliola & Rota, 2021), geography (Buggle & Durante, 2021), kinship and family ties (Banfield, 1967; Henrich, 2020), organized crime (Buonanno et al., 2023; Calamunci & Frattini, 2023) and more contextual factors (Cappelli, 2017). This study provides new historical evidence on the role of the Red Scare as an institutional shock that affected social capital in the short/medium term (25-50 years) but does not contribute to long-term persistence.

Furthermore, this paper adds to the literature on the social and political consequences of contention, and, particularly, insurgence (i.e., when political challengers are initiators and target governments), in a specific setting, i.e., the one of a weak state in the presence of a revolutionary threat. In this framework, existing studies have explored the impact of insurgency in various contexts of weak states, such as the Sicilian Mafia (Acemoglu et al., 2020), the Mexican Revolution (Dell, 2012), and, closer to this case, the Spanish Civil War (Tur-Prats & Valencia Caicedo, 2020). In the latter paper, the authors show how political violence affected trust and voting behavior during the Francoist dictatorship (winner of the war) and after, eliciting collective memory as a mechanism for intergenerational transmission.
Relatedly, Acemoglu and Robinson (2006) argues that the credible threat of revolution played a significant role in convincing elites to accept democratic reforms; Rasmussen and Knutsen (2023) make the case for the Norwegian Welfare state, Aidt and Jensen (2014) for franchise extensions in Europe. This work explores the consequences in the Italian case, where the insurgence was repressed and paved the way to fascism.
Relevant literature shedding light on the social and political consequences in Italian XXth-century history examined the consequences of Nazi occupation on political extremism (Fontana et al., 2023), as well as post-World War II antifascist activity and subsequent right-wing voting patterns (Panza et al., 2022). Conzo and Salustri (2019) documents the negative consequences

of WWII on social trust and state fragility.
Lastly, Blattman and Miguel (2010) argues that "the social and institutional legacies of conflict are arguably the most important but least understood of all war impacts", to which this paper offers new insights.

The paper proceeds as follows. Section 2 provides an overview of the Italian political and economic landscape at the end of WWI. Section 3 introduces the data used and their sources. Section 4 discusses the prior hypotheses and the methodology used for the analysis. Section 5 illustrates the main results and section 6 analyzes potential mechanisms and links with previous literature. Section 7 concludes.

2 Historical Background

2.1 World War I

Italy joined WWI one year after the rest of Europe against its former allies Germany and Austria, with the Pact of London on April 26, 1915. Successful interventionist propaganda was crucial, led also by Benito Mussolini (a former socialist) together with a coalition including nationalist conservatives, liberal radicals, republicans, democratic socialists, and revolutionary syndicalists, hosted by the newspaper *Corriere della Sera*. The majority in parliament was still against the war, as well as the majority of the population (Bianchi, 1914). Italy was promised significant territorial compensations, which were not respected (Tasca et al., 1938).
This led to huge discontent in the aftermath of the war, which went down in history as *vittoria mutilata* (mutilated victory), as Gerwarth (2016) argues. Land promises to farmers were not respected and assault troops took the merit of the victory in war, in contrast with the rest of the casualties suffered by the Italian population.
Moreover, in the years following the war, Italy faced a substantial economic recession, with subsequent unemployment (particularly for women emancipated during the war replacing the men at the front) and increasing inflation and public debt, which led workers to defend their purchasing power joining unions and then strike.

2.2 The Red Scare, 1919-20

Italian Socialist Party (henceforth, also PSI) was founded in 1892. As a "classic" socialist party of the late XIXth century, most of its membership came from labor unions and work cooperatives, from industrial cities (in the case of Italy, the industrial triangle of Genoa, Milan, and Turin) and was divided between moderate social democrats and revolutionaries. It had a pacifist stance during WWI, leading to some losses for the party, among which Mussolini.
All these characteristics made the Socialist Party a catalyst for post-WWI discontent. Indeed, in 1919 unions gained a huge increase in memberships and a general strike was announced in April.

In this period, the Socialist Party was led by the revolutionary wing, which refused alliances with liberals and was in charge of unions. Their proximate goal was the Socialist revolution, taking as an example what the Bolsheviks had done in 1917 in Russia. Bianchi et al. (2002) highlighted that workers, even though led by the PSI, were even more convinced and motivated than the Party itself to *do as in Russia* (that was the motto). Ultimately, the weakness of the Party's intentions about making the revolution led to its failure.
What makes this historical period appealing to study is the fact that this mobilization was quite spontaneous and spread quickly throughout Italy, from waged laborers in the North to sharecroppers in the Centre (where they were more organized) and the South (where lands were occupied by farmers). In particular, the mobilization introduced social struggle to many places that had been inactive up to that point [2]. Several historiographies, summarized by Natoli (2012), have highlighted how 1919-20 in Italy revolutionized customs and consciences, by giving millions of people a new idea of political citizenship and a new dignity and social responsibility. Bianchi et al. (2002) pointed to the social antagonism being subversive and "maximalist" (of the people rather than the party) in its demand for change. In the November 1919 elections, together with the Popular Party, PSI won. Liberals did not gain anything and fascists (founded in 1920 by Mussolini) remained without seats.
In September 1920, workers occupied factories all over the country. They did not stop the production process, in order to prove to be able to continue without the business owners.
Business owners wanted the government (led by Giolitti) to suppress these protests. However, the central government's agreements were unsatisfying for workers, who did not get control of the factories (despite wage increases), and for the bourgeoisie, who feared the revolution. All these events contributed to remembering and calling these years *Biennio Rosso* (Red Biennium), for the serious fear that a socialist revolution could happen in Italy. In 1921 the revolutionary wing of the PSI left the party to establish the Italian Communist Party (PCI). In particular, the main disagreement regarded the willingness to join the Third International.

2.3 The rise of Fascism

After leaving the Socialist Party in 1915, Mussolini founded *Fasci di Combattimento* in March 1920. This movement was still influenced by socialist ideas, yet interventist during WWI. However, it got no seats in Parliament for November 1919 national election.
The episode of Palazzo D'Accursio in Bologna in 1920 was crucial for the stance of the movement. After the victory of the socialist (and maximalist) administration, fascist squads attacked the celebrating crowd with fire, with the complicity of the military. According to De Felice (1976), this event marked the beginning of *squadrismo* and of agrarian fascism, i.e., "the swift ascent of a reactionary-conservative alliance between the landlords and the commercial and industrial bourgeoisie" to restore stability in the country - which the state could not guarantee - with the complicity of the military.

[2] *Storia d'Italia Einaudi. Le Regioni*, Torino, Einaudi,1977-2002

Fascist organizations used (systematic) "punitive expeditions" against worker associations and socialists to restore the control of landowners in the countryside, where the social struggle was more intense. They were less successful in urban contexts, where they met the resistance of organized workers.
The role of the fascists was to oppose requests by sharecroppers and laborers for better working conditions. These violent acts (as the early organization of fascism) were supported by agrarian landowners in the first instance, while the support of the bourgeoisie was more important to get a broader consensus, as Acemoglu et al. (2022) shows with the votes in 1924. The complicity of the Italian state after the Bologna episode was also crucial for the systematic attacks of the fascists.
After running with liberal Giolitti in the National Bloc to oppose the socialists, following the elections of May 1921, the Fascist party (henceforth, also PNF) did not become part of the governing coalition. The latter was led by Giolitti, who resigned in July 1921 due to the excessive instability. October 1922 marked the official beginning of Fascism with the march on Rome. Thanks to this and the complicity of the monarchy, Mussolini and the PNF took power.
Due to these events, these years (1921-22) went down in history as *Biennio Nero* (Black Biennium), similarly to 1919-20 for the Red Scare.

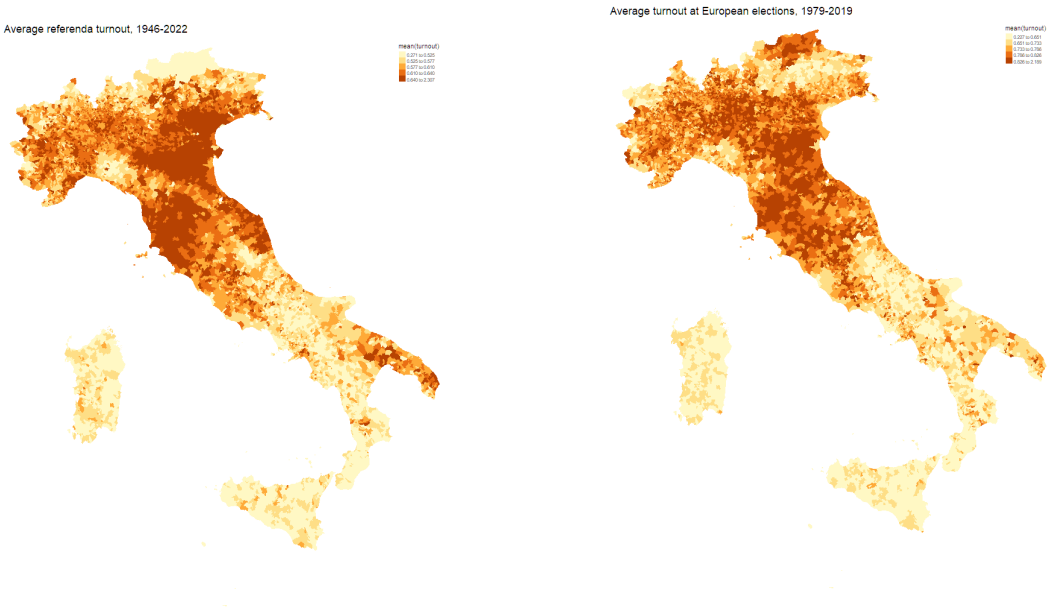
3 Data and descriptive statistics

3.1 Social Capital

Consistently with the literature on social capital, I use measures of voter turnout and tax evasion rate, i.e., measures of observed behavior.
To this purpose, I use referenda and European elections turnout from Italian Ministry of Interior. Their temporal and spatial distribution is visualized in Figure 1 and 2.
Municipality-level data for Referenda turnout are available at irregular intervals for 1946-1981 and 2009-2022. I use the maximum participation across questions if a referendum has multiple questions. Table A2 provides a summary of the referendum questions. After WWII the involvement in political life (and institutional trust) was considerably higher than what is seen today, with an average turnout of around 90% for the first four referenda. This also means that there is little variability to exploit to explain social capital, hence this measure, if anything, will bias towards 0 the real effect.
To overcome the 30 years of missing disaggregated data, as in Calamunci and Frattini (2023), municipality-level data for European election turn-out are available for 1979-2019 at 5-year intervals.
There are neither legal nor economic (or strategic) incentives to vote for a referendum or an election at such an aggregate as for the European Parliament. The only determinants of such a decision are internal norms and social pressure, indeed the core components of social capital. Durante et al. (2023) confirm the validity of such a measure with ISTAT survey data.

The data on the tax evasion rate represent the decision to contribute to public good - in this case, state television (RAI) - with no legal enforcement, before the reform in 2015 by the Renzi government. For this reason, this measure is likely driven by the same components of referenda (Casaburi & Troiano, 2016).

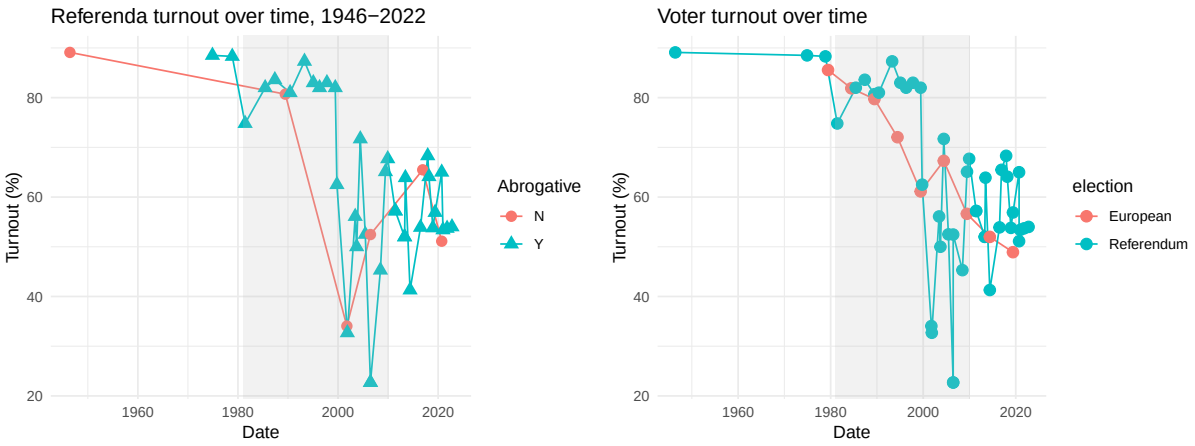
Figure 1: Spatial distribution of social capital measures.



(a) Avg. referenda turnout, 1946-2022.

(b) Avg. turnout at European elections, 1979-2019.

Figure 2: Average turnout over time.



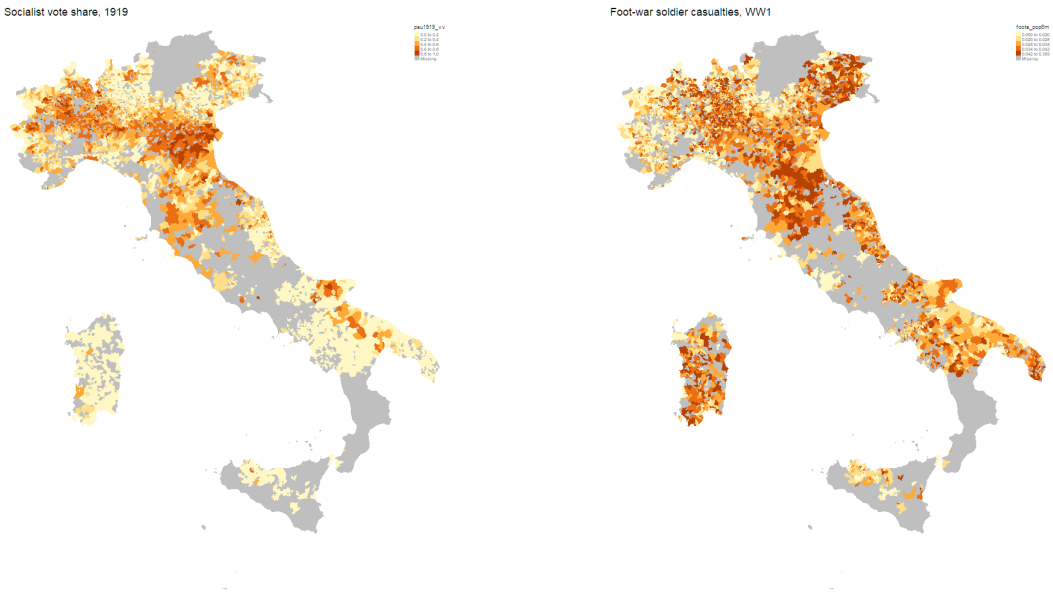
(a) Avg. referenda turnout, 1946-2022

(b) Average voter turnout

3.2 Red Scare and WWI data

I use Acemoglu et al. (2022) data on socialist support, as well as on war casualties (used as an IV) and political violence.
In particular, I employ their electoral measures of the socialist and fascist vote share in 1919, 1921, and 1924 elections at the municipal level, as well as data on agrarian strikes, political and fascist violence, and foot-war soldier casualties. They expand the work by Corbetta and Piretti (2009) and collect data on 64 out of 69 provinces at the time using local and national historical newspapers and state archives. Data on Italian soldiers' casualties in WWI are collected from the military Roll of Honour. In addition to these, they recover data from Franzinelli (2019) on fascist violence and killings.
As it is clear from Figure 3, endogenous sampling is a concern: municipalities are not missing at random, but their presence in the sample is likely driven by unobserved institutional quality. Mainly for this reason, entire provinces are missing, and several of them have few municipalities reported.
Summary statistics are reported in Table 1.

Figure 3: Spatial distribution of the Red Scare variables



(a) Socialist vote share, 1919 election

(b) WWI foot soldier casualties

3.3 Controls

Summary statistics are illustrated in Table A1.
Female occupation comes from *serie storiche ISTAT* for 1977-2015 at the regional level. To the best of my knowledge, this is the earlier and finer-level data available for women's emancipation.

Table 1: Descriptive Statistics, main variables.

	Obs	Mean	Std. Dev.	Min	Max
Social capital, Referenda					
Turnout 06/1946	3732	0.909	0.046	0.45	1.00
Turnout 05/1974	3732	0.870	0.096	0.35	1.00
Turnout 06/1978	3732	0.820	0.107	0.28	1.00
Turnout 05/1981	3732	0.802	0.123	0.21	1.00
Turnout 06/2009	3732	0.216	0.111	0.03	0.69
Turnout 06/2011	3732	0.565	0.068	0.23	0.87
Turnout 04/2016	3732	0.313	0.070	0.08	0.63
Turnout 12/2016	3732	0.701	0.076	0.00	0.91
Turnout 09/2020	3732	0.555	0.117	0.21	0.99
Turnout 06/2022	3732	0.212	0.130	0.03	0.90
Social capital, European elections					
Turnout 1979	4000	0.852	0.093	0.32	1.00
Turnout 1984	4000	0.838	0.094	0.06	0.99
Turnout 1989	4000	0.836	0.084	0.06	0.99
Turnout 1994	4000	0.762	0.099	0.30	0.95
Turnout 1999	4000	0.772	0.094	0.05	0.99
Turnout 2004	4000	0.767	0.091	0.27	0.97
Turnout 2009	4000	0.711	0.130	0.15	0.96
Turnout 2014	4000	0.629	0.148	0.14	0.96
Turnout 2019	4000	0.605	0.142	0.12	0.93
Socialist activity and support					
Socialist vote share in 1913	3732	0.151	0.216	0.00	1.00
Socialist vote share in 1919	3732	0.303	0.269	0.00	1.00
Socialist majority in 1920 (binary)	3732	0.274	0.432	0.00	1.00
Socialist (+ Communist) vote share in 1921	3315	0.291	0.229	0.00	1.00
Socialist (+ Communist) vote share in 1924	3732	0.139	0.144	0.00	0.79
Agrarian Strikes in 1920	3732	0.323	0.609	0.00	4.00
Red scare index	3732	-0.002	1.012	-1.05	3.67
Fascist activity and support					
Fascist violence in 1920-2	3732	0.047	0.165	0.00	2.22
Fascist branches in 1921	3732	0.164	0.357	0.00	1.00
Fascist vote share in 1921	3460	0.050	0.071	0.00	0.80
Fascist vote share in 1924	3732	0.645	0.251	0.00	1.00

Notes: *Red Scare* is supposed to be standardized with mean 0 and standard deviation 1; since I do not employ the entire sample of Acemoglu et al. (2022), it deviates from those values. Besides European election data, all the variables are referred to the sample with referenda turnout data.

The other controls employed come from Acemoglu et al. (2022) and include municipal-level pre-WWI data on demographics, geography, electoral outcomes, and military, agricultural, and urban characteristics. I discuss them in detail in the empirical strategy.

4 Empirical strategy

4.1 Prior hypotheses

This section presents the preliminary hypotheses used in the analysis of the results. The hypotheses were constructed based on existing literature and plausible mechanisms that could have been in place in Italian 20th-century history.

Hypothesis 1. *Demand for local enforcement in weak states.* The Red Scare weakens the local state institutions, where the State is complicit with the violence exercised by fascist groups, decreasing legal enforcement (rather perceived or actual). This leads to increased demand by elite for local protection, satisfied by fascist organizations. As in the literature on the weakness of local state institutions the consequences amount to lower trust (Tabellini, 2008) and less contribution to public goods (Acemoglu et al., 2020) - measured by tax evasion rate for State television[3] - due to the low accountability of the local elites.
These consequences could still be present in post-Fascist Italy because, even though the institutional break was present, some Fascist officials were not persecuted, e.g., due to the Togliatti amnesty. This hypothesis hence features a channel of *institutional persistence*.

Hypothesis 2. *Civil war.* The literature on civil war highlights how this decreases generalized and social trust (Kijewski & Freitag, 2018), hence we should see a negative effect on social capital; the main channel would be political violence (in this specific case, fascist violence). This violence affects institutional trust (towards the ones exercising the violence) and political participation and has long-lasting effects being transmitted through collective memory (Tur-Prats & Valencia Caicedo, 2020). I expect a smaller magnitude because of the victimization being only political in this case and the institutions (towards I am measuring trust) being democratic. This hypothesis hence features a channel of *cultural persistence* The cultural transmission channel would be further corroborated by looking at the ITANES survey post-1994, which uses WVS-like questions to elicit cultural values.

Hypothesis 3. *Insurgence.* Since the Red Biennium led many places to mobilize for the first time in their history (see Section 2), I expect to find substantial heterogeneity. In particular, for these municipalities, typically from the South and more rural areas, being brought to politics may have led to a permanent greater involvement in political life, by going beyond the limited morality historically characterizing these places (Banfield, 1967). Political participation is one component of social capital, hence we should see positive heterogeneous effects for municipalities historically lagging behind (South of Italy, rural areas).

[3] used by Calamunci and Frattini (2023), but not publicly available yet

4.2 Identification

I exploit the IV strategy developed by Acemoglu et al. (2022), using war foot-soldiers casualties to address potential endogeneity problems. For instance, municipalities with greater stock of social capital in 1919 were more politically aware and hence more likely to mobilize and support the Socialist Party, leading to upward-biased estimates.
Once controlling for socio-economic and political characteristics of the area, the (municipal-level) share of WWI foot-soldier casualties in the population over 6 is uncorrelated with pre-1919 relevant characteristics of the municipalities and 1919 vote share for nationalist pro-war parties[4]. It rather captures the disappointment of Italians in the aftermath of the war and acted as fuel for the Socialist Party's support given its pacifist stance during the War, as discussed in Section 2. In addition to that, foot-war soldier casualties are less likely to suffer from selection bias since they represented "ordinary Italians' war experience", excluding volunteers and special assault troops.

The post-WWI socialist support Two Stage Least Squares model that I estimate is the following:

$$socialist_{i,p}^{1919-20} = \alpha_p + \gamma \times casualties_{i,p} + X'_{i,p}\beta + \epsilon_{i,p} \tag{1}$$

$$SC_{i,p}^{t} = \alpha_p + \eta \times \widehat{socialist}_{i,p}^{1919-20} + X'_{i,p}\beta + u_{i,p} \tag{2}$$

Equation 1 is the first stage and equation 2 the second stage. SC_i^t is the proxy for social capital. I estimate every model for voter turnout - separately for each election - and tax evasion rate at the municipal level.
With respect to the endogenous variable, the main covariates available for the Red Biennium are the number of agrarian strikes, the share of the Socialist party in the 1919 elections, and a dummy for a socialist mayor in the municipality. For the extensive margin of the Red Scare, I use the dummy for a socialist mayor and the difference between the socialist vote share in 1919 and the socialist vote share in 1913. For the intensive margin, I use the socialist vote share in 1919. Agrarian strikes can proxy the length of the institutional shock (as well as serving as a measure for the intensive margin), hence will be used for that purpose. Note that all these variables are measured with error, either because of missing data or misreporting, either because we cannot directly observe the threat brought by the Red Scare. This, if anything, will bias the estimates downwards.
The instrumental variable is the share of municipality foot soldier casualties, together with a vector of socio-economic covariates $X_{i,p}$ included also in equation 1 and Province fixed effects α_p. Following Acemoglu et al. (2022) in the name and in the selected variables, they are added in blocks, structured as follows:

- demographics, to control for the age structure of the population

[4] which, however, run in only two districts and were yet far from organized

  - quartic in log population
  - share of population below the age of six in 1911
- geography, to proxy for population density
  - log area
  - elevation of the main center
  - maximum elevation
- military, to prevent selection into people sent to war
  - veterans from classes 1874–95 and from classes 1896–1900
  - casualties among special assault troops and volunteers as a share of the male population above the age of six in 1911
  - dummy for the presence of army-supplying production plants
  - dummy for any casualties in the highest-mortality battles.
- agricultural
  - share of day laborers
  - share of sharecroppers
  - dummy for the presence of local agrarian associations
- urban
  - industry workers and industrial firms over male population in 1911
  - literacy rate in 1911
  - the share of entrepreneurs and rentiers
  - the share of the bourgeoisie
- regiment fixed effects, which, allowing only within-regiment variability, make sure that WWI casualties are really random, further ruling out selection issues in addition to the military covariates
- vote share for the Socialist Party in 1913 election, to capture additional party share got from war discontent

Errors are clustered at the electoral district level (*circondario*), as in Acemoglu et al. (2022). This is a more conservative choice but does not alter the significance of the estimates compared to using province-level clustered standard errors [5].

[5] the results hold also with spatial autocorrelation Conley standard erros

However, one possible violation of the exclusion restriction is the changing role of women after WWI: in municipalities that faced higher foot-war soldier casualties, women had more roles in factories and in families, became more emancipated, with potential consequences for associations and then social capital; Gay (2023) makes the case for France. To control for this possible violation, I use female occupation in 1977, for individuals older than 15. Female occupation is likely persistent so it can proxy earlier (and latent) female occupation - as well as, in general, women's emancipation - that would be needed in this case.

Indeed, Acemoglu et al. (2022) and Table A4 confirm that the first-stage relationship is quite strong empirically.

5 Results

5.1 Voter turnout

I run the regressions separately for each referendum in the period 1946-1981 in Table 2 visualizes the results over the medium run (1946-1981).

OLS coefficients are generally small in magnitude and do not detect any robust effect on referenda turnout in several elections. This is consistent to one extent with civic engagement driving mobilization in the Red Scare, leading to an upward coefficient; to another extent, measurement error in the elicitation of the Red Scare, which is not directly observable.
Full OLS results over 1946-2022 are shown in Table A3. The coefficients are generally small in magnitude and do not detect any robust effect on referenda turnout in several elections, except for 2009 and 2011. There, the strength of the association is quite strong, given the 100-year lag between the dependent and the explanatory variable. The support and promotion from the left-wing parties for referenda in 2009 (only the Democratic Party) - which involved changes in the institutional design - and 2011 (where also populist parties supported the question) - regarding the management of public services and the production of nuclear energy - explains the robust association that we observe in the Table.

Concerning 2SLS, the IV becomes more predictive in the first stage as controls are added[6], for which the full results in Table A4 provide further evidence. In the short-medium term, the most sizable effects are mostly on the 1946 and 1974 elections (however, the latter feature much larger confidence intervals) and are quite robust across specifications. The instrumented Red Scare can capture most of the (little) variability of turnout. One standard deviation increase in socialist support in 1919 led to a decrease in referendum turnout in 1946 (1974) of around 0.7-0.8 (0.3) standard deviations. The effect then decreases towards an imprecise zero, as in Figure 4a.

[6]This highlights the loss in statistical power from the reduced sample size with respect to Acemoglu et al. (2022). In Table 1 in their paper, the F-Stat is around 40 in the specifications with only demographic controls

Table 2: Comparison of OLS and IV regressions of the effect of Socialist support in 1919 on referenda turnout 1946-1981

Dep.var.: Turnout	06/1946	05/1974	06/1978	05/1981
OLS: *Demographics, geography controls + socialist*^{1913}				
socialist^{1919}	-0.02	-0.02	-0.02	-0.01
	(0.04)	(0.02)	(0.02)	(0.02)
OLS: *Previous controls + military*				
socialist^{1919}	-0.02	-0.02	-0.02	-0.01
	(0.04)	(0.02)	(0.02)	(0.02)
IV: *Demographics, geography controls + socialist*^{1913}				
socialist^{1919}	-0.83***	-0.38*	-0.14	-0.24
	(0.32)	(0.22)	(0.20)	(0.18)
1stage F-stat	28.85	28.85	28.85	28.85
IV: *Previous controls + military*				
socialist^{1919}	-0.68**	-0.30	-0.09	-0.18
	(0.33)	(0.22)	(0.21)	(0.18)
1stage F-stat	24.81	24.81	24.81	24.81
Obs.	3732	3732	3732	3732

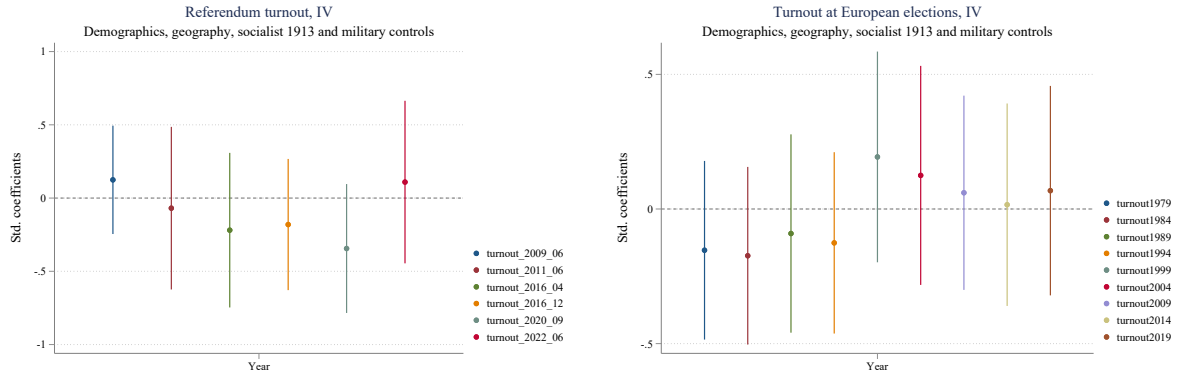
Notes: OLS and IV regressions of 1946-2022 referenda turnout on socialist vote share in 1919. Regressions are run separately for each referenda. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) in parentheses. All specifications include province and regiment FE.
See section 4.2 for the definition of control variables. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The broad picture is confirmed by European election results in Figure 4b for IV (full OLS estimates available in table A5, IV in table A6). No coefficient is robustly significant, confirming the finding of no effect on social capital from the 1980s onwards.

Overall, the results indicate that the effect of the Red Scare does not hold in the long run, influencing referendum turnout only up to 25 years (for 1946) or at most 50 (see 1974).
Such findings do not contradict H1 and H2, i.e., respectively the institutional and cultural channel, even though little long-run persistence is in place; they will be further investigated in Section 6. Regarding the latter, indeed the results are consistent with a one-generation-only transmission and, in particular, the diminishing family transmission of values across generations, as shown by Bisin and Verdier (2000) and Bisin and Verdier (2001), given the competition on sources of socialization between family and, e.g., formal education or social groups.
However, H3, which predicted a positive effect, is rejected, meaning that the highlighted mechanisms either are not at stake or are overwhelmed by the ones of the other two hypotheses.

Robustness Results are robust to controlling for female occupation (Table A7) and keeping only provinces with most municipalities present.

Figure 4: The null result in the long term



(a) Referendum turnout, 2009-2022

(b) Turnout at European elections, 1979-2019

For the former, the control as mentioned is at the regional level, which is a higher aggregate than the FEs employed so far (province). Hence, giving up those controls is needed to estimate the regression, which then does not feature region or province fixed effects; the specification without female occupation nor province FE is shown in Table A8. With the latter as a comparison, the coefficients are generally smaller in magnitude in the specification with female occupation. For the main results, in this case, there is also a sizeable effect in the December 2016 and 2020 referenda, which however is probably spurious and not robust to the inclusion of province FE. Overall, this set of results confirms the effect of socialist support on the first referendum, while being less credible than the main specification due to the omission of Province FE, which could be undermining the exclusion restriction.
The results hold also by controlling for provinces with a sufficient number of municipalities. Indeed, there are some provinces with just one municipality and several with less than 10, so they may inflate the FE model and its standard errors. The significance and magnitude of the coefficient hold also by restricting to provinces with the number of municipalities above the median or the first quartile in the sample. By merging referenda results into 1946-1981 and 2009-2022, I find little evidence of an effect of socialist support on turnout.

Concerning the exclusion restriction, the null result, in the long run, holds by using relative rainfall and excess mortality from Spanish flu as instruments, at the cost of a significantly smaller sample size (Tables A9 and A10).
The negative result holds in the case of Spanish flu mortality while being more imprecise. In the case of relative rainfall, the coefficient for 1946 is positive and significant, showing how the different groups of compliers may yield different results. While the group of compliers for war casualties is clear and documented by historical accounts, in these IVs it is unclear. For these reasons, together with the small sample size (smaller than 200 observations), the significance of the estimates from Tables A9 and A10 needs to be taken with care.

The reduced form of foot-war soldier casualties shows a negligible direct effect (Table A11).

5.2 Tax evasion rate

By looking at the yearly municipal-level measures for payment of *Canone RAI*, available soon from Calamunci and Frattini (2023), I can further test H1 separately.

5.3 Heterogeneity

Table 3 suggests that there could be evidence for heterogeneous effects for the South of Italy, historically lagging behind in terms of economic and social development. Weak-identification robust inference on the joint endogenous regressors reveals that they are significant in the case of the 1946 referendum. The effect is counterbalanced to be 0 or even positive.
In order to analyze heterogenous effects for rural areas, where the Red Scare historically contributed to mobilizing people politically inactive up to that point (and where later fascist activity was more intense), I use the municipality-level share of day laborers and the share of sharecroppers in 1921 as proxies for rurality. Even with problems of weak identification, table 4 provides evidence for heterogeneity with a positive coefficient for the interaction term (using weak-identification robust inference). This means that the negative partial effect of 1919 socialist support on referenda turnout was lower in absolute terms (if not even 0) for more rural areas, which became more politically aware on the occasion of the Red Biennium.
Both these sets of results can be reconciled with H3 and to a heterogeneous (local average) treatment effect. Where social conflict was decisive in mobilizing historically backward communities (i.e., rural areas and the South of Italy), it did not lead to a reduction in social capital; if anything, civic and political engagement increased. Once people are brought to politics, they do not come back.

6 Mechanisms

6.1 Mistrust and conflict

Consistently with the literature relating (civil) conflict to increased polarization (Fontana et al., 2023), I test this hypothesis in the present case. Similarly to Montolio and Tur-Prats (2018), I use an index of political polarization, equal to 1 if left-wing or right-wing parties received all the votes, and 0 when both groups received 50% of the votes in political elections. The index is computed at the municipal level i.
I repeat this exercise for the 1919, 1921 (which features a restricted sample) and 1924 election. I include only fascists and nationalists (in 1919) as right-wing parties, while socialists and

Table 3: 2SLS results for heterogeneous effects of Socialist support in 1919 on referenda turnout 1946-2022, South of Italy

Dep.var.: Turnout	06/1946	05/1974	06/1978	05/1981
Province and regiment FE, demographics, geography, military controls + socialist^{1913}				
socialist^{1919}	-0.61**	-0.21	-0.00	-0.13
	(0.31)	(0.27)	(0.26)	(0.20)
$socialist^{1919} \times South$	0.99	1.34**	1.36*	0.84*
	(0.78)	(0.66)	(0.72)	(0.44)
South Italy dummy	-1.78**	-2.27***	-2.08***	-1.64***
	(0.84)	(0.66)	(0.74)	(0.48)
1stage F-stat	1.59	1.59	1.59	1.59
arfp	0.01	0.02	0.00	0.07
archi2p	0.01	0.01	0.00	0.04
Previous + agricultural controls				
socialist^{1919}	-0.63**	-0.17	0.02	-0.11
	(0.30)	(0.28)	(0.27)	(0.20)
$socialist^{1919} \times South$	0.94	1.30**	1.32*	0.82*
	(0.73)	(0.63)	(0.69)	(0.42)
South Italy dummy	-1.72**	-2.19***	-2.01***	-1.58***
	(0.80)	(0.63)	(0.71)	(0.46)
1stage F-stat	1.69	1.69	1.69	1.69
arfp	0.01	0.01	0.00	0.06
archi2p	0.01	0.01	0.00	0.04
Previous + urban controls				
socialist^{1919}	-0.61*	-0.19	-0.00	-0.12
	(0.32)	(0.29)	(0.27)	(0.20)
$socialist^{1919} \times South$	1.08	1.35**	1.36*	0.83*
	(0.82)	(0.65)	(0.71)	(0.43)
South Italy dummy	-1.79**	-2.18***	-1.99***	-1.53***
	(0.90)	(0.67)	(0.74)	(0.48)
1stage F-stat	1.74	1.74	1.74	1.74
arfp	0.02	0.00	0.00	0.05
archi2p	0.01	0.00	0.00	0.03
Obs.	3732	3732	3732	3732

Notes: 2SLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919 in the South. Regressions are run separately for each referenda. The excluded instruments are the share of foot-soldier casualties in the male population over 6 alone and interacted with South Italy dummy; the endogenous variables are socialist vote share in 1919 alone and interacted with South Italy dummy. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) in parentheses. See section 4.2 for the definition of control variables. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. $p(\beta_{South} + \beta_{South \times Socialist})$ refers to the joint test of *South* dummy and $socialist^{1919} \times$ *South*. *arfp* and *archi2p* are weak-identification robust tests of significance of the endogenous, hence $socialist^{1919} \times$ *South* and *socialist*^{1919}.

Table 4: 2SLS results for heterogeneous effects of Socialist support in 1919 on referenda turnout 1946-2022, rural areas

Rural variable:	Day laborers				Share-croppers			
Dep.var.: Turnout	06/1946	05/1974	06/1946	05/1974	06/1946	05/1974	06/1946	05/1974
socialist^{1919}	-1.82**	0.16	-1.69*	0.19	-0.72	-0.29	-0.68*	-0.28
	(0.83)	(0.47)	(0.89)	(0.48)	(0.44)	(0.31)	(0.40)	(0.28)
socialist^{1919} × *Rural*	1.97	-0.75	1.78	-0.78	3.06	2.34	2.66	1.92
	(1.67)	(0.79)	(1.86)	(0.82)	(7.96)	(6.90)	(5.33)	(4.41)
Day laborers	-0.99	0.36	-0.81	0.50	-0.00	-0.12	0.13	0.03
	(0.92)	(0.43)	(1.04)	(0.46)	(0.25)	(0.21)	(0.10)	(0.08)
Share-croppers	0.01	0.06	0.02	0.17***	-1.97	-1.50	-1.64	-1.13
	(0.06)	(0.04)	(0.10)	(0.05)	(5.27)	(4.56)	(3.50)	(2.90)
Agriculture	✓	✓	✓	✓	✓	✓	✓	✓
Urban		✓		✓		✓		✓
1stage F-stat	1.91	1.91	1.44	1.44	0.05	0.05	0.09	0.09
arfp	0.01	0.32	0.02	0.33	0.04	0.16	0.06	0.11
archi2p	0.00	0.27	0.01	0.28	0.02	0.12	0.04	0.08
Obs.	3732	3732	3732	3732	3732	3732	3732	3732

Notes: 2SLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919 by rural areas, proxied by share of day laborers and share of sharecroppers. The interacted rural variable used as a proxy is the share of day laborers for the first four columns, and the share of sharecroppers for the last four columns. Regressions are run separately for each referenda. The excluded instruments are the share of foot-soldier casualties in the male population over 6 alone and interacted with the rural variable; the endogenous variables are socialist vote share in 1919 alone and interacted with the rural variable. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. *arfp* and *archi2p* are weak-identification robust tests of significance of the endogenous, hence $socialist^{1919} \times rural$ and $socialist^{1919}$. *Day laborers* and *Share-croppers* refer to the their share in municipality *i* in 1921.

communists (from 1921) as left-wing parties.

$$\text{Polarization}_i^t = (VoteLeft_i^t - VoteRight_i^t)^2, t = \{1919, 1921, 1924\} \quad (3)$$

With this index, I first show whether it was affected by socialist support in 1919, i.e., the main measure for the Red Scare. While for 1919 the relationship is mechanical, column 2 in Table 5 shows that polarization in 1921 was affected, while less so for 1924 [7].

Then, I turn to understand whether this increased polarization mattered for the 1946 and 1972 referenda. To do so, I instrument 1921 polarization with the measure for WWI foot-soldier casualties used before, using referendum turnout as a dependent variable. Column 3 in Table 5 provides evidence in favor of this interpretation.

These results are consistent with an increase in mistrust towards individuals of different political

Table 5: 2SLS results on the role of political polarization

Dep. var.:	Polarization			Turnout			
	1919	1921	1924	06/1946	05/1974	06/1978	05/1981
Province and regiment FE, demographics and geography							
$socialist^{1919}$	0.21***	0.12***	0.06				
	(0.01)	(0.03)	(0.07)				
$Polarization^{1921}$				-6.59**	-1.43	0.45	-0.72
				(2.99)	(1.40)	(1.38)	(1.24)
1stage F-stat	21.14	20.74	21.14	11.48	11.48	11.48	11.48
Previous + $socialist^{1913}$							
$socialist^{1919}$	0.21***	0.12***	0.07				
	(0.02)	(0.03)	(0.07)				
$Polarization^{1921}$				-7.30**	-1.59	0.45	-0.81
				(3.42)	(1.53)	(1.51)	(1.36)
1stage F-stat	28.85	25.92	28.85	11.25	11.25	11.25	11.25
Previous + military							
$socialist^{1919}$	0.21***	0.11***	0.09				
	(0.02)	(0.03)	(0.08)				
$Polarization^{1921}$				-6.71*	-1.05	1.01	-0.32
				(3.93)	(1.71)	(1.73)	(1.54)
1stage F-stat	24.81	21.47	24.81	8.12	8.12	8.12	8.12
Obs.	3732	3315	3732	3315	3315	3315	3315

Notes: Regressions are run separately for each referenda. The excluded instrument is the share of foot-soldier casualties in the male population over 6, the endogenous variable is socialist vote share in 1919 in columns 1 to 3, and political polarization in columns 4 to 7. Socialist vote share and referenda turnout are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, **. *arfp* and *archi2p* are weak-identification robust tests of significance of the endogenous.

identities. The Scare effect reduces out-group trust (while little can be said about in-group trust), leading to polarization in voting attitudes and political participation in the 1946 referenda. To

[7] which I consider less reliable, given that widespread fascist violence and the disproportionate success of the Fascist party

provide further evidence for this channel regarding attitudes, Table A12 in the appendix shows how the election of socialist mayors (which is a dummy, representing an extensive margin) matters for the short-term reduction in social capital, while little is present for agrarian strikes (not shown, it is very imprecise in terms of estimation). This finding suggests that it is not social conflict per se to leads to a reduction in referendum turnout.

6.2 The role of fascist violence

The results presented in the previous section do not reject a (short) cultural and intergenerational transmission effect: people who lived the Red Biennium transmitted a set of cultural values and beliefs associated with it to the subsequent generation, hence the negative effects that we see. The subsequent generation, however, did not pass it to the other, presumably because of the great political unrest faced by Italy during the '70s and '80s (Years of Lead, *Anni di Piombo*), which may represent the aforementioned competitors in the sources of socialization. Fogu (2006) argues that the collective memory of fascism was most likely to be transmitted at the familiar level, since history was taught only until WWI in schools, at least in the period concerning the first referendum. This stands in contrast with the finding of Acemoglu et al. (2022), where the negative effect of fascist support in 1924 on center-right vote share is persistent, at least until the end of *Prima Repubblica*. However, their evidence is only correlational, so caution is needed with any conclusion [8].

Research has shown that political violence does affect political behaviour (Fouka & Voth, 2023). In what I believe is one of the closest papers for the research question and external validity, Tur-Prats and Valencia Caicedo (2020) show that the Spanish Civil War and the associated political violence decreased social capital in the long run, by looking in particular at institutional (for Francoist institutions only, like the Army and the Civil Guard) and generalized trust, while no effects are detected for trust toward democratic institutions. In addition to this, they use individual-level survey data to suggest the role of collective memory, which are not publicly available for Italy.
Lupu and Peisakhin (2017) show that in the case of political violence and deportation against the Crimean Tatars in Stalinist Russia, the long-term effects on political identities last up to three generations, using individual-level survey data. They find that the more the survivors of the deportation have suffered, the more their descendants feature political participation and ingroup attachment.

I perform a mediation analysis in my case by using political violence ($violence_i^{1920-22}$) as an endogenous regressor (in place of socialist support in 1919) and instrumenting it with war

[8] Moreover, since several historical accounts report how those elections were fraudulent due to fascist intimidation, the use of this measure is likely to overestimate the real fascist support in 1924

casualties. I regress it onto my measure of social capital SC_i^t, i.e., post-WWII referendum turnout.

$$violence_{i,p}^{1920-22} = \alpha_p + \gamma \times casualties_{i,p} + X'_{i,p}\beta + \epsilon_{i,p} \tag{4}$$

$$SC_{i,p}^{t} = \alpha_p + \eta \times \widehat{violence}_{i,p}^{1920-22} + X'_{i,p}\beta + u_{i,p} \tag{5}$$

Table 6 confirms that political violence - in particular, fascist violence (the correlation is around 0.9) - is a driver in the decrease of social capital after WWII. The magnitude of the coefficients is quite similar to the ones in Table A4. Here foot-war soldier casualties become less predictive and 1st stage F-statistics is below the classic threshold of 10; however, weak-identification robust standard errors seem to confirm the robustness of the results.
The mechanism for generalized trust, as also suggested by Tur-Prats and Valencia Caicedo (2020), lies along the line of "live with the enemy", where neighbors of different political identities had to live with one another, ready to turn in or be turned in with the accuse of being antifascists. With respect to political participation (and, to a lesser extent, institutional trust), the result is consistent with, and supports, a part of the literature highlighting how exposure to violence undermines support for democracy (Burchard, 2015), causes traumatized individuals to withdraw and hide (Hutchison & Johnson, 2011), and reduces voter turnout (Zhukov & Talibova, 2018). Durante et al. (2023) shows how referendum turnout captures mainly generalized and institutional trust and political participation. In light of this, the similarities with Tur-Prats and Valencia Caicedo (2020) would suggest that my finding is capturing mainly generalized trust and political participation, given the fact that the post-WWII (democratic) institutions were different from the Fascist ones.

Overall, in light of these results, H2 cannot be rejected.[9]

6.3 Long-term values

I will analyze the consequences of the Red Scare on moral values from the ITANES survey, to look for long-lasting cultural transmission.

7 Conclusion

This paper analyzed the relationship between the Red Scare experienced in Italy after WWI and social capital in the medium and long run. I find robust evidence that the former sizeably decreased social capital in the short run. I find little evidence of long-term effects, consistently with the brutal ending of the Red Biennium, i.e., the subsequent Black Biennium (and related

[9]Several caveats should be noted when comparing the findings of this study to the Spanish Civil War. The scale of the Spanish Civil War was considerably larger, with involvement and support from external forces, including Italian fascism. Additionally, the nature of victimization during the Spanish Civil War encompassed both political and civilian populations, whereas in this setting, the focus is primarily on political victimization.

Table 6: 2SLS results for the effect of fascist and political violence in 1920-22 on referenda turnout 1946-2022

Dep.var.: Turnout	06/1946	05/1974	06/1946	05/1974	06/1946	05/1974
Fascist violence in 1920-2	-0.71*	-0.31	-0.77*	-0.30	-0.77	-0.31
	(0.42)	(0.23)	(0.46)	(0.25)	(0.48)	(0.27)
1stage F-stat	7.36	7.36	6.33	6.33	6.89	6.89
arfp	0.03	0.17	0.02	0.23	0.04	0.25
archi2p	0.02	0.14	0.01	0.20	0.03	0.22
Political violence in 1920-22	-0.78*	-0.34	-0.85*	-0.33	-0.84	-0.34
	(0.46)	(0.26)	(0.51)	(0.28)	(0.54)	(0.30)
1stage F-stat	7.11	7.11	6.11	6.11	6.62	6.62
arfp	0.03	0.17	0.02	0.23	0.04	0.25
archi2p	0.02	0.14	0.01	0.20	0.03	0.22
Province and regiment FE	✓	✓	✓	✓	✓	✓
Demographics	✓	✓	✓	✓	✓	✓
PSI 1913 VS	✓	✓	✓	✓	✓	✓
Military	✓	✓	✓	✓	✓	✓
Agriculture			✓	✓	✓	✓
Urban					✓	✓
Obs.	3732	3732	3732	3732	3732	3732

Notes: Regressions are run separately for each referenda. The excluded instruments are the share of foot-soldier casualties in the male population over 6, the endogenous variable is fascist or political violence in 1920-22. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, **. *arfp* and *archi2p* are weak-identification robust tests of significance of the endogenous.

violence) and the Fascist period.

I borrowed data and empirical strategy from Acemoglu et al. (2022), which showed how the rise of the Socialist Party contributed to the rise of Fascism.

There are reasons to worry about the sampling of the data since several municipalities are missing not at random. I showed that this is not coming from provinces with few municipalities in the sample, but I cannot exclude that the Southern part of the sample behaves differently. Moreover, further work is needed to increase the sample size.

The source of exogenous variation employed is the municipality-level share of WWI foot soldier casualties in the population over 6, which they show is as good as random, once controlling for relevant characteristics of the municipality, and strongly predicts socialist support in 1919.

With this identification strategy, referendum turnout data shows that the revolutionary threat during the Italian Red Biennium led to a sizable decrease within the length of a generation, while there is limited evidence of long-term effects. On the other hand, OLS estimates may wrongly indicate that the effect is 0 or at most positive. Turnout at European elections confirms the null result in the long term.

Heterogeneity analysis indicates that where the Red Scare was decisive in mobilizing historically inactive masses, the negative effect is counterbalanced. Results are robust to different clustering (province, electoral district, spatial autocorrelation), the use of Spanish flu mortality as alternative IV, controlling for female occupation as well as additional agricultural and urban covariates.

I presented quantitative and suggestive evidence that the political repression and violence by fascists related to the Red Scare may be one of the main drivers of the decrease in social capital, similar to what was suggested by Tur-Prats and Valencia Caicedo (2020) for the Spanish Civil War. I discussed the role of intergenerational (vertical) transmission and collective memory, even though I cannot exclude that both are present in this setting.

The results highlight the multifaceted consequences of insurgence, and the related revolutionary threat, in contexts of weak states. On one side, the scare effect depresses social capital, because of the violent repression coming after and the mechanism of mistrust towards different political identities (described in section 6). On the other hand, the findings evidence how historical mobilization can increase political engagement and social capital. Italian history, its break with fascism, and its quite active political landscape after WWII may explain the lack of persistence in the result. Further research should better address and disentangle these potential explanations.

While there is little threat of a socialist revolution nowadays, insurgence remains widespread, especially outside of advanced democracies. My research speaks to the importance of how it is dealt with, in terms of the consequences on social capital and, hence, norms of cooperation.

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Appendix

Spatial merge

Municipalities with a turnout greater than 1 are dropped from the analysis and represent about 1% of the observations.
Referenda in the period 2009-2022 are merged employing a *spatial join* in `R` to the municipalities from Acemoglu et al. (2022), which have latitude and longitude data. For the referenda in 1946-1981, no shapefile at such a disaggregation is available, so I merge them by name with the 2009-2022 referendum data. The same process is performed for European elections separately, hence the different sample size.
As in Table 1, the main (i.e., the referenda turnout) final sample of interest consists of 3732 observations. The sample size is smaller than the one in Acemoglu et al. (2022) and this will likely limits the statistical power of the analysis. By briefly comparing my descriptive statistics with the one of Table A1 in Acemoglu et al. (2022), my sample features smaller political action in the Red Biennium, with lower socialist support in 1919 and agrarian strikes, therefore limiting the explanatory power of the analysis.

Table A1: Descriptive Statistics, controls.

	Obs	Mean	Std. Dev.	Min	Max
Controls					
(log) Population in 1911	3732	7.848	0.951	4.60	13.20
Share of population below the age of 6 in 1911	3732	0.159	0.030	0.07	0.86
(log) Municipality area	3732	7.708	1.065	2.30	12.24
Elevation of the major centre	3732	316.849	281.134	1.00	1815.00
Maximum elevation	3732	779.912	802.665	1.00	4810.00
Assault tr. + volunt. casualties	3732	0.000	0.001	0.00	0.01
Army supplying production plant	3732	0.072	0.241	0.00	1.00
Casualties in deadly battles (binary)	3732	0.975	0.136	0.00	1.00
Veterans (classes 1874-1895)	3732	0.233	0.059	0.10	0.41
Veterans (classes 1896-1900)	3732	0.136	0.023	0.07	0.20
Share of day laborers in 1921	3732	0.229	0.118	0.01	0.58
Share of share-croppers in 1921	3732	0.056	0.075	0.00	0.42
Presence of landowners' associations (binary)	3732	0.056	0.226	0.00	1.00
Industrial workers over male population in 1911	3732	0.102	0.155	0.00	3.02
Industry firms over male population in 1911	3732	0.012	0.009	0.00	0.07
Male literacy in 1911	3732	0.718	0.201	0.13	1.00
Share of elites (entrepreneurs and rentiers) in 1921	3732	0.026	0.012	0.00	0.09
Share of bourgeoisie in 1921	3732	0.083	0.031	0.03	0.23
Female occupation 1977, age above 15	3732	29.929	5.252	14.40	38.70

Notes: All the variables are referred to the sample with referenda turnout data.

Table A2: Referendum questions, 1946-1981 and 2009-2022

Year	Referendum question	Promoting party
1946	Choice over the type of the State: monarchy or republic	
1974	Abolition of the law on divorce	Catholics
1978	1) Abolition of public funding of parties 2) Repeal of the Reale law regarding public order and terrorism	Radical Party
1981	1) Repeal of the Cossiga law regarding public order and terrorism 2) Abolition of life sentence 3) Abolition of laws regarding the authorization to carry weapons 4) Abrogation of laws to ease abortion	Radical Party
	5) Abrogation of laws to restrict abortion	Movement for life
2009	1) Assignment of majority premium to the most voted list (instead of the coalition), Chamber of Deputies 2) Abrogation of the law to run in different electoral districts for the same candidate	Mario Segni, Giovanni Guzzetta
2011	1) Abrogation of laws which allows local public services to be run by private operators	Committee "2 Yes for Water as Common Good"
	2) Abrogation of laws which allows the fare of the water to include the remuneration of the capital invested by the operator 3) Abrogation of laws which allows the production of nuclear energy	Italy of Values
	4) Abolition of the law on differential legitimate impediment for government positions	
04/2016	Repeal of a law that allows gas and oil drilling concessions extracting hydrocarbon to be prolonged	9 Regional councils
12/2016	Constitutional reform on the composition and power of the Parliament, and division of powers between State, regions, and administrative entities	Center-left government (Renzi - Boschi reform)
09/2020	Reduction of the number of MPs	Five Star Movement (government coalition with Left)
2022	1) Repeal the automatic disqualification or suspension of politicians found guilty of crimes from the offices they hold	9 Regional councils
	2) Separation of the career of prosecutors and judges 3) Remove the exclusion of lay members from taking part in the evaluation of magistrates 4) Repeal the 25 to 50 signatures requirement for a magistrate to run for the High Council of the Judiciary (*Consiglio Superiore della Magistratura*)	

Notes: With the exception of the 1946, 12/2016 and 2020 referendum, all the other referenda were abrogative, hence requiring a quorum of 50% to be valid. Italy of Values was a populist and anti-corruption political party, then incorporated into the Five Star Movement.

Table A3: OLS results for the effect of Socialist support in 1919 on referenda turnout 1946-2022

Dep.var.: Turnout	06/1946	05/1974	06/1978	05/1981	06/2009	06/2011	04/2016	12/2016	09/2020	06/2022
Province and regiment FE, no controls										
socialist^{1919}	0.12***	0.08***	0.07***	0.06**	0.13***	0.13***	0.12***	0.02	-0.04	-0.00
	(0.04)	(0.02)	(0.02)	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)
R^2	0.37	0.66	0.69	0.71	0.69	0.41	0.58	0.70	0.62	0.17
Province and regiment FE, demographics controls										
socialist^{1919}	0.10**	0.06***	0.06***	0.05**	0.14***	0.14***	0.12***	0.02	-0.03	0.00
	(0.04)	(0.02)	(0.02)	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)
R^2	0.38	0.67	0.69	0.72	0.70	0.41	0.58	0.70	0.62	0.17
Province and regiment FE, Demographic and geography controls										
socialist^{1919}	-0.00	-0.01	-0.01	-0.01	0.13***	0.11***	0.06*	-0.04	-0.03	0.01
	(0.04)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)	(0.03)	(0.02)	(0.03)
R^2	0.48	0.72	0.73	0.75	0.70	0.42	0.61	0.73	0.62	0.17
Province and regiment FE, Previous controls + PSI vote share in 1913										
socialist^{1919}	-0.02	-0.02	-0.02	-0.01	0.11***	0.10***	0.04	-0.06**	-0.03	0.00
	(0.04)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)	(0.03)	(0.02)	(0.03)
R^2	0.48	0.72	0.73	0.75	0.70	0.42	0.61	0.73	0.62	0.17
Province and regiment FE, Previous controls + military										
socialist^{1919}	-0.02	-0.02	-0.02	-0.01	0.10***	0.10**	0.03	-0.06**	-0.04	0.00
	(0.04)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)	(0.03)	(0.02)	(0.03)
R^2	0.49	0.72	0.73	0.75	0.70	0.42	0.61	0.73	0.62	0.18
Province and regiment FE, Previous controls + agricultural										
socialist^{1919}	-0.02	-0.01	-0.02	-0.01	0.10***	0.10**	0.03	-0.06**	-0.04*	0.00
	(0.04)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)	(0.03)	(0.02)	(0.03)
R^2	0.49	0.72	0.73	0.75	0.71	0.42	0.61	0.73	0.62	0.18
Province and regiment FE, Previous controls + urban										
socialist^{1919}	-0.03	-0.01	-0.02	-0.01	0.10***	0.09***	0.03	-0.05**	-0.04	0.00
	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)	(0.03)	(0.02)	(0.03)
R^2	0.50	0.73	0.74	0.76	0.71	0.43	0.62	0.74	0.62	0.18
Obs.	3732	3732	3732	3732	3732	3732	3732	3732	3732	3732

Notes: OLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919. Regressions are run separately for each referenda. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: 2SLS results for the effect of Socialist support in 1919 on referenda turnout 1946-2022

Dep.var.: Turnout	06/1946	05/1974	06/1978	05/1981	06/2009	06/2011	04/2016	12/2016	09/2020	06/2022
Province and regiment FE, no controls										
socialist^{1919}	-2.89	-3.96	-1.97	-2.35	0.23	-1.12	-1.30	-0.25	-0.20	0.31
	(3.50)	(4.16)	(2.32)	(2.56)	(0.83)	(1.57)	(1.95)	(0.86)	(0.90)	(0.95)
1stage F-stat	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Province and regiment FE, demographics controls										
socialist^{1919}	-0.65*	-0.33	-0.08	-0.18	0.17	-0.12	-0.08	-0.11	-0.27	0.16
	(0.37)	(0.22)	(0.21)	(0.19)	(0.18)	(0.26)	(0.27)	(0.22)	(0.19)	(0.26)
1stage F-stat	18.80	18.80	18.80	18.80	18.80	18.80	18.80	18.80	18.80	18.80
Province and regiment FE, demographic and geography controls										
socialist^{1919}	-0.79**	-0.36*	-0.13	-0.23	0.14	-0.10	-0.13	-0.15	-0.28	0.12
	(0.31)	(0.21)	(0.19)	(0.17)	(0.18)	(0.26)	(0.25)	(0.21)	(0.19)	(0.26)
1stage F-stat	21.14	21.14	21.14	21.14	21.14	21.14	21.14	21.14	21.14	21.14
Province and regiment FE, previous controls + PSI vote share in 1913										
socialist^{1919}	-0.83***	-0.38*	-0.14	-0.24	0.14	-0.11	-0.14	-0.16	-0.29	0.13
	(0.32)	(0.22)	(0.20)	(0.18)	(0.19)	(0.27)	(0.26)	(0.22)	(0.19)	(0.27)
1stage F-stat	28.85	28.85	28.85	28.85	28.85	28.85	28.85	28.85	28.85	28.85
Province and regiment FE, previous controls + military										
socialist^{1919}	-0.68**	-0.30	-0.09	-0.18	0.12	-0.07	-0.22	-0.18	-0.34	0.11
	(0.33)	(0.22)	(0.21)	(0.18)	(0.19)	(0.28)	(0.27)	(0.23)	(0.22)	(0.28)
1stage F-stat	24.81	24.81	24.81	24.81	24.81	24.81	24.81	24.81	24.81	24.81
Province and regiment FE, previous controls + agricultural										
socialist^{1919}	-0.70**	-0.27	-0.08	-0.17	0.13	-0.08	-0.21	-0.13	-0.38	0.09
	(0.33)	(0.23)	(0.22)	(0.19)	(0.20)	(0.30)	(0.28)	(0.24)	(0.23)	(0.30)
1stage F-stat	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Province and regiment FE, previous controls + urban										
socialist^{1919}	-0.67*	-0.27	-0.08	-0.16	0.13	-0.04	-0.21	-0.13	-0.37	0.07
	(0.34)	(0.23)	(0.22)	(0.19)	(0.20)	(0.30)	(0.28)	(0.24)	(0.23)	(0.29)
1stage F-stat	23.55	23.55	23.55	23.55	23.55	23.55	23.55	23.55	23.55	23.55
Obs.	3732	3732	3732	3732	3732	3732	3732	3732	3732	3732

Notes: 2SLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919. Regressions are run separately for each referenda. The excluded instrument is the share of foot-soldier casualties in the male population over 6. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A5: OLS results for the effect of Socialist support in 1919 on European elections turnout 1979-2019

Dep.var.: turnout	1979	1984	1989	1994	1999	2004	2009	2014	2019
Province and regiment FE, no controls									
socialist^{1919}	0.08***	0.07***	0.05*	0.08**	-0.03	0.01	-0.01	0.01	0.00
	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
R^2	0.63	0.63	0.59	0.62	0.44	0.41	0.60	0.52	0.57
Province and regiment FE, demographics controls									
socialist^{1919}	0.07***	0.07***	0.05	0.07**	-0.02	0.02	-0.00	0.02	0.01
	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
R^2	0.64	0.63	0.59	0.63	0.45	0.41	0.60	0.52	0.57
Province and regiment FE, demographics and geography controls									
socialist^{1919}	-0.00	-0.00	-0.02	-0.00	-0.06**	-0.03	-0.03	-0.02	-0.02
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
R^2	0.68	0.68	0.63	0.68	0.47	0.43	0.61	0.53	0.58
Province and regiment FE, previous controls + PSI vote share in 1913									
socialist^{1919}	-0.02	-0.01	-0.02	-0.02	-0.05**	-0.03	-0.04*	-0.02	-0.02
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)
R^2	0.68	0.68	0.63	0.68	0.47	0.43	0.61	0.53	0.58
Province and regiment FE, previous controls + military									
socialist^{1919}	-0.01	-0.01	-0.02	-0.02	-0.05*	-0.02	-0.04	-0.02	-0.02
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
R^2	0.69	0.68	0.63	0.68	0.47	0.43	0.61	0.53	0.58
Province and regiment FE, previous controls + agricultural									
socialist^{1919}	-0.01	-0.00	-0.02	-0.02	-0.05*	-0.02	-0.04	-0.02	-0.02
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
R^2	0.69	0.68	0.63	0.68	0.47	0.44	0.61	0.53	0.58
Province and regiment FE, previous controls + urban									
socialist^{1919}	-0.01	-0.00	-0.02	-0.02	-0.05*	-0.02	-0.04	-0.02	-0.02
	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.02)	(0.02)	(0.03)
R^2	0.69	0.69	0.64	0.68	0.47	0.44	0.62	0.53	0.58
Obs.	4000	4000	4000	4000	4000	4000	4000	4000	4000

Notes: OLS regressions of 1979-2019 European elections turnout on socialist vote share in 1919. Regressions are run separately for each referenda. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: 2SLS results for the effect of Socialist support in 1919 on European elections turnout 1979-2019

Dep.var.: turnout	1979	1984	1989	1994	1999	2004	2009	2014	2019
Province and regiment FE, no controls									
socialist^{1919}	-1.48	-1.13	-0.04	-0.04	2.34	1.33	1.03	0.80	1.10
	(1.10)	(0.92)	(0.49)	(0.59)	(1.49)	(0.84)	(0.69)	(0.63)	(0.76)
1stage F-stat	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79	2.79
Province and regiment FE, demographics controls									
socialist^{1919}	-0.15	-0.13	-0.10	-0.05	0.09	0.02	-0.01	0.00	0.01
	(0.15)	(0.15)	(0.16)	(0.17)	(0.17)	(0.17)	(0.15)	(0.15)	(0.16)
1stage F-stat	30.91	30.91	30.91	30.91	30.91	30.91	30.91	30.91	30.91
Province and regiment FE, demographics and geography controls									
socialist^{1919}	-0.21	-0.19	-0.16	-0.13	0.05	-0.02	-0.03	-0.03	-0.01
	(0.15)	(0.14)	(0.15)	(0.15)	(0.17)	(0.18)	(0.16)	(0.16)	(0.17)
1stage F-stat	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50
Province and regiment FE, previous controls + PSI vote share in 1913									
socialist^{1919}	-0.25	-0.23	-0.18	-0.17	0.08	-0.02	-0.03	-0.03	-0.01
	(0.17)	(0.16)	(0.18)	(0.17)	(0.20)	(0.21)	(0.18)	(0.19)	(0.19)
1stage F-stat	43.53	43.53	43.53	43.53	43.53	43.53	43.53	43.53	43.53
Province and regiment FE, previous controls + military									
socialist^{1919}	-0.15	-0.17	-0.09	-0.13	0.19	0.12	0.06	0.02	0.07
	(0.17)	(0.17)	(0.19)	(0.17)	(0.20)	(0.21)	(0.18)	(0.19)	(0.20)
1stage F-stat	39.07	39.07	39.07	39.07	39.07	39.07	39.07	39.07	39.07
Province and regiment FE, previous controls + agricultural									
socialist^{1919}	-0.13	-0.15	-0.08	-0.11	0.24	0.17	0.10	0.05	0.10
	(0.18)	(0.18)	(0.19)	(0.18)	(0.21)	(0.22)	(0.19)	(0.20)	(0.20)
1stage F-stat	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00
Province and regiment FE, previous controls + urban									
socialist^{1919}	-0.11	-0.14	-0.07	-0.11	0.26	0.24	0.15	0.08	0.11
	(0.18)	(0.18)	(0.19)	(0.18)	(0.21)	(0.22)	(0.19)	(0.20)	(0.20)
1stage F-stat	36.16	36.16	36.16	36.16	36.16	36.16	36.16	36.16	36.16
Obs.	4000	4000	4000	4000	4000	4000	4000	4000	4000

Notes: 2SLS regressions of 1979-2019 European elections turnout on socialist vote share in 1919. Regressions are run separately for each referenda. The excluded instrument is the share of foot-soldier casualties in the male population over 6. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: 2SLS results for the effect of Socialist support in 1919 on referenda turnout 1946-2022, controlling for female occupation

Dep.var.: Turnout	06/1946	05/1974	06/1978	05/1981	06/2009	06/2011	04/2016	12/2016	09/2020	06/2022
Regiment FE, demographics, geography, military controls + PSI vote share in 1913										
socialist^{1919}	-1.26**	-0.89*	-0.63	-0.83*	-0.66	-0.54	-0.56	-1.38**	-1.38**	-0.08
	(0.61)	(0.51)	(0.45)	(0.48)	(0.50)	(0.45)	(0.53)	(0.66)	(0.65)	(0.38)
Female occ. 1977	0.40***	0.52***	0.48***	0.50***	0.38***	0.23*	0.28*	0.68***	0.27*	0.05
	(0.15)	(0.13)	(0.11)	(0.12)	(0.14)	(0.12)	(0.15)	(0.17)	(0.16)	(0.09)
1stage F-stat	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22
arfp	0.02	0.01	0.10	0.02	0.16	0.28	0.30	0.00	0.00	0.85
archi2p	0.01	0.01	0.08	0.02	0.14	0.25	0.27	0.00	0.00	0.84
Regiment FE, previous controls + agricultural										
socialist^{1919}	-1.28**	-0.82*	-0.58	-0.78*	-0.63	-0.44	-0.56	-1.27**	-1.37**	-0.07
	(0.60)	(0.48)	(0.44)	(0.46)	(0.50)	(0.45)	(0.53)	(0.61)	(0.64)	(0.38)
Female occ. 1977	0.39***	0.47***	0.44***	0.45***	0.34***	0.16	0.30**	0.60***	0.25	0.05
	(0.14)	(0.12)	(0.10)	(0.11)	(0.13)	(0.11)	(0.14)	(0.15)	(0.16)	(0.09)
1stage F-stat	8.83	8.83	8.83	8.83	8.83	8.83	8.83	8.83	8.83	8.83
arfp	0.01	0.02	0.13	0.03	0.18	0.38	0.29	0.00	0.00	0.86
archi2p	0.01	0.02	0.11	0.02	0.15	0.35	0.26	0.00	0.00	0.86
Regiment FE, previous controls + urban										
socialist^{1919}	-1.05**	-0.46	-0.26	-0.39	-0.58	-0.37	-0.52	-0.83**	-1.08**	0.02
	(0.47)	(0.31)	(0.29)	(0.29)	(0.39)	(0.38)	(0.42)	(0.38)	(0.45)	(0.33)
Female occ. 1977	0.21**	0.21***	0.22***	0.19***	0.30***	0.10	0.26***	0.31***	0.06	-0.00
	(0.09)	(0.06)	(0.05)	(0.06)	(0.10)	(0.07)	(0.09)	(0.08)	(0.09)	(0.06)
1stage F-stat	13.11	13.11	13.11	13.11	13.11	13.11	13.11	13.11	13.11	13.11
arfp	0.02	0.09	0.36	0.16	0.14	0.39	0.23	0.01	0.00	0.96
archi2p	0.01	0.07	0.33	0.13	0.11	0.36	0.20	0.00	0.00	0.96
Obs.	3732	3732	3732	3732	3732	3732	3732	3732	3732	3732

Notes: 2SLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919. Regressions are run separately for each referenda. The excluded instrument is the share of foot-soldier casualties in the male population over 6. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: 2SLS results for the effect of Socialist support in 1919 on referenda turnout 1946-2022, without Province FE

Dep.var.: Turnout	06/1946	05/1974	06/1978	05/1981	06/2009	06/2011	04/2016	12/2016	09/2020	06/2022
Regiment FE, demographics, geography, military controls + PSI vote share in 1913										
socialist^{1919}	-1.43**	-1.11*	-0.83	-1.04*	-0.81	-0.64	-0.68	-1.67**	-1.50**	-0.10
	(0.71)	(0.64)	(0.54)	(0.60)	(0.58)	(0.51)	(0.59)	(0.83)	(0.74)	(0.42)
1stage F-Stat	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
arfp	0.01	0.00	0.04	0.01	0.11	0.25	0.25	0.00	0.00	0.82
archi2p	0.01	0.00	0.03	0.01	0.09	0.22	0.22	0.00	0.00	0.81
Regiment FE, previous controls + agricultural										
socialist^{1919}	-1.41**	-0.98*	-0.73	-0.93*	-0.74	-0.49	-0.65	-1.47**	-1.45**	-0.09
	(0.68)	(0.56)	(0.50)	(0.54)	(0.55)	(0.48)	(0.57)	(0.72)	(0.69)	(0.41)
1stage F-Stat	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57	7.57
arfp	0.01	0.01	0.08	0.02	0.14	0.36	0.25	0.00	0.00	0.84
archi2p	0.01	0.01	0.06	0.01	0.12	0.33	0.22	0.00	0.00	0.83
Regiment FE, previous controls + urban										
socialist^{1919}	-1.03**	-0.45	-0.25	-0.38	-0.57	-0.36	-0.50	-0.81**	-1.08**	0.02
	(0.45)	(0.29)	(0.27)	(0.28)	(0.38)	(0.38)	(0.40)	(0.36)	(0.44)	(0.33)
1stage F-Stat	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69	13.69
arfp	0.02	0.09	0.36	0.16	0.14	0.39	0.22	0.01	0.00	0.96
archi2p	0.01	0.07	0.33	0.13	0.11	0.37	0.20	0.00	0.00	0.96

Notes: 2SLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919. Regressions are run separately for each referenda. The excluded instrument is the share of foot-soldier casualties in the male population over 6. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A9: 2SLS results for the effect of Socialist support in 1919 on referenda turnout 1946-2022, instrumenting with Spanish flu mortality

Dep. var.: Turnout	Turnout 06/1946	Turnout 05/1974	Turnout 06/1978	Turnout 05/1981
Province FE, demographics controls				
$socialist^{1919}$	-0.01	-0.02	-0.05**	-0.04*
	(0.01)	(0.01)	(0.02)	(0.02)
1stage F-stat	17.93	17.93	17.93	17.93
Previous + geography, military and $socialist^{1913}$				
$socialist^{1919}$	-0.00	-0.03*	-0.06**	-0.05**
	(0.01)	(0.01)	(0.02)	(0.03)
1stage F-stat	15.31	15.31	15.31	15.31
Previous + agriculture and urban controls				
$socialist^{1919}$	-0.01	-0.03*	-0.06**	-0.06**
	(0.01)	(0.02)	(0.03)	(0.03)
1stage F-stat	21.26	21.26	21.26	21.26
Obs.	191	191	191	191

Notes: 2SLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919. Regressions are run separately for each referenda. The excluded instrument is the excess mortality due to the Spanish Flu in 1918. Excess mortality is defined as the excess mortality in 1918 from the pre-war mortality computed between 1911 and 1914. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A10: 2SLS results for the effect of Socialist support in 1919 on referenda turnout 1946-2022, instrumenting with relative rainfall

Dep. var.: Turnout	Turnout 06/1946	Turnout 05/1974	Turnout 06/1978	Turnout 05/1981
Province and regiment FE, demographics controls				
$socialist^{1919}$	0.058***	0.003	0.009	-0.027
	(0.020)	(0.029)	(0.034)	(0.046)
1stage F-stat	8.866	8.866	8.866	8.866
Previous + geography, military and socialist1913				
$socialist^{1919}$	0.046	-0.087	-0.095	-0.183
	(0.034)	(0.062)	(0.073)	(0.113)
1stage F-stat	4.342	4.342	4.342	4.342
Previous + agriculture and urban controls				
$socialist^{1919}$	0.048	-0.079	-0.088	-0.177
	(0.035)	(0.064)	(0.076)	(0.119)
1stage F-stat	3.822	3.822	3.822	3.822
Obs.	3526	3526	3526	3526

Notes: 2SLS regressions of 1946-2022 referenda turnout on socialist vote share in 1919. Regressions are run separately for each referenda. The excluded instrument is the relative rainfall in winter-spring 1918-1919 (from December 1918 to May 1919). Relative rainfall is measured at weather station level, using the average for the winter-spring months for the years 1915-1979 as denominator, and then interpolated at municipality level using the inverse of the distances as weights with a cutoff of 30km. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A11: Reduced form results for the effect of foot soldier casualties on referenda turnout 1946-2022

Dep.var.: Turnout	06/1946	05/1974	06/1978	05/1981	06/2009	06/2011	04/2016	12/2016	09/2020	06/2022
Province and regiment FE, no controls										
Share of footsoldier casualties	-0.00	-0.01***	-0.00**	-0.01***	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R^2	0.36	0.66	0.69	0.71	0.69	0.40	0.58	0.70	0.62	0.17
Province and regiment FE, demographics controls										
Share of footsoldier casualties	-0.00*	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R^2	0.38	0.67	0.69	0.71	0.69	0.41	0.58	0.70	0.62	0.17
Province and regiment FE, Demographic and geography controls										
Share of footsoldier casualties	-0.00***	-0.00*	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R^2	0.48	0.72	0.73	0.75	0.70	0.41	0.61	0.73	0.62	0.17
Province and regiment FE, Previous controls + PSI vote share in 1913										
Share of footsoldier casualties	-0.00***	-0.00*	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R^2	0.48	0.72	0.73	0.75	0.70	0.42	0.61	0.73	0.62	0.17
Province and regiment FE, Previous controls + military										
Share of footsoldier casualties	-0.00**	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R^2	0.49	0.72	0.73	0.75	0.70	0.42	0.61	0.73	0.62	0.18
Province and regiment FE, Previous controls + agricultural										
Share of footsoldier casualties	-0.00**	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R^2	0.49	0.72	0.73	0.75	0.70	0.42	0.61	0.73	0.62	0.18
Province and regiment FE, Previous controls + urban										
Share of footsoldier casualties	-0.00**	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
R^2	0.50	0.73	0.74	0.76	0.70	0.43	0.62	0.74	0.62	0.18
Obs.	3732	3732	3732	3732	3732	3732	3732	3732	3732	3732

Notes: OLS regressions of 1946-2022 referenda turnout on the share of foot-soldier casualties in the male population over 6. Regressions are run separately for each referenda. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A12: 2SLS results for the effect of having a Socialist mayor in 1920 on referenda turnout 1946-1981

Dep. var.: Turnout	06/1946	05/1974	06/1978	05/1981
Province and regiment FE, demographics and geography				
Socialist majority in 1920 (binary)	-2.50**	-1.14*	-0.41	-0.72
	(0.98)	(0.62)	(0.59)	(0.52)
1stage F-stat	9.70	9.70	9.70	9.70
Previous + $socialist^{1913}$				
Socialist majority in 1920 (binary)	-2.63**	-1.19*	-0.43	-0.75
	(1.07)	(0.63)	(0.62)	(0.54)
1stage F-stat	9.48	9.48	9.48	9.48
Previous + *military*				
Socialist majority in 1920 (binary)	-2.30**	-1.01	-0.32	-0.62
	(1.15)	(0.68)	(0.69)	(0.59)
1stage F-stat	8.35	8.35	8.35	8.35
Obs.	3732	3732	3732	3732

Notes: 2SLS regressions of 1946-2022 referenda turnout on the dummy for a socialist mayor in 1920. Regressions are run separately for each referenda. The excluded instrument is the share of foot-soldier casualties in the male population over 6. Variables are standardized to have mean 0 and std.dev.1. Standard errors clustered at the district level (*circondario 1921*) are in parentheses. See section 4.2 for the definition of control variables and Table A2 for the content of the referenda. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.