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TERROR AND TURNOUT: THE IMPACT OF TERRORISM DURING THE YEARS OF LEAD

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Terror and Turnout:
The Impact of Terrorism During the Years of Lead

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Abstract

This study investigates the causal relationship between terrorist violence during the Years of Lead and the decline in voter turnout in Italian political elections. The analysis, which covers electoral participation at the NUTS-3 level from 1972 to 1992, relies on data from the Global Terrorism Dataset for information regarding domestic terrorist attacks. Using causal mediation analysis (CMA) and the front-door criterion (FDC), we identify how the magnitude of attacks – measured by casualties, injuries, and material damages – affects electoral participation. Our findings reveal a nuanced impact of terrorism. Specifically, the results are mainly driven by material damage and to a lesser extent by the number of casualties.

Keywords and phrases: causal mediation analysis; front-door criterion; terrorism; turnout.
J.E.L. Codes: C32; D74; N94.

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1 Introduction

In the two decades after World War II, many countries worldwide faced episodes of political violence, particularly domestic and organized terrorism. From the United States to Germany, from Puerto Rico to Corsica, Spain, Ireland, and South Tyrol, such a widespread phenomenon strongly impacted people's daily lives. Between the 1970s and 1980s, Italy, in particular, was plagued by a wave of political violence, commonly known as the *Years of Lead* (*Anni di Piombo*, in Italian), which was characterized by bombings and assassinations carried out by both left-wing and right-wing extremist groups (see Figure 6 for a glimpse of the geographical distribution across Italian provinces).[2] This period of political violence had a profound impact on the social, political, and economic landscape of Italy [Greenbaum et al., 2007]. According to the Italian newspaper *La Repubblica*, in 1984, the majority of Italians involved in a national-level survey selected the recent wave of political terrorism as the event within the last 50 years of the country's collective experience that would have received the most attention from future historians. In the same period, Italy witnessed the first drop in voter turnout in its republican history.

European domestic terrorism has some specific characteristics, such as the rejection of negotiation, the secretive nature of the organization, selective recruitment but always among the youth, ideological justification, and theoretical and cultural background, common across the different countries. However, as noted by Galleni [1981], Italian terrorism has some peculiar and distinctive characteristics. The main aim of the Red Brigades and the other less known terrorist groups was to hit the heart of the State: a project as ambitious as vague [Galleni, 1981]. Italian terrorism during this period appeared to lack a cohesive purpose. For most of the period under consideration, the action of terrorist groups was mainly oriented toward spreading terror following three directions. The first was to strike random targets (human and non-human), democratizing the threat and sowing terror. The second was to strike at the uniforms and symbols of the "regime", including schools, universities, and the media. The last one was leading upward to the top of the state, to show that no one can actually claim to be safe [Galleni, 1981]. This paper aims to analyze, in the context of the general decline of electoral participation, the relationship between citizens' exposure to terrorist violence, collected by the open-source Global Terrorism Database (GDT), and their electoral behaviors across Italian provinces, considering the turnout at the political elections of 1972, 1976, 1979, 1983, and 1992[3].

Our premise is that, while terrorism can in general increase concern with the political environment and increase the salience of upcoming elections [Robbins et al., 2013], the local exposure to different *consequences* of violence, can re-shape this relationship.

The causal relation between political terrorism and voting participation in Italy is intricate and multifaceted. We tackle the identification issues by drawing on the causal mediation analysis framework (hereafter, CMA. See Celli [2022], VanderWeele [2016], VanderWeele [2015], Powell [2008], Pearl, 2009). Specifically, to isolate our causal effect of interest, we apply the so-called front-door criterion (hereafter, FDC) technique to estimate the impact of terrorist incidents on voter turnout through the effect of the deaths, the wounded and the property damages of the terror-

[2] As with other specific historical periods, the so-called "Years of Lead" does not have a unanimously agreed-upon beginning and end. This era of intense socio-economic turmoil bridged the student movement of the late 1960s and the subsequent clash between organized mafia-type criminal groups and the Italian state. For the purposes of our analysis, we define 1988 as the end of the "Years of Lead," marking the year when the Red Brigades, Italy's most prominent terrorist group, officially ceased operations. To ensure comprehensive coverage of this period, we include the 1992 elections in our panel data, capturing the broader political and social dynamics of the era.

[3] Between 1976 and 1979 Italy experienced the first substantial drop in the electoral participation of its republican history. Despite the modesty of the aggregated loss of voters, the change of pattern has been considered noteworthy and permanent [Cerruto, 2012].

ism itself, here considered as the mediators. See Pearl [2009] for a general treatment of FDC and Bellemare et al. [2024], Fulcher et al. [2020], Glynn and Kashin [2018], Glynn and Kashin [2017] for some recent developments and applications.

Our main assumption is that the impact of a given terrorist incident on electoral participation is mediated primarily by its target, timing, and magnitude. This assumption suggests that the effect of a terrorist event is mainly realized through its tangible consequences — namely, the number of deaths, injuries, and material damage. Consequently, this reasoning, as we will explain later, excludes the possibility that a terrorist event can influence electoral outcomes independently of the presence or absence of physical or material consequences. Such tangible effects[4] could occur in cases of terrorist attacks without property damage or physical harm, such as kidnappings for intimidation purposes or aircraft hijackings. However, an examination of the GTD dataset indicates that such events are relatively rare in the Italian context.[5] This leads us to conclude that, while a direct relationship between terrorist events and electoral behaviour cannot be entirely ruled out, the limited frequency of such cases renders their effect negligible for the purposes of our analysis.

Our hypothesis is twofold. On the one hand, we posit that terrorism discouraged electoral participation by fostering a generalized sense of fear and distrust in institutions. On the other hand, terrorism could also provoke a reaction of social cohesion, creating the so-called rally-around-the-flag effect that increased voter turnout. The first hypothesis to be tested is to determine which of these two effects predominated during Italy's terrorism wave from the 1970s to the 1990s.

Furthermore, this phenomenon emerged against a backdrop of intense political polarization. In this context, disillusionment with one's preferred party might lead voters either to abstain, shift support to a more radical alternative, or avoid voting for the opposing side. The political landscape in Italy during this period was characterized by deep societal and party divisions. The dominant parties were the Christian Democracy (DC), a center-right party representing moderates and the economic elite, and the Italian Communist Party (PCI), a left-wing party representing the working class interests. The polarization of the electorate was further intensified by the rise of new political parties and movements, such as the far-right Movimento Sociale Italiano (MSI). These emerging groups, particularly popular among younger generations, contributed to the fragmentation of the political landscape.[6] Our second hypothesis examines the impact of terrorism on voter distribution, specifically whether terrorist events weakened support for governing parties in favour of opposition forces, thus radicalizing the electorate. Alternatively, it is possible that, out of fear of extremist factions, voters reinforced their support for ruling parties.

Based on aggregated data at the Italian provincial level from 1972 to 1992, our findings suggest that higher levels of terrorist activity lead to increased electoral participation in subsequent general elections. This effect becomes increasingly pronounced as the election date approaches. Furthermore, our analysis shows that the incumbent party (DC) experiences a negative impact from terrorist violence, while the left-wing opposition party (PCI) benefits from its occurrence. Conversely, no significant effect of terrorism is observed on the extreme right-wing party (MSI).

The paper is organized as follows. A review of the relevant literature regarding theoretical and methodological background is provided in Section 2. Section 3 presents the identification strategy, a description of our data set and

[4]There are other intangible effects, besides deaths, injuries, and material damage, such as stress and psychological effects on the people who are victims or witnesses of a terrorist event. Unfortunately, this type of information is not observable.

[5]In fact, it is observed that only in 9.746% of cases is a terrorist event without physical and/or material consequences.

[6]At the local level, electoral preferences were heavily shaped by regional and cultural factors. For instance, the PCI enjoyed strong support in the industrial cities of northern Italy, while the DC maintained a solid base in southern regions and rural areas, where its traditional roots resonated deeply. Generally, terrorist violence appeared to erode support for traditional political parties like the DC and PCI, as voters grew increasingly disillusioned with their inability to address the crisis of political violence effectively.

the estimated models. Finally, Section 4 concludes.

2 Background Literature

2.1 Terror and Turnout

As noted by Robbins et al. [2013], work on voter turnout has focused on a myriad of causal mechanisms including political culture, economics, and political institutions (Almond and Verba, 1963, Jackman, 1987, Jackman and Miller, 1995, Pacek et al., 2009, Pacek and Radcliff, 1995, Powell, 1986). However, while empirical evidence for these claims remains quite convincing, violence still remains an unexplored contextual variable for understanding the various forms and aspects of political behavior. Studies on turnout have generally overlooked terrorism despite the increased attention terrorism research has received lately. This is even more surprising because, from the perspective of political science, there is a wealth of evidence suggesting that violent political conflict can have a significant impact on public opinion (such as rally-around-the-flag effects Robbins et al. [2013]. On the other hand, from a more applied perspective, less attention is given to the impact of violence (particularly regarding the victimization process) on participation (see, among others, Bateson, 2012 and Pazzona, 2020).

However, the literature is still inconclusive in identifying the impact of fear and exceptional events on people's electoral choices[7]. While the theoretical framework linking fear and terrorism to voting behavior is relatively straightforward, empirical results are contradictory. There are two broad sources of disagreement in the current literature. First, there is evidence that incumbents lose electoral support following attacks and casualties [Gassebner et al., 2008, Aldrich et al., 2006, Karol and Miguel, 2007]. However, Berrebi and Klor [2008] and Koch and Tkach [2012] find that in Israel incumbents do not seem to be blamed and, consequently, punished at the ballot box as a consequence of suicide attacks. Second, while there is some evidence that right-wing parties increase their vote shares after terrorist events [Berrebi and Klor, 2008, Kibris, 2011, Koch and Tkach, 2012, Abramson et al., 2007], other studies show that terrorism may also shift the entire political spectrum to the left, as was the case of the 2004 train bombings in Madrid [Montalvo, 2011, Gould and Klor, 2010, Bali, 2007]. In addition, while Bellows and Miguel [2009] found that being exposed to war increases the willingness to vote, Kibris [2011] finds that exposure to PKK terrorism in Turkey increases turnout and the vote share for right-wing parties (tougher against the PKK cause), Gardeazabal [2010], Montalvo [2011], and Gassebner et al. [2008], focusing on the case of Spain, found a significant role of terrorist violence on vote shares and that terrorism increases the turnout; Gallego [2018] finds that *guerrilla* violence in Colombia reduces turnout. According to their analysis, paramilitary violence does not affect participation, while benefits non-traditional third parties at the ballot box. These conflicting findings, as noted by Baccini et al. [2021], are possibly (also) a product of the difficulties in assessing the effect of terrorism on electoral outcomes due to selection bias[8]. Arguably, terrorists are likely to choose the targets and the timing of their attacks strategically targeting populations that are more likely to respond in the desired manner, either by voting for right-wing parties (if the terrorists' goal is to 'spoil' talks or facilitate recruitment) or for left-wing parties (if the goal is to extract concessions). In short, there is a concrete risk of overestimating the impact of terrorism on voting behavior. Furthermore, in light of this, it

[7] This applies also for the research investigating the impact of natural disaster (Gasper and Reeves, 2011; Heersink et al., 2017; Ramos and Sanz, 2020; Masiero and Santarossa, 2021) or pandemic (Fernandez-Navia et al., 2021; Beall et al., 2016; Campante et al., 2020; Bisbee and Honig, 2020) and electoral behaviors.

[8] Indeed, while terrorist attacks may not adhere to a pattern of complete randomness, certain research efforts, such as the work of Abadie [Abadie and Gardeazabal, 2003], utilize a donor pool of similar regions to construct a counterfactual, offering a nuanced approach to understanding the economic impact of these events.

is also difficult to find an appropriate empirical strategy for the identification.

The analysis of the adverse effects of terrorist violence on political trust and attitudes as well as on individual behavior though [Birkelund et al., 2019, Bove et al., 2021], may represent a renovated stimulus amidst the recent partial stagnation of the field of study and research on terrorism in general [Schuurman, 2020]. Furthermore, besides the not-unanimous findings offered by the related literature and the different empirical approaches, what emerges from the aforementioned literature is the absence of a specific focus on the phenomenon of electoral participation.

2.2 Causal Mediation Analysis

The main aim of our empirical approach is to infer the causal relationship between the *treatment* variable (i.e. terrorism) and the *outcome* variable (i.e. electoral participation). However, standard methods for inference about direct and indirect effects require stringent no-unmeasured-confounding assumptions which often fail to hold in practice, particularly in observational studies [Fulcher et al., 2020]. Over the last couple of decades, social scientists have given greater attention to methodological issues related to causation. As Imai et al. [2013] pointed out, this trend has led to a growing number of laboratory, field, and survey experiments, as well as increased use of natural experiments, instrumental variables, and quasi-randomized studies. However, many of these empirical studies focus on merely establishing whether one variable affects another and fail to explain how such a causal relationship arises. Following Imai et al. [2013], if we define a causal mechanism as a process in which a causal variable of interest, i.e., a treatment variable, influences an outcome, the identification of a causal mechanism requires the specification of an intermediate variable or a mediator that lies on the causal pathway between the treatment and outcome variables. This approach is known as Causal Mediation Analysis. The traditional approach to CMA has been to use structural equation models - SEMs (e.g., Fairchild and MacKinnon, 2009; MacKinnon and Luecken, 2008). Such traditional approaches rely upon non-testable assumptions and are often inappropriate even under those assumptions [Imai et al., 2013]. In particular, contrary to the commonly held belief, conventional exogeneity assumptions alone are insufficient for the identification of causal mechanisms. The reader can refer to the work of Imai et al. [2013], and to the several pieces of research on causal inference, such as Imai et al., 2013, Pearl, 2001, Petersen et al., 2006, Robins et al., 2003, Bullock et al., 2010, Glynn and Quinn, 2011. CMA is an approach that focuses on the study of causal mechanisms and seeks to disentangle a total treatment effect into an indirect effect operating through one or several mediators; as well as the direct effect. As explained by Celli [2022], the main fields in which mediation has been developed are psychology and sociology. For instance, Brader et al. [2008] go beyond the standard causal analysis in estimating the framing effects of ethnicity-based media cues on immigration preferences. Instead of simply asking whether media cues influence opinion, they explore the mechanisms through which this effect operates. Consistent with the earlier work that suggests the emotional power of group-based politics [Kinder and Sanders, 1996], the authors find that the influence of group-based media cues arises through changing individual levels of anxiety. Another example can be borrowed from the literature on electoral politics. Gelman and King [1990] found the existence of a positive incumbency advantage in elections. A few years later, in 1996, Cox and Katz [1996] led the incumbency advantage literature in a new direction by considering possible causal mechanisms that explain why incumbents have an electoral advantage. They decomposed the incumbency advantage into a "scare off/quality effect" and effects due to other causal mechanisms such as name recognition and resource advantage [Celli, 2022]. In order to design our CMA setting, we build our theoretical framework by the use of Directed Acyclic Graphs (DAG). DAGs are a subgroup of graphs with directed edges, and without cyclic paths, depicting the data-generating process, neatly capturing researchers' assumptions in a path diagram. DAGs can be considered as the graphical representations of *structural causal models* (SCMs): each node in the graph corresponds to a variable in the SCM [Pearl, 2009], with the edges between the nodes representing the relationship between the variables.

3 Empirical Approach

3.1 Identification

Identifying the causal impact of terrorism (T) on electoral participation (Y) is challenging due to unobserved confounders (U). This situation is illustrated in the DAG in Figure 1 where both T and Y are influenced by U, reflecting that T is not randomized. If U were to be observed the effect $T \rightarrow Y$ would be identified. In the following sections we describe two competing approaches to identification. The first (*naive*) approach, in its simplest form, consists of including a set of covariates that reduce the confounding effect due to U. The second approach relies, as mentioned in Section 2, on a result developed in the context of the CMA framework known as the FDC. In this section we present the issues related to the identification of the causal impact of terrorism on electoral participation and some viable solutions.

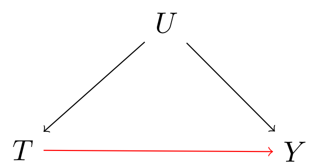

Figure 1: This DAG represents the causal direct effect of the independent variable T on the dependent variable Y, and the confounding effects of unobservable variables U affecting both T and Y.

3.1.1 *Naive* Model

Let us suppose that we have at our disposal a set of covariates X. We can think of a number of ways in which X can help us identify the effect $T \rightarrow Y$. Perhaps the simplest case is to consider Figure 1 with $U = X$. In this case, it is easy to see that by controlling for X we are able to identify the effect of T on Y. The DAG in Figure 1 can be written as systems of equations. By assuming linearity we have, for $U = X$,

$$Y = a_0 + a_1 T + a_2 X + V_Y \quad (1)$$

$$T = b_0 + b_1 X + V_T. \quad (2)$$

In this case we can identify the marginal effect of T on Y as the coefficient from the regression model

$$Y = \alpha + \beta T + \gamma X + \epsilon.$$

In some cases, covariates may not help identify the causal effect of interest. The case described in Figure 2 depicts a simple situation in which controlling for X does not help removing the confounding due to unobserved variables U. In the context of terror (T) and electoral participation (Y), while we can include a set of covariates X to control for observable factors, we cannot claim that X fully captures all the variables that might simultaneously influence both voting patterns and the occurrence of terrorism. For instance, we can control for factors such as the number and type of available political parties, previous voter turnout, key socioeconomic variables (e.g., income levels, unemployment rates), and crime rates, all of which are likely to impact both terrorism and participation (see Section 3.3.1). However,

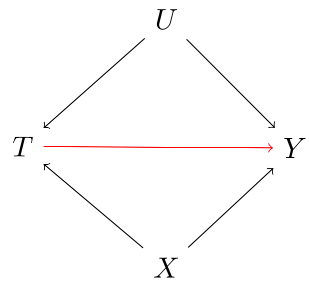

Figure 2: This DAG represents the causal direct effect of the independent variable T on the dependent variable Y, and the confounding effects of unobservable variables U and observable variables X affecting both T and Y.

certain influential variables may remain unobserved and excluded from X. These could include deeply ingrained political attitudes, levels of trust in institutions, or subtle cultural factors that drive both the susceptibility to terror attacks and voter behavior in ways we cannot directly measure.

3.1.2 Front-Door Criterion

If Figure 2 represents a plausible description of reality, including covariates in our model may not help to recover the effect of T on participation Y. Let us consider an alternative model and, for ease of exposition, let us drop X.[9] We assume that the effect of terrorism T on Y be mediated by a variable (or multiple variables) M. This amounts to say that terrorism has certain specific effects, such as, say, loss of human life or damage of property, that mediate its causal impact on participation (see Figure 3). This is an instance of a causal mediation model where there is no direct effect of T onto Y and where the mediator M intercepts the path that goes from T to Y (indirect effect) [see Celli, 2022, for a recent survey on causal mediation analysis]. Following Pearl [2009] the variable M is said to satisfy the FDC

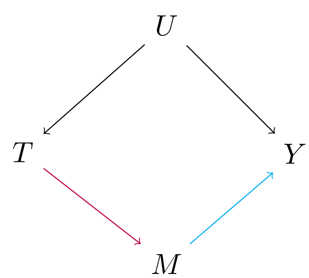

Figure 3: This DAG represents the effect of T on Y as the combination of two indirect effects: the effect of T on M and the effect of M on Y.

with respect to the variables T and Y if

[9] The inclusion of X does not alter the results of the identification strategy.

1. M intercepts all the directed paths from T to Y ,

2. there is no unblocked backdoor path from T to M ,

3. T blocks all the backdoor paths from M to Y .

Morgan and Winship [2015] refer to condition 1 as the exhaustiveness condition, while conditions 2 and 3 are grouped into the so-called isolation condition. Condition 1 is a type of exclusion restriction, implying that terror attacks do not directly cause a variation in electoral participation if not through M. For example, M may represent the casualties of a terror attack and voters would respond directly to this effect. This mechanism is justified because the literature suggests that voters are influenced by the immediate and salient consequences of terror attacks, such as casualties, which evoke emotional responses like fear or anger, rather than by the mere occurrence of the attacks themselves. Studies in political psychology and electoral behavior (e.g., Huddy et al., 2005; Merolla and Zechmeister, 2019) have demonstrated that such responses can drive voter turnout and preference shifts, linking M (e.g., casualties) to electoral outcomes in a mediating role.

With respect to the isolation conditions, it is reasonable to believe that M, indicating, for example, casualties, has no impact on unobserved variables such as U, which may represent latent factors like the underlying political polarization, baseline attitudes toward terrorism, or regional socioeconomic vulnerabilities. In the static context, the causal structure assumes that $U \to M$ does not occur, as U is treated as temporally prior to M, ensuring the absence of feedback loops. Moreover, $M \to U$ is infeasible in a static setting, as this would imply a causal cycle. However, in a dynamic context, this infeasibility may not hold due to temporal dependencies. For example, the sequence could involve $U_t \to T_t \to M_t \to Y_{t+1}$, where U_t represents unobserved factors at time t, T_t represents terror attacks, M_t casualties, and Y_{t+1} electoral outcomes in the subsequent time period. Similarly, the dynamics might include $U_t \to U_{t+1} \to Y_{t+1}$, indicating temporal continuity of unobserved confounders, or $M_t \to U_{t+1}$, where casualties influence future latent factors, such as shifts in public sentiment or political mobilization. These temporal pathways highlight the complexity of disentangling causal relationships and reinforce the importance of satisfying the isolation conditions for the validity of causal mediation analysis under the front-door criterion. In defending the assumption that U is not affected by M, even in a dynamic context, we must consider the nature of U. Variables like institutional stability, regional income levels, or deeply ingrained political culture are typically resistant to short-term perturbations caused by singular events like casualties from terror attacks (M). For instance, institutional frameworks—such as electoral rules, governance structures, and judicial systems—are not directly influenced by casualties, as these frameworks are designed to operate independently of such transitory shocks. Similarly, regional socioeconomic indicators like average income levels, employment rates, or educational attainment evolve over long periods and are unlikely to shift due to isolated events. While M may provoke emotional or behavioural responses in individuals, such as shifts in voter turnout or preferences (Y), the underlying systemic conditions encapsulated by U remain unaffected. This reasoning aligns with the isolation condition in the front-door criterion, ensuring that $M \to U$ does not occur. Furthermore, this stability supports the causal interpretation, as U continues to function solely as a confounder of T and Y, without being influenced by M.

In this context, we may also think of having multiple mediators (see Figure 4 below) that may be considered to be isolated, it is reasonable to think, for example, that physical damage is unrelated to the number of dead following a terror attack and both would be unrelated to the contextual variable U. The DAG in Figure 3 can be described, after assuming linearity, by the following system of structural equations:

$$Y = a_0 + a_1 M + a_2 U + V_Y \tag{3}$$

$$M = b_0 + b_1 T + V_M \tag{4}$$

$$T = c_0 + c_1 U + V_T. \tag{5}$$

By plugging Equation (4) into Equation (3) and rearranging we find in Equation (7) the total effect of T on Y :

$$Y = a_0 + a_1(b_0 + b_1 T + V_M) + a_2 U + V_Y \tag{6}$$

$$= (a_0 + a_1 b_0) + a_1 b_1 T + (a_1 V_M + a_2 U + V_Y). \tag{7}$$

Estimating the model in Equation (7) via OLS would not deliver a consistent estimator for, say, $\beta = a_1 b_1$ due to the omitted variable bias. However, the two parameters can be consistently estimated separately (see Section 3.3). As mentioned above, terrorism may have a direct impact in terms of loss of both human life as well as property. To describe this situation we consider a general case with L mediators (Figure 4)[10]. The identification problem stemming from the model in Equations (3) to (5) occurs also when more mediators are available (see Figure 4).

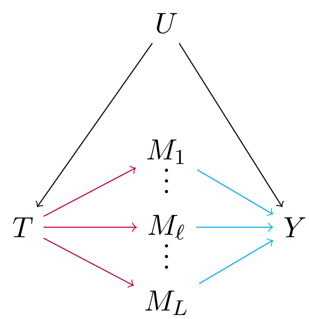

Figure 4: The DAG represents the direct effect of T on Y as the combination of multiple indirect paths through M_ℓ, $\ell = 1, \ldots, L$.

The model in Figure 4 can be represented by the system in Equations (8) to (10).

$$Y = a_0 + \sum_{\ell=1}^{L} a_{1\ell} M_\ell + a_2 U + V_Y \tag{8}$$

$$M_\ell = b_{0\ell} + b_{1\ell} T + V_{M_\ell} \quad \ell = 1, \ldots, L \tag{9}$$

$$T = c_0 + c_1 U + V_T. \tag{10}$$

By plugging Equations (9) into Equation (8) and rearranging we obtain

$$Y = \alpha + \beta T + \epsilon \tag{11}$$

where $\alpha = a_0 + \sum_{\ell=1}^{L} a_{1\ell} b_{0\ell}$, $\beta = \sum_{\ell=1}^{L} a_{1\ell} b_{1\ell}$ and $\epsilon = \sum_{\ell=1}^{L} a_{1\ell} V_{M_\ell} + a_2 U + V_Y$ [see Morgan and Winship,

[10] See Bellemare et al. [2024] for different graphical structures involving multiple mediators.

2015, for a case with two mediators]. Also in this case it is clear that the OLS estimator would not provide a consistent estimator of β due to the correlation of T with the error term ϵ. However, as in the simple case with one mediator and by the same arguments, we can identify the partial effects of T on M_ℓ and M_ℓ on Y conditional on T and consistently estimate the components $a_{1\ell}$ and $b_{1\ell}$, $\ell = 1, \ldots, L$. Another aspect of our identification strategy relates to the fact that exhaustiveness and isolation allow us to consider the case of terror attacks at different times (see Figure 5). This

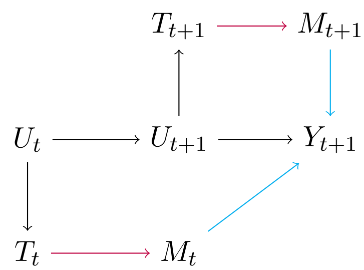

Figure 5: This DAG shows that the FDC identifies the effect of terror attacks at different points in time.

allows us to measure the impact of terror attacks as they move away from the time of the election.

3.2 Data

We base our analysis on a balanced panel of Italian provinces. This panel includes provinces that both experienced and did not experience terrorist attacks, spanning the years 1972 to 1992. Our dependent variable is the variation in electoral participation at the NUTS-3 level. Following the methodology of Greenbaum et al. [2007], we calculate the percentage change in the share of voters (defined as the percentage of actual voters out of the eligible ones) from one election to the following one. By using percentage change, we more accurately capture variations within the broader declining trend of electoral participation in Italy. The data regarding electoral outcomes are derived from Openpolis' analysis of information supplied by the Italian Ministry of Interior. We focus solely on the lower chamber, *Camera dei Deputati*. This emphasis might seem unbalanced given that both the Chamber of Deputies and the Senate have equivalent powers within a bicameral system. However, a reason for our approach lies in the distinction between their respective electoral bases. The Chamber of Deputies draws its mandate from a broader segment of the population, specifically those aged 18 and above. This is in contrast to the Senate, which has a different age threshold for its electorate [11]. Consequently, the wider representational scope of the Chamber of Deputies could make it a more pertinent subject of focus, as it encapsulates a larger portion of the citizenry. Second, the electoral districts related to the Senate elections, are different and broader [Faggian et al., 2021]. The elections under consideration took place in 1972, 1976, 1979, 1983, 1987, and 1992. The primary variable of interest in our study, the level of terrorist violence, is derived from the open-source GTD. For our study's objectives, we adopt the terrorism definition underpinning the database:

> *"The threatened or actual use of illegal force or violence to attain a political, economic, religious, or social goal through fear, coercion, or intimidation."* [LaFree and Dugan, 2002]

The majority of the data in the GTD was initially gathered by the Pinkerton Global Intelligence Service (PGIS) using

[11] Until the Constitutional reform of 2021, Italian citizens aged 25 onwards were enabled to vote for the Senate.

comprehensive reports of both international and domestic terrorist events spanning 1970 to 1997[12]. Compared to other open-source terrorist incident databases, the GTD covers a wider range of incidents over an extended time frame. Notably, while many publicly accessible terrorism databases primarily focus on international attacks, domestic terrorism significantly surpasses international terrorism incidents [Greenbaum et al., 2007][13].

Another advantage of the GTD is related to its very origin. Being collated by a private company, it encountered fewer political pressures than those databases overseen by political entities[14].

While the GTD is a valuable resource, it's not without its limitations, many of which are inherent to other open-source terrorism databases and, more broadly, to data derived from secondary media sources. The GTD data collection aligns with the military definition of terrorism, which is among the broadest definitions employed in open-source database creation. Several challenges with the GTD are also prevalent in other media-sourced databases. These encompass potential media inaccuracies, misinformation, contradictory claims, instances with either multiple or no claims of responsibility for incidents, governmental censorship or disinformation campaigns, and 'false flag' events (where a group either wrongly claims or doesn't claim responsibility for an act). However, it's crucial to highlight that many of these overarching issues, such as conflicting claims and false flags, are less likely to skew our analysis. Our focus is on the frequency of incidents in each province without delving into the specifics of which group claimed responsibility[15]. In a broader sense, despite its constraints, the GTD employs one of the most comprehensive definitions of terrorism among available open-source databases and is frequently referenced in academic literature (see, among the others, Greenbaum et al., 2007, Peri et al., 2020).

3.3 Results and Discussion

In what follows we show the estimation results based on the identification strategy defined in Section 3. The naive model evaluates the impact of terror attacks on participation, incorporating a comprehensive set of covariates to

[12]During this period, PGIS-trained researchers logged all identifiable terrorism incidents sourced from wire services (such as Reuters and the Foreign Broadcast Information Service), US State Department reports, other US and foreign government reports, and US and foreign newspapers (including outlets like the New York Times, The Financial Times, the Christian Science Monitor, the Washington Post, the Washington Times, and the Wall Street Journal). PGIS offices globally supplied the information, occasionally supplemented by inputs from organized political opposition groups, PGIS clients, and other individuals both in official and private roles [LaFree and Dugan, 2002].

[13]Schmid et al. [1988] contend that the omission of domestic terrorism data in many open-source databases has severely hindered terrorism research. Falkenrath [2001] suggests that the primary reason for excluding domestic terrorism from these databases is the bureaucratic distinction governments traditionally make between domestic and international responsibilities (e.g., the US Justice Department versus the US State Department). This artificial separation between domestic and international terrorist events hampers a comprehensive understanding of terrorism and the continuity of terrorist activities. Unlike many databases, the GTD encompasses both international and domestic incidents, making it approximately seven times larger than any other existing open-source database.

[14]As pointed out by Greenbaum et al. [2007], the US State Department often overlooked terrorist attacks by the right-wing *Contras* in Nicaragua during the 1980s. Conversely, following the 1972 Munich Olympics massacre, in which 11 Israeli athletes were killed, representatives from a coalition of Arab, African, and Asian nations successfully thwarted the United Nations' actions by arguing that "*People who struggle to liberate themselves from foreign oppression and exploitation have the right to use all methods at their disposal, including force*" (Hoffman 1998, p. 31). These political considerations partially explain why the United Nations has yet to establish a universally accepted terrorism definition.

[15]To provide context, during the peak of the Italian terrorist activity, discerning the actual group or faction responsible for an attack was often challenging [Galleni, 1981]. This ambiguity arose primarily from two factors: the limited and often inadequate investigative resources available, and the occasional strategic intent of the attack's orchestrators to mislead the public into believing that the perpetrator was from an opposing political faction.

reduce confounding and is estimated using OLS. The model defined by the FDC is a seemingly unrelated regression (SUR) model. In this case the model is estimated drawing on Preacher and Hayes [2008] using the STATA function `sureg`[16] adapting it to the inclusion of three mediators, building on what is originally provided by UCLA [2023].

3.3.1 Estimation of the *Naive* model

We consider a *naive* regression model drawing on Barro [1991]. Let P_{jt} represent the electoral participation in the j-th province at time t, and it is calculated by the percentage of all the votes including the non-valid and the blank ballots over the number of eligible voters. The dependent variable Y represents the variation of the electoral participation in province j at time t and it is denoted as $\Delta P_{jt} = P_{jt} - P_{j(t-1)}$, where 1 indicates one electoral round. The model includes the variable $P_{j(t-1)}$ is the term included to control for convergence effects. The model, in its general form, is represented by Equation 12:

$$\Delta P_{jt} = \alpha_j + \beta_t + \gamma_1 \, T_{j(t;t-k)} + \gamma_2 \, P_{j(t-1)} + \gamma_3' \, W_{jt} + \epsilon_{jt}. \tag{12}$$

α_j and β_t represent respectively province and year fixed effects to account for differences across provinces and over time. Being k the number of quarters before the election day, $T_{j(t;t-k)}$ represents the number of terrorist incidents per 100,000 inhabitants in province j during the time frame from t to $t-k$. The value of k ranges from 1 to 12, because 12 quarters is the minimum distance between the considered electoral rounds. $W_{j(t-1)}$ is a vector of covariates. In particular, we account for the total population (*Population*), the gross value added per capita (*Value Added*), and the rate of enrolment in universities (*Univ. Enrolment*). In addition, we include the rate of *Property crime*, which refers to a category of crimes involving theft, violent theft, robbery, extortion, or damage to someone's personal property[17]. Finally, in order to take into account the Italian political and party landscape, we include in the model the *Pluralism Index*[18]. The *Pluralism Index* serves as a measurement tool captures the dispersion of votes among the diverse political parties. A higher value indicates a greater level of pluralism, meaning that the votes are more evenly distributed among multiple parties. Conversely, a lower pluralism index value suggests a lower level of pluralism, with votes concentrated among fewer parties. Figure 9 (a to g) show the evolution of the index with respect to the voter turnout across the period considered. Consistently with the literature and with our assumptions on the importance of the political parties, we analyse the dynamics of the trend related to the consensus for the main parties. In particular, as shown in Eq. 13, we estimate our regression models to assess the relationship between terrorism (T) and the votes gathered by *Democrazia Cristiana* (DC), *Partito Comunista Italiano* (PCI), and *Movimento Sociale Italiano* (MSI):

$$\Delta P_{jt} \in \{\Delta \, DC_{jt}, \Delta \, PCI_{jt}, \Delta \, MSI_{jt}\}. \tag{13}$$

As previously mentioned, these parties represent the incumbent party in power, as well as the main left-wing and right-wing opposition parties, respectively. Notwithstanding the aforementioned set of controls included in our model, we are not able to exclude the bias coming from the presence of other (observable and non-observable) confounding factors, affecting both the distribution of terrorism and the trend of electoral participation.

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[16] See https://www.stata.com/manuals/rsureg.pdf.

[17] These data have been collected, harmonized, and digitized through archival research at the ISTAT Central Library in Rome (IT).

[18] This index, is calculated to an adaptation of the Herfindahl-Hirschman index (see Rhoades, 1993), and account for the 'dispersion' of votes among the political parties.

According to our assumption, a terrorist attack does not have meaning *per se* in terms of perception if one does not consider its timing and the magnitude of its consequences. Therefore, to discern the distinct impact of the attacks, we separate out the number of casualties, wounded individuals, and physical damages. Also in this case, we adapted the variables to capture their time-varying effects, organizing them into quarters (3-month periods) leading up to election day. Arguably, these three elements represent the most immediate and *direct* consequences of terrorism and might play a key role in explaining the real dynamics in terms of impact assessment, as already mentioned in some related research such as, among the others, Gassebner et al. [2008], Brownlow [2012], and Besley and Mueller [2012].

In Table 1 are summarized the results of the regression model. As anticipated, the variable *terrorism* is lagged over twelve quarters. The coefficient is always positive. However, it is significant until the 5th quarter before election day, suggesting a time-decreasing pattern. Slightly different results emerge from the analysis of the share of votes for the main parties. Tables B1, B2, and B3 show the estimates regarding the DC, PCI, and MSI respectively. Consistent with the literature highlighting the mechanisms of the electorate punishing the incumbent party, *terrorism* shows a negative relationship with the preferences for the DC. Also, in this case, the effect is time decreasing. Similarly, with respect to the PCI, the coefficient is significant only in the short term, but in this case, is positive. Finally, with respect to MSI, there is no significant correlation with exposure to terrorism violence.

3.3.2 SUR estimation of the FDC

Figures 8 (a-d) present the results of the FDC. The time span examined ranges from one quarter up to 12 quarters prior to the election day. These estimates reveal varying patterns of impact on voter turnout. Specifically, it appears that the marginal effect of terrorist attacks, which diminishes over time, is predominantly influenced by the presence of physical damages. Conversely, as observed in Figures 8 (a) and 8 (b), while the presence of casualties primarily exhibits a negative and statistically non-significant effect, the coefficients pertaining to the number of wounded demonstrate a significant positive impact in the medium to long term. The confidence intervals shown in the plots reflect the bias-corrected and accelerated confidence intervals.

As already mentioned, given the characteristics of the Italian political landscape in the period considered, we run the same analysis to check the impact of violence on the change in the share of votes collected by the main political, with the aim of providing a clearer understanding of the electoral dynamics. Figures 10 (a-d) include the coefficients and their significance levels concerning the influence of various factors on the variation in vote shares for the incumbent party, DC. Echoing findings from key contributions in the literature (as explained in Section 2, the incumbent party appears to face electoral backlash. Notably, the primary driver of this effect seems to be the presence of physical damage. Conversely, the dynamics appear different for the primary opposition party, the PCI. As indicated in Figures 11 (a-d), the vote share for PCI seems to rise, likely capitalizing on the situation. In every instance, physical damages emerge as the predominant mediating variable influencing the impact of terrorism. Moreover, the effect is more pronounced closer to the election day and diminishes as we move further away from it, considering the trimesters leading up to the election. It is also worth noticing that, overall, no significant patterns emerge concerning the vote share of the extreme right opposition party, MSI. As depicted in Figures 12 (a-d), the party's vote share appears not to be influenced by terrorist wave, and in general remain consistent throughout the entire period under study.

3.3.3 Robustness Checks

In our analysis, we consider the terrorist events recorded within three years of each election day. However, not all the elections were held every three years; sometimes they occurred every four years, and sometimes every five years. To address the irregularities in the election schedule, we conduct FDC estimations using electoral participation as the dependent variable, weighted by the number of years between consecutive electoral rounds. The results are summarized in Figures 13 (a-d). The magnitude and direction of the results are consistent with the ones obtained from the main estimation presented in Section 3.3.2. Another relevant concern pertains to the potential spatial spillover effects of terrorism. Since our geographical unit of analysis is the province (NUTS-3 level), especially within the Italian context, it's unlikely that events in one province remain entirely confined within its borders. To address this, we constructed a new set of variables for terrorism, deaths, wounded, and damages, incorporating events occurring in province i and in contiguous provinces. Using these variables, we re-estimated the model to assess their impact on voter turnout. Figures 14 (a-d) display the corresponding coefficients. Despite accounting for spatial spillover, the trends and magnitudes of the effects remain consistent with our previous findings.

4 Conclusions

This study explores the causal relationship between terrorist violence during the 'Years of Lead' and declining voter turnout in Italian political elections. Using the FDC, we identify the effect of terrorism on electoral participation, mediated by the severity of terrorist attacks, as approximated by the occurrence of deaths, injuries, and damages. To capture the time-varying impact, we analyse a broad range of time-lagged terrorism-related variables, spanning 1 to 12 quarters before each election day.

Our analysis indicates that in a context of declining electoral participation and growing public disaffection with political dynamics [Cerruto, 2012], higher levels of terrorism increase the salience of the upcoming electoral round [Peri et al., 2020]. Simultaneously, our estimates indicate that the incumbent party is negatively impacted by terrorist violence. These findings, while specific to a particular phenomenon and context, align with the conclusions of the work by Gardeazabal [2010] and Montalvo [2011], which focused on the analysis of post-regime electoral dynamics in Spain, as well as with the findings of Kibris [2011] in his analysis of the Turkish context.

In general, we observe that the total impact of terrorism is mainly driven by the presence of physical damages, while the presence of casualties does not seem to have any effect on voter turnout, nor on political party dynamics. On the other hand, it is worth highlighting the trends of the coefficients associated with the effect of terrorism mediated through the presence of *wounded* (i.e. survived, non-fatal victims), which tends to gain positive statistical significance in the medium-long run. This evidence aligns with the established sociological and criminological theories and literature on victimization and post-victimization dynamics (see, for example, Bateson, 2012, Pazzona, 2020, Vargas et al., 2023). According to this body of research, victims tend to become more socially engaged following a period of adjustment after the victimization. This mechanism may explain why the number of casualties does not exert an immediate effect on affected local communities but instead generates a significant impact after a certain delay.

Another noteworthy aspect is that the peaks of terrorist violence occur farther from election day. At first glance, this might seem puzzling. Nevertheless, it aligns with the prevailing theoretical framework characterizing Italian terrorism, which has been generally attributed to having limited strategic capabilities [Galleni, 1981]. Within this context, it is plausible that the primary objectives of the terrorist groups active during the period we examine may not have been focused on influencing the electoral outcome. As noted earlier, the political landscape at the time was primarily characterized by a sort of bipolar party system, with Christian Democracy in a dominant position. Furthermore, in the case where a majority of these attacks were attributed to leftist groups like the Red Brigades (*Brigate Rosse*, in Italian), it is difficult to argue that their main intent were to propel the communist party to power. This is because the communist party itself was actively opposed to terrorism and consistently condemned their actions.

In conclusion, our paper makes a significant contribution to two key areas of inquiry. Firstly, it enriches the discourse on the intricate interplay between violence and electoral behavior. This exploration sheds light on the ways in which external factors, such as acts of terrorism, can influence the political choices made by individuals, thereby broadening our understanding of the dynamics that underpin democratic processes. By digging into the relationship between terrorist violence and electoral participation, we are also contributing to the scarce academic production on the history of electoral dynamics in Italy. Secondly, our study addresses a notable gap in the existing literature, one that has yet to comprehensively cover various facets of a complex and multifaceted period in Italian history. This gap, especially from a quantitative perspective, has left several aspects unexplored. Our research endeavours to bridge this void by providing a detailed analysis that not only adds to the empirical body of knowledge but also offers fresh insights into the historical context. By examining this period quantitatively, we aim to offer a more comprehensive understanding of the historical and political landscape of Italy during this time, setting the stage for further research and discussion on this fascinating and pivotal period.

5 Figures and Tables

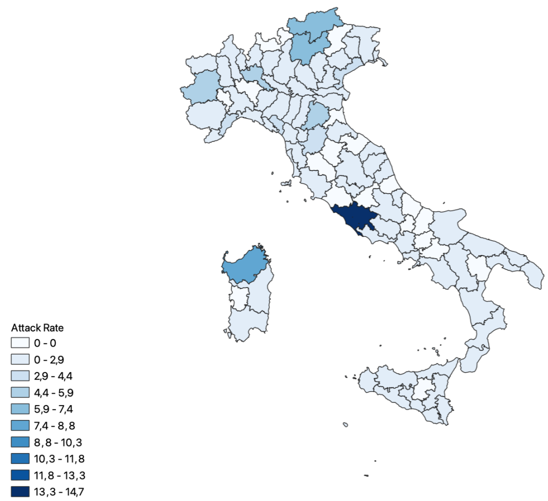


Figure 6: The map illustrates the distribution of terrorist attacks per 100,000 inhabitants across Italian provinces from 1970 to 1992, highlighting regions most affected by violence.

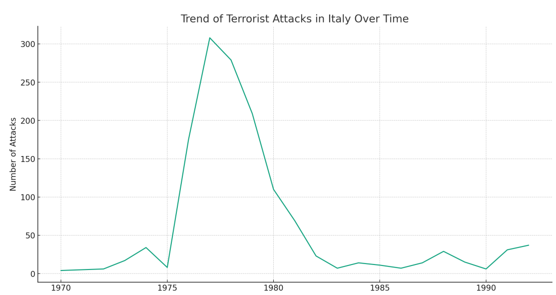
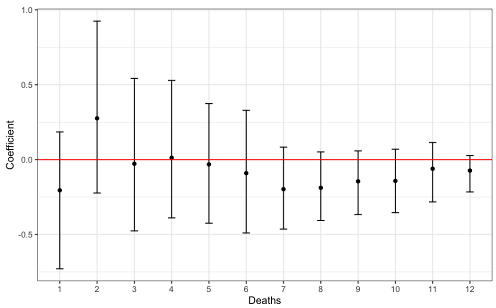
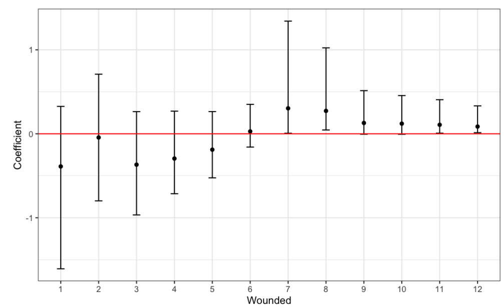


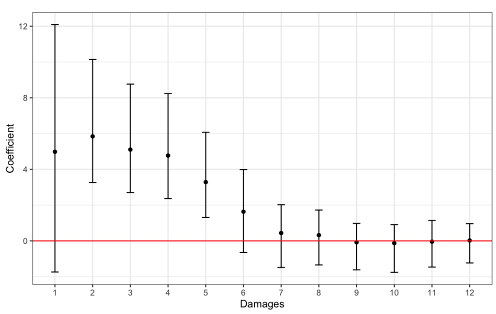
Figure 7: The figure displays the overall trend in terrorist attacks recorded in Italy by the Global Terrorism Dataset, from 1970 to 1992.



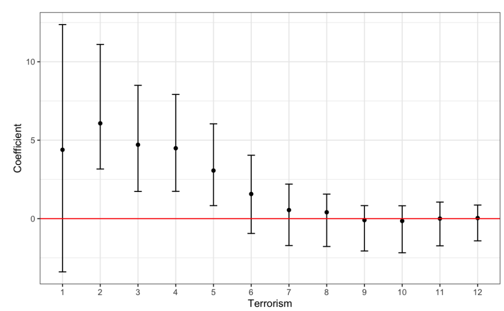
(a) Partial effect of deaths



(b) Partial effect of wounded



(c) Partial effect of damages



(d) Total marginal effect of terrorism

Figure 8: FDC Results - Effect on Voter Turnout. The 95% confidence interval represented by the plots reflects the bias-corrected and accelerated c.i., 5,000 bootstrap replications. Plot *a)* represents the mediated effect of terrorism through the presence of deaths. Plot *b)* represents the mediated effect of terrorism through the presence of the wounded. Plot *c)* represents the mediated effect of terrorism through the presence of physical damages. Plot *d)* represents the effect of terrorism on participation.

Table 1: Effect of Terrorism on Voters Turnout - Naive Regression Model

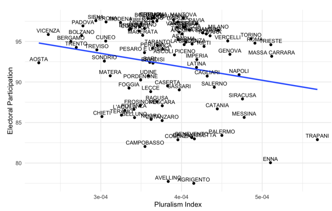
	1	2	3	4	5	6	7	8	9	10	11	12
VARIABLES	$k=1$	$k=2$	$k=3$	$k=4$	$k=5$	$k=6$	$k=7$	$k=8$	$k=9$	$k=10$	$k=11$	$k=12$
$Electoral\ Participation_{(t-1)}$	-0.163***	-0.164***	-0.164***	-0.163***	-0.163***	-0.167***	-0.168***	-0.168***	-0.168***	-0.168***	-0.168***	-0.168***
	(0.0327)	(0.0329)	(0.0330)	(0.0328)	(0.0328)	(0.0335)	(0.0334)	(0.0335)	(0.0334)	(0.0334)	(0.0334)	(0.0333)
$Terrorism_{(t-k)}$	1.424***	0.930**	0.777**	0.799**	0.726***	0.172	0.126	0.081	0.091	0.084	0.073	0.030
	(0.5000)	(0.3783)	(0.3588)	(0.3523)	(0.2748)	(0.2618)	(0.2115)	(0.1787)	(0.1604)	(0.1514)	(0.1406)	(0.1190)
$Property\ Crime\ (log)$	0.151	0.156	0.154	0.153	0.142	0.169	0.170	0.172	0.170	0.171	0.172	0.179
	(0.1559)	(0.1544)	(0.1548)	(0.1545)	(0.1533)	(0.1654)	(0.1682)	(0.1686)	(0.1679)	(0.1671)	(0.1667)	(0.1642)
$Pluralism\ Index\ (log)$	-1.426***	-1.441***	-1.430***	-1.446***	-1.416***	-1.462***	-1.463***	-1.461***	-1.462***	-1.461***	-1.461***	-1.466***
	(0.5188)	(0.5209)	(0.5227)	(0.5229)	(0.5199)	(0.5293)	(0.5308)	(0.5335)	(0.5319)	(0.5321)	(0.5322)	(0.5316)
$Population\ (log)$	-0.170	-0.162	-0.162	-0.168	-0.182*	-0.128	-0.127	-0.122	-0.124	-0.124	-0.123	-0.115
	(0.1067)	(0.1070)	(0.1079)	(0.1086)	(0.1080)	(0.1088)	(0.1068)	(0.1070)	(0.1068)	(0.1070)	(0.1074)	(0.1071)
$Value\ Added\ (log)$	2.806***	2.815***	2.824***	2.768***	2.761***	2.849***	2.852***	2.863***	2.862***	2.859***	2.861***	2.871***
	(0.7669)	(0.7679)	(0.7701)	(0.7712)	(0.7757)	(0.7666)	(0.7602)	(0.7624)	(0.7647)	(0.7638)	(0.7645)	(0.7615)
$Univ.\ Enrollment\ (log)$	3.442	3.435	3.128	3.282	2.725	2.845	2.854	2.892	2.734	2.743	2.735	2.848
	(6.0489)	(6.0912)	(6.1614)	(6.1929)	(6.2751)	(6.1980)	(6.2010)	(6.1867)	(6.2143)	(6.2117)	(6.2096)	(6.1681)
Constant	-20.633***	-20.868***	-20.826***	-20.432***	-19.930***	-21.560***	-21.580***	-21.716***	-21.682***	-21.656***	-21.680***	-21.917***
	(7.2624)	(7.2941)	(7.3389)	(7.3158)	(7.3317)	(7.2739)	(7.2492)	(7.3036)	(7.3019)	(7.2971)	(7.3078)	(7.2754)
Observations	465	465	465	465	465	465	465	465	465	465	465	465
R-squared	0.587	0.586	0.586	0.587	0.588	0.584	0.584	0.584	0.584	0.584	0.584	0.584

Robust standard errors in parentheses

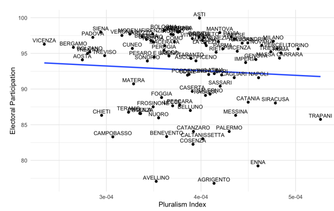
Notes: *Notes*: The control variables present values collected one year before the election, as detailed in Section 3.3.1. The values of k represent the quarters preceding election day. Robust Standard Errors in parenthesis. Statistical significance is indicated by asterisks: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Annex - A

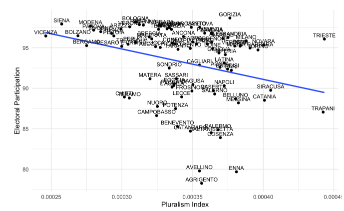
This Annex presents scatter plots showing the relationship between the Pluralism Index and electoral participation for each electoral round. The index reflects the distribution of political party presence during each election, providing a measure of the diversity and spread of available political options.



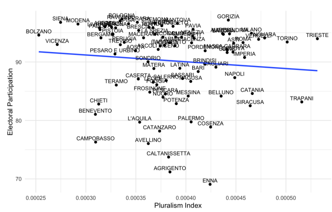
(a) 1968 Elections



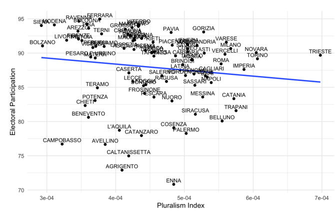
(b) 1972 Elections



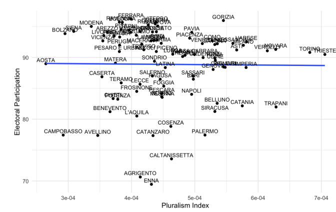
(c) 1976 Elections



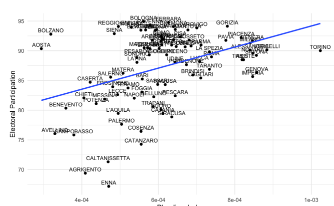
(d) 1979 Elections



(e) 1983 Elections



(f) 1987 Elections

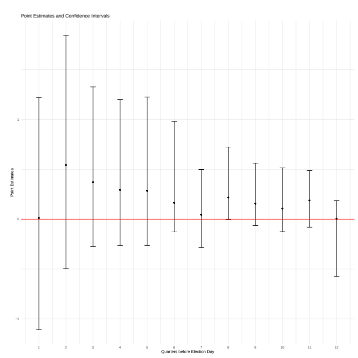


(g) 1992 Elections

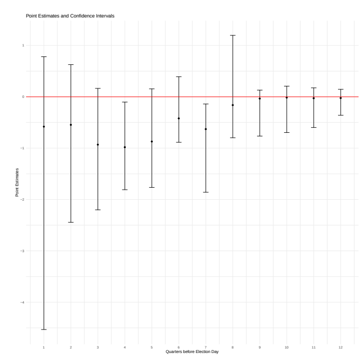
Figure 9: Pluralism Index and Electoral Participation across Various Political Elections.

Annex - B

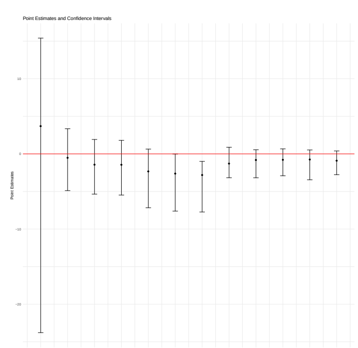
This Annex presents the results from both the CMA and naive analysis of the estimation of the marginal effect of terrorism and its mediators on the vote share of the main political parties active during the period of analysis: *Democrazia Cristiana* (the incumbent party), *Partito Comunista Italiano* (the left-wing opposition), and *Movimento Sociale Italiano* (the far-right party).



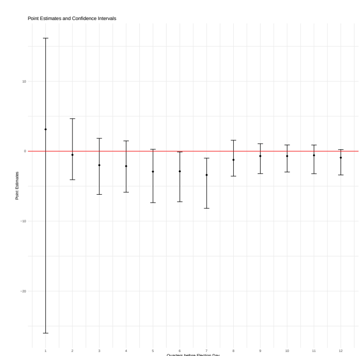
(a) Partial effect of deaths



(b) Partial effect of wounded

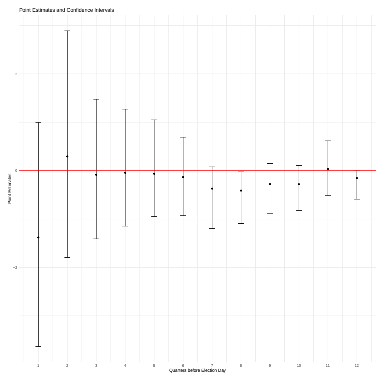


(c) Partial effect of damages

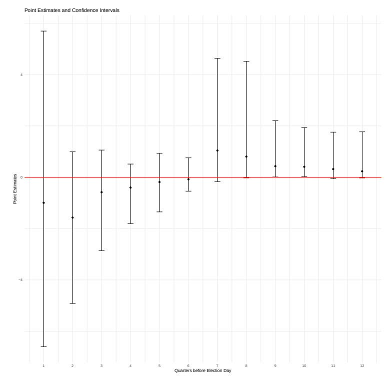


(d) Total marginal effect of terrorism

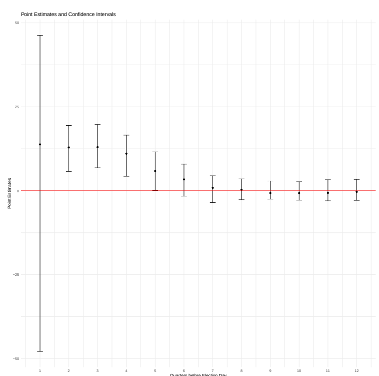
Figure 10: FDC Results - Effect on Votes for the Incumbent Party. The 95% confidence interval represented by the plots reflects the bias-corrected and accelerated c.i., 5,000 bootstrap replications. Plot *a)* represents the mediated effect of terrorism through the presence of deaths. Plot *b)* represents the mediated effect of terrorism through the presence of the wounded. Plot *c)* represents the mediated effect of terrorism through the presence of physical damages. Plot *d)* represents the effect of terrorism.



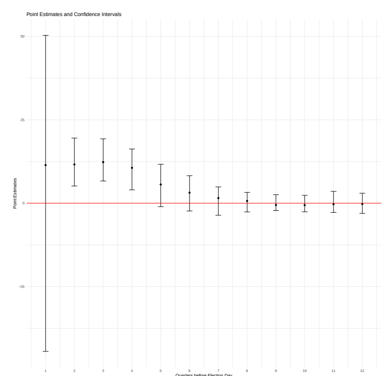
(a) Partial effect of deaths



(b) Partial effect of wounded

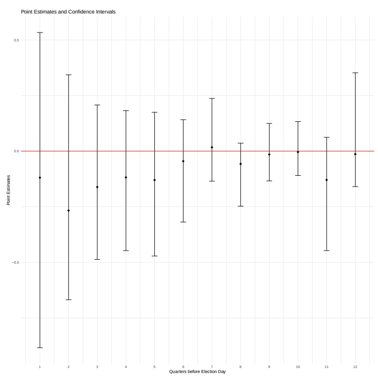


(c) Partial effect of damages

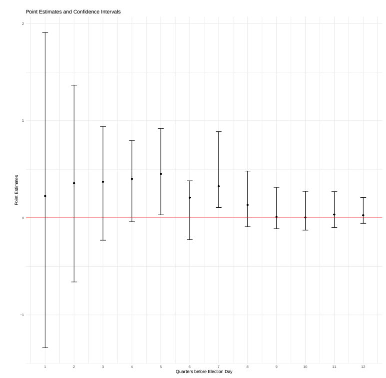


(d) Total marginal effect of terrorism

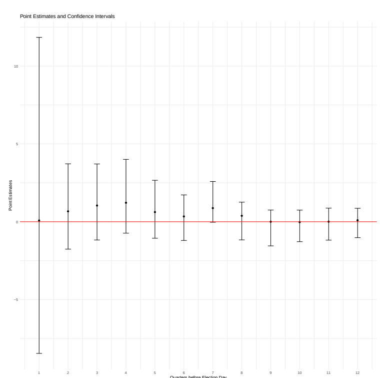
Figure 11: FDC Results - Effect on Votes for the Main Opposition Party. The 95% confidence interval represented by the plots reflects the bias-corrected and accelerated c.i., 5,000 bootstrap replications. The full numerical values are available upon request. Plot *a)* represents the mediated effect of terrorism through the presence of deaths. Plot *b)* represents the mediated effect of terrorism through the presence of the wounded. Plot *c)* represents the mediated effect of terrorism through the presence of physical damages. Plot *d)* represents the effect of terrorism.



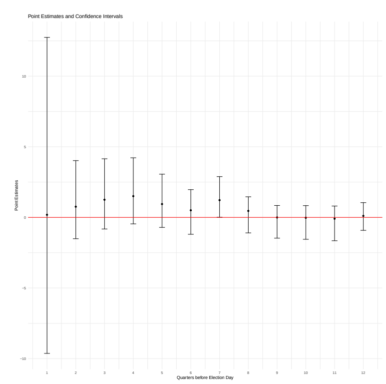
(a) Partial effect of deaths



(b) Partial effect of wounded



(c) Partial effect of damages



(d) Total marginal effect of terrorism

Figure 12: FDC Results - Effect on Votes for the Extreme Right Party. The 95% confidence interval represented by the plots reflects the bias-corrected and accelerated c.i., 5,000 bootstrap replications. Plot *a)* represents the mediated effect of terrorism through the presence of deaths. Plot *b)* represents the mediated effect of terrorism through the presence of the wounded. Plot *c)* represents the mediated effect of terrorism through the presence of physical damages. Plot *d)* represents the effect of terrorism.

Table B1: Effect of Terrorism on Votes for DC - Naive Regression Model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
VARIABLES	$k = 1$	$k = 2$	$k = 3$	$k = 4$	$k = 5$	$k = 6$	$k = 7$	$k = 8$	$k = 9$	$k = 10$	$k = 11$	$k = 12$
$Electoral\ Participation_{(t-1)}$	-0.531***	-0.522***	-0.517***	-0.518***	-0.520***	-0.512***	-0.507***	-0.513***	-0.511***	-0.508***	-0.510***	-0.505***
	(0.1773)	(0.1772)	(0.1765)	(0.1761)	(0.1758)	(0.1761)	(0.1761)	(0.1758)	(0.1759)	(0.1758)	(0.1757)	(0.1758)
$Attack\ Rate_{(t-k)}$	-4.603**	-1.871	-0.920	-0.907	-0.924	-0.127	0.333	-0.138	0.005	0.165	0.033	0.306
	(1.7944)	(1.4525)	(1.4368)	(1.3783)	(0.8818)	(0.6292)	(0.4527)	(0.3684)	(0.3508)	(0.3494)	(0.3218)	(0.2891)
$Property\ Crime\ (log)$	-1.157	-1.219	-1.247	-1.241	-1.221	-1.275	-1.334	-1.264	-1.290	-1.321	-1.295	-1.345
	(0.8307)	(0.8401)	(0.8383)	(0.8353)	(0.8350)	(0.8439)	(0.8567)	(0.8408)	(0.8394)	(0.8412)	(0.8376)	(0.8430)
$Pluralism\ Index\ (log)$	-14.635**	-14.624**	-14.622**	-14.609**	-14.652**	-14.592**	-14.584**	-14.602**	-14.589**	-14.579**	-14.587**	-14.555**
	(6.8079)	(6.7981)	(6.7841)	(6.7944)	(6.7837)	(6.7795)	(6.7658)	(6.7776)	(6.7769)	(6.7747)	(6.7774)	(6.7745)
$Population\ (log)$	0.348	0.246	0.192	0.200	0.229	0.135	0.059	0.144	0.116	0.081	0.110	0.040
	(0.7996)	(0.7752)	(0.7735)	(0.7745)	(0.7860)	(0.7816)	(0.7710)	(0.7806)	(0.7823)	(0.7803)	(0.7864)	(0.7782)
$Value\ Added\ (log)$	-2.505	-2.634	-2.758	-2.729	-2.693	-2.840	-2.990	-2.820	-2.875	-2.941	-2.888	-3.075
	(3.7481)	(3.7610)	(3.7781)	(3.7985)	(3.7771)	(3.7832)	(3.7714)	(3.7630)	(3.7663)	(3.7709)	(3.7704)	(3.7674)
$Univ.\ Enrollment\ (log)$	-104.195	-103.390	-102.778	-102.867	-102.047	-102.354	-102.663	-102.347	-102.450	-102.861	-102.539	-103.498
	(65.7846)	(65.5906)	(65.4284)	(65.4605)	(65.4201)	(65.3336)	(65.2880)	(65.3053)	(65.2366)	(65.3007)	(65.2870)	(65.4364)
$Constant$	3.775	5.864	7.423	7.224	6.186	8.857	11.119	8.470	9.392	10.500	9.613	12.334
	(68.2831)	(68.2596)	(68.7938)	(68.9431)	(68.9811)	(69.3276)	(69.6936)	(69.2011)	(69.3436)	(69.5533)	(69.4651)	(69.9116)
Observations	465	465	465	465	465	465	465	465	465	465	465	465
R-squared	0.679	0.678	0.677	0.677	0.677	0.677	0.677	0.677	0.677	0.677	0.677	0.677

Notes: *Notes*: The control variables present values collected one year before the election, as detailed in Section 3.3.1. The values of k represent the quarters preceding election day. Robust Standard Errors in parenthesis. Statistical significance is indicated by asterisks: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table B2: Effect of Terrorism on Votes for PCI - Naive Regression Model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
VARIABLES	$k=1$	$k=2$	$k=3$	$k=4$	$k=5$	$k=6$	$k=7$	$k=8$	$k=9$	$k=10$	$k=11$	$k=12$
$Electoral\ Participation_{(t-1)}$	0.607***	0.598***	0.594***	0.588***	0.594***	0.589***	0.587***	0.588***	0.585***	0.584***	0.585***	0.582***
	(0.2190)	(0.2192)	(0.2190)	(0.2187)	(0.2181)	(0.2189)	(0.2190)	(0.2190)	(0.2192)	(0.2192)	(0.2190)	(0.2193)
$Attack\ Rate_{(t-k)}$	5.197**	2.169	1.337	0.327	0.903	0.334	0.162	0.184	0.029	-0.065	0.012	-0.159
	(2.0786)	(1.6544)	(1.6161)	(1.7308)	(1.0836)	(0.7882)	(0.5128)	(0.4798)	(0.4716)	(0.4612)	(0.4303)	(0.3622)
$Property\ Crime(log)$	0.200	0.268	0.289	0.332	0.283	0.314	0.327	0.316	0.343	0.362	0.347	0.378
	(1.1480)	(1.1398)	(1.1377)	(1.1324)	(1.1439)	(1.1395)	(1.1362)	(1.1422)	(1.1375)	(1.1311)	(1.1336)	(1.1175)
$Pluralism\ Index\ (log)$	-1.298	-1.309	-1.302	-1.342	-1.288	-1.342	-1.346	-1.333	-1.348	-1.353	-1.348	-1.367
	(6.0765)	(6.1043)	(6.1081)	(6.0977)	(6.1130)	(6.0987)	(6.0936)	(6.0999)	(6.0977)	(6.0984)	(6.1022)	(6.1011)
$Population\ (log)$	-0.608	-0.496	-0.456	-0.377	-0.456	-0.393	-0.376	-0.382	-0.353	-0.333	-0.350	-0.307
	(1.0900)	(1.0641)	(1.0619)	(1.0591)	(1.0692)	(1.0763)	(1.0681)	(1.0653)	(1.0684)	(1.0687)	(1.0725)	(1.0711)
$Value\ Added\ (log)$	3.642	3.780	3.890	4.005	3.881	3.970	4.001	3.987	4.048	4.084	4.052	4.163
	(4.4907)	(4.5136)	(4.5366)	(4.5611)	(4.5365)	(4.5445)	(4.5339)	(4.5330)	(4.5417)	(4.5474)	(4.5465)	(4.5516)
$Univ.\ Enrollment\ (log)$	18.095	17.216	16.607	16.267	15.730	15.893	16.002	15.991	16.042	16.279	16.075	16.663
	(72.9520)	(73.1557)	(73.2431)	(73.2496)	(73.4542)	(73.4655)	(73.3909)	(73.3663)	(73.2976)	(73.3225)	(73.3522)	(73.3630)
Constant	-63.411	-65.662	-66.899	-68.944	-66.612	-68.392	-68.861	-68.527	-69.540	-70.165	-69.624	-71.262
	(72.6082)	(72.7030)	(73.2903)	(73.5899)	(73.7793)	(73.6564)	(73.4267)	(73.5025)	(73.7266)	(73.8823)	(73.9534)	(74.0696)
Observations	465	465	465	465	465	465	465	465	465	465	465	465
R-squared	0.735	0.733	0.733	0.733	0.733	0.733	0.733	0.733	0.733	0.733	0.733	0.733

Notes: *Notes*: The control variables present values collected one year before the election, as detailed in Section 3.3.1. The values of k represent the quarters preceding election day. Robust Standard Errors in parenthesis. Statistical significance is indicated by asterisks: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

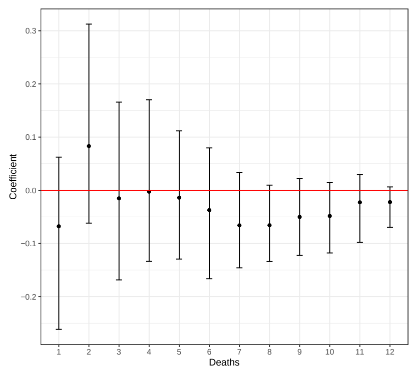
Table B3: Effect of Terrorism on Votes for MSI - Naive Regression Model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
VARIABLES	$k=1$	$k=2$	$k=3$	$k=4$	$k=5$	$k=6$	$k=7$	$k=8$	$k=9$	$k=10$	$k=11$	$k=12$
$Electoral\ Participation_{(t-1)}$	0.121**	0.124**	0.124**	0.123**	0.123**	0.124**	0.122**	0.122**	0.121**	0.121**	0.121**	0.122**
	(0.0509)	(0.0513)	(0.0512)	(0.0510)	(0.0509)	(0.0509)	(0.0507)	(0.0507)	(0.0506)	(0.0506)	(0.0505)	(0.0508)
$Attack\ Rate_{(t-k)}$	-0.553	0.169	0.057	-0.077	-0.064	0.037	-0.148	-0.131	-0.146	-0.128	-0.134	-0.077
	(0.7218)	(0.4978)	(0.4243)	(0.3690)	(0.2532)	(0.2156)	(0.1705)	(0.1513)	(0.1395)	(0.1334)	(0.1242)	(0.1104)
$Property\ Crime\ (log)$	0.452**	0.430**	0.433**	0.440**	0.441**	0.432*	0.456**	0.460**	0.465**	0.461**	0.463**	0.450**
	(0.2146)	(0.2093)	(0.2110)	(0.2125)	(0.2162)	(0.2201)	(0.2199)	(0.2211)	(0.2221)	(0.2212)	(0.2215)	(0.2169)
$Pluralism\ Index\ (log)$	5.608***	5.616***	5.615***	5.612***	5.609***	5.614***	5.611***	5.602***	5.607***	5.605***	5.602***	5.605***
	(0.8435)	(0.8524)	(0.8525)	(0.8505)	(0.8521)	(0.8511)	(0.8470)	(0.8508)	(0.8492)	(0.8494)	(0.8497)	(0.8492)
$Population\ (log)$	0.072	0.032	0.039	0.051	0.051	0.039	0.070	0.069	0.074	0.072	0.077	0.063
	(0.1995)	(0.2032)	(0.2039)	(0.2037)	(0.2007)	(0.1968)	(0.1974)	(0.1981)	(0.1982)	(0.1984)	(0.1991)	(0.1972)
$Value\ Added\ (log)$	3.596***	3.530***	3.544***	3.564***	3.564***	3.542***	3.603***	3.602***	3.601***	3.604***	3.613***	3.602***
	(1.2122)	(1.2152)	(1.2129)	(1.2102)	(1.2053)	(1.1970)	(1.2007)	(1.2019)	(1.2029)	(1.2023)	(1.2007)	(1.2019)
$Univ.\ Enrollment\ (log)$	-9.758	-9.461	-9.526	-9.584	-9.520	-9.572	-9.447	-9.461	-9.198	-9.218	-9.131	-9.281
	(12.3369)	(12.3041)	(12.3355)	(12.3267)	(12.4054)	(12.4545)	(12.3734)	(12.4088)	(12.3600)	(12.3730)	(12.3634)	(12.3932)
Constant	6.508	7.495	7.298	6.997	6.960	7.327	6.398	6.331	6.296	6.295	6.139	6.433
	(10.3101)	(10.4999)	(10.4591)	(10.4217)	(10.3647)	(10.2950)	(10.2617)	(10.3000)	(10.2500)	(10.2682)	(10.2679)	(10.2957)
Observations	465	465	465	465	465	465	465	465	465	465	465	465
R-squared	0.828	0.828	0.828	0.828	0.828	0.828	0.828	0.828	0.828	0.828	0.828	0.828

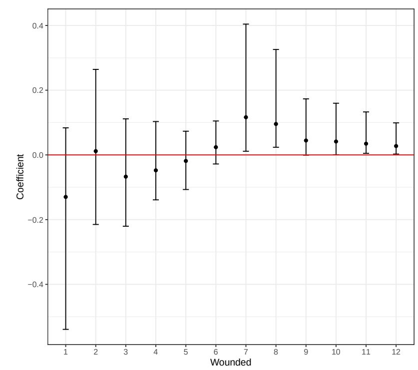
Notes: *Notes*: The control variables present values collected one year before the election, as detailed in Section 3.3.1. The values of k represent the quarters preceding election day. Robust Standard Errors in parenthesis. Statistical significance is indicated by asterisks: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Annex - C

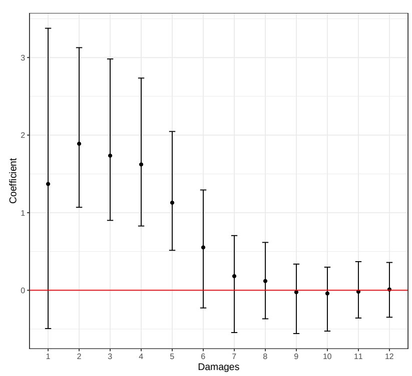
This Annex presents the results of the early stage robustness checks performed to support the main estimations.



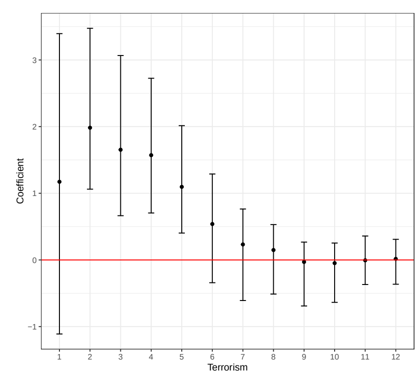
(a) Mediated effect of deaths



(b) Mediated effect of wounded

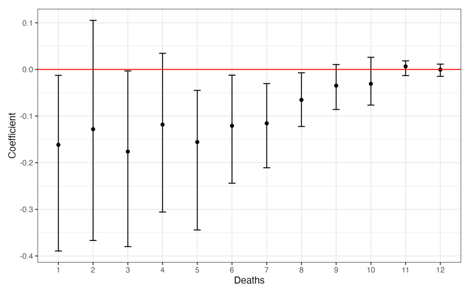


(c) Mediated effect of damages

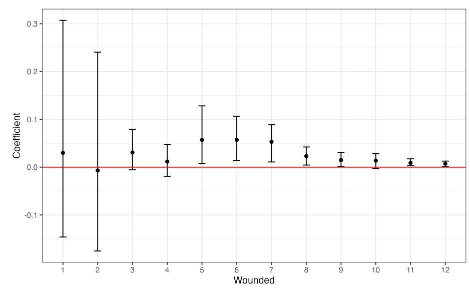


(d) Total marginal effect of terrorism

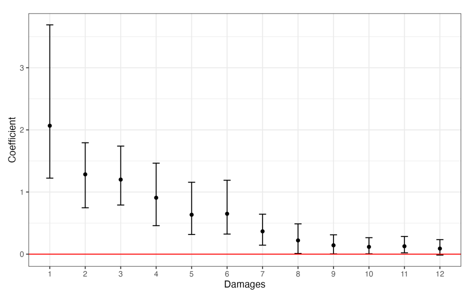
Figure 13: FDC Results - Effects on Average Voter Turnout. The 95% confidence interval represented by the plots reflects the bias-corrected and accelerated c.i., 5,000 bootstrap replications. Plot *a)* represents the mediated effect of terrorism through the presence of deaths. Plot *b)* represents the mediated effect of terrorism through the presence of the wounded. Plot *c)* represents the mediated effect of terrorism through the presence of physical damages. Plot *d)* represents the effect of terrorism.



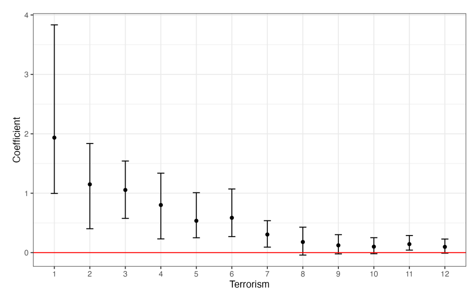
(a) Mediated effect of deaths



(b) Mediated effect of wounded



(c) Mediated effect of damages



(d) Total marginal effect of terrorism

Figure 14: FDC Results - Effect on Voter Turnout (Early Check for Potential Spatial Spillovers). The 95% confidence interval represented by the plots reflects the bias-corrected and accelerated c.i., 5,000 bootstrap replications. Plot *a)* represents the mediated effect of terrorism through the presence of deaths. Plot *b)* represents the mediated effect of terrorism through the presence of the wounded. Plot *c)* represents the mediated effect of terrorism through the presence of physical damages. Plot *d)* represents the effect of terrorism.

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