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**Working Paper**

## Rally Post-Terrorism

CESifo Working Paper, No. 9638

**Provided in Cooperation with:**

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

*Suggested Citation:* Chen, Shuai (2022) : Rally Post-Terrorism, CESifo Working Paper, No. 9638, Center for Economic Studies and ifo Institute (CESifo), Munich

This Version is available at:

<https://hdl.handle.net/10419/260768>

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# Rally Post-Terrorism

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## **Impressum:**

CESifo Working Papers

ISSN 2364-1428 (electronic version)

Publisher and distributor: Munich Society for the Promotion of Economic Research - CESifo GmbH

The international platform of Ludwigs-Maximilians University's Center for Economic Studies and the ifo Institute

Poschingerstr. 5, 81679 Munich, Germany

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Editor: Clemens Fuest

<https://www.cesifo.org/en/wp>

An electronic version of the paper may be downloaded

- from the SSRN website: [www.SSRN.com](http://www.SSRN.com)
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# Rally Post-Terrorism

## Abstract

This study examines whether the rally ‘round the flag phenomenon is present in the context of terrorist attacks, and investigates the explanations for the related increase of confidence in political institutions and political approval of the incumbent’s job performance. I exploit variations in terrorist occurrences and results across sub-national regions among EU countries from 2008 to 2016. I restrict the sample to only regions where at least one attack took place during the data period, in order to mitigate concerns over selectivity of terrorism in particular areas. I empirically show that both terrorism occurrence and its results (successful or failed attacks) are plausibly exogenous to the prior political and economic climate. Conducting a difference-in-differences analysis, I compare changes in political confidence and approval among individuals who were exposed to an attack in their region to those who were not. With another more sophisticated identification, I also compare such political changes after successful attacks to those after failed attacks of the same type. I find that post-terrorism, individual political confidence and support significantly increased by more than 10 percentage points, and that this political increment was 5 percentage points after successful attacks relative to failed ones. Furthermore, I explore various potential channels suggesting patriotism and civic engagement as mechanisms while rejecting perceived economic capture and political acquisition as alternative explanations. This paper first empirically analyzes the driver of the rally effect of terrorism by disentangling voluntary solidarity from economically or politically elicited solidarity.

JEL-Codes: D740, H120, P160.

Keywords: Rally ‘round the flag effect, terrorism, confidence in institutions, political approval, patriotism, economic capture, political acquisition.

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The author wishes to thank Raymond Fisman, Olle Folke, Laurence van Lent, and Johanna Rickne for their helpful comments and suggestions on this article and Michael Jetter for the insightful conversation at an early stage of this project, as well as seminar participants at LISER, Tilburg, Groningen, and attendees at the 2020 ASREC 24 Hours Conference, the 2021 RES, ESPE, ES Asian Meeting, ES China Meeting, ES Australasia Meeting, the 13th Joint IOS/APB/EACES Summer Academy on the Economics of Populism, CESifo 15th Workshop on Political Economy, AASLE, and ES European Winter Meetings for their comments.

# 1 Introduction

Following international crises such as wars and epidemics, we often observe a rise in popular support for the national leadership. Such a phenomenon is defined in political sciences literature as the “rally ’round the flag” effect. As international logistics and collusion become easier, terrorism has in turn become a more serious worldwide threat and an important source of the potential rally phenomenon.

The current study examines the possibility of the rally effect by investigating the influences of localized terrorism at the sub-national level on individual confidence in national political institutions and political support for the country’s leader in the European Union. Moreover, I try to distinguish various potential mechanisms that may facilitate understanding whether such political solidarity is more likely to be voluntary or to be elicited by the political incumbent.

Specifically, I manually assemble a comprehensive individual survey with the universe of terrorist attacks in the EU at the first order sub-nationally regional level in 2008–2016. This is possible through survey information available for the interview date and location. In this way I connect experience of terrorism to individual confidence in political institutions and political approval. I examine both confidence in the national government and approval of the country leader’s performance.

I apply a difference-in-differences (DID) approach to compare changes in political confidence and approval among individuals who were exposed to a terrorist attack in their region to those who were not. I restrict the estimation sample to individuals residing in regions that were hit by at least one attack during the relevant data period of 2008–2016. The sample restriction is because targeted regions may differ from non-targeted ones in various aspects including the political landscape. Such a geographic heterogeneity might also intertwine with local political shocks to trigger the occurrence of terrorist incidents.

Inspired by Brodeur (2018), I take two steps to verify my identification strategy. First, I show that the occurrence of terrorism is orthogonal to various potential confounding attitudes to and perceptions of law and order, politics and economic conditions in the period of one year, six months, or three months before the occurrence of a terrorist attack. Thus, I argue that the attack is plausibly exogenous to the prior political and economic climate that may be correlated with individual political confidence and approval. Second, in the same way I again provide evidence that the success or failure of terrorism (conditional on its occurrence) is also plausibly exogenous to the perceived political and economic situation before the attack. The identification of the terrorism effects then comes from

the “inherent randomness” of the success or failure of an attack (Brodeur, 2018). With this more sophisticated strategy, I instead compare changes in political confidence and approval after successful attacks relative to failed ones. By the two means, I document a consistent rally effect after terrorism. Additionally, by controlling for characteristics of terrorist incidents, such as types of attack, international or domestic logistics, and the salience of consequences, I compare attacks of the same class. Generally speaking, successful terrorism causes more significant damage and/or attracts higher media attention than failed terrorism (Brodeur, 2018). Thus, intuitively the former may have a more substantial effect than the latter.

I find that in the subsequent months up to one year post-attacks, the likelihood of having confidence in the national government increased by 6 to 11 percentage points. Moreover, the likelihood of approval of the country leader’s performance rose by 8 to 13 percentage points after a terrorist incident. The rally effect is thus exhibited post-terrorism.

In a second step, I explore potential channels through which terrorism affects individual political confidence and approval. First, I establish the mechanisms of patriotism and civic engagement. In regions hit by terrorist attacks, stronger patriotism may prevail among civilians. With proxies for patriotism, I document a significant improvement in nationalist sentiment following terrorism. I also find that the increases in political confidence and approval after attacks launched by domestic perpetrators were only half as large as those after attacks launched by non-domestic terrorists. This evidence may also reflect a nationalist attachment. Another mechanism of civic engagement may come into effect if residents participate in activities of community rebuilding and need aid and support from the government. Their impression of the government may improve through cooperation with it in these activities. I find evidence for enhanced civic engagement and reduced dissent from officials after terrorist incidents, which may suggest this channel of civic engagement.

I then investigate other alternative explanations relating to perceived economic capture and political acquisition by the government. After a terrorist incident takes place, the government may allocate economic resources to the affected region to pacify local civilians and maintain their political support. Without direct measurements of resource allocation, I instead analyze the before and after terrorist incident variation in a composite index of satisfaction with various aspects of the residents’ area, including infrastructure, housing, and so forth, as well as variations in confidence in the police and perceived safety in the local region. I do not find any significant effects from the subjective or perceived

reallocation of economic resources to the targeted areas. Given the subjective nature of political confidence and approval, perceived economic capture does not seem to play an important role in explaining the political effects of terrorism. Further, a government may grant more political freedom in order to acquire local support. Examining the perceived freedom of expressing political views and the perceived freedom of the media, I do not find evidence for any corresponding improvement after terrorism. On the basis that the European Union is already an advanced democracy, there may not be much room in terms of franchise extension for the government to manipulate.

Furthermore, I examine heterogeneity with respect to individual characteristics such as gender, employment status, educational attainment and age cohort, and terrorist logistics and consequences, as well as the geography and institutions within the EU. Investigating these characteristics helps to determine which specific subgroups and which classes of attacks have driven the rally effect. I find that the improvement in political confidence and approval following terrorism was present more prominently among women, people who were non-employed, those without a college degree, and those older than 50. Nevertheless, such political trust and support was substantially reduced among college degree holders post-terrorism. Further, the rally effect was considerably stronger after terrorism with non-domestic logistics than that with domestic logistics, and was reduced or even reversed following rare major attacks with substantial casualties and damage. Lastly, confidence in the national government rose more substantially after terrorism in Central and Eastern Europe than in Western Europe, while the situation concerning support for the country leader's performance was the opposite.

This study addresses several strands of relevant literature. Principally, it adds to the growing academic discussion on the political consequences of terrorism. The first focus of the discussion is on support for and attitudes toward the incumbent. Gassebner et al. (2011) analyzed more than two thousand cabinets in over 150 countries in 1970–2002 and found that on average, terrorism shortened cabinet duration. Using the timing of the terrorist attacks in Madrid on 11 March 2004, only three days before the congressional election, Montalvo (2011) compared individuals voting before the terrorist acts to those voting afterwards. He documented a negative impact of the attacks on electoral support for the ruling conservative party. Kibris (2011) used the security force casualties in the fight against terrorists as a measurement of the terrorist level in Turkey and found that Turkish voters were sensitive to these incidents. They blamed the government for the losses. Chanley (2002) and Perrin and Smolek (2009) investigated the aftermath of the September 11 attacks in the U.S. and documented an increase in trust in the

national government. Similarly, Dinesen and Jæger (2013) examined the changes in trust in institutions after the 3/11 Madrid terrorism, and expanded the types of institutions to politics, the media, and justice. Somewhat less related is the work of Bozzoli and Müller (2011) who used the London terrorist attacks in 2005 as a shock to examine individual risk perception. They found that terrorist-induced risk assessment enhanced the willingness to trade off security for liberties. Linking changes in individual democratic attitudes to regional variations in terrorist attacks in Pakistan, Rehman and Vanin (2017) identified a positive association between persistent exposure to terrorism and lower support for democratic values.

The work closest to my own is the concurrent study by Peri et al. (2021) that also explores the rally syndrome following terrorism in Europe as well as attitudes to immigration, using European Social Survey data. The authors document increased trust in the country's parliament and satisfaction with the national government, but little evidence for changes in attitudes to immigration. Compared with this, and also prior work, my study adds to the literature in the following aspects: first, I aim to use more micro-based data at the individual level, by combining specific characteristics of terrorism such as attack types, logistics and salience. This approach facilitates the comparison of attacks of the same class and allows comparison between successful attacks and failed attacks of the same type, and hence can improve the identification of causal effects. I exploit two identification strategies using terrorist occurrence and results, respectively, to verify the robustness of my results and conclusions. Second, the rich Gallup survey data in my study help to better delineate potential mechanisms of the terrorism-induced rally effect. I am able to simultaneously explore different channels by analyzing proxy variables for patriotism, civic engagement, perceived economic capture and political acquisition by the government. Thus, this study offers the first attempt to empirically disentangle voluntary solidarity from economically or politically elicited solidarity in the context of terrorism. Finally, I establish the post-localized-terrorism rally effect at the individual level, in terms of both the national political institutions and the country's leader. Following localized terrorism in the EU, not only did individual confidence in national governments increase, but individual support for the country leaders' performance also improved.

Another focus of the political discussion is on the corresponding shift of the political landscape post-terrorism. Gould and Klor (2010) relied on geographic variations in terrorism from 1988 to 2006 in Israel to investigate political responses of Israelis. They found that Israelis became more willing to make territorial concessions and shifted their political landscape to the left following terrorist incidents. Even though Israelis tended



to vote for right-wing parties, these parties moved to the left after terrorism.<sup>1</sup> Using a German individual panel from 1999 to 2003, Schüller (2015) studied the effect of the 9/11 terrorist attacks on political mobilization and detected a resulting shift in a conservative direction. Alesina et al. (2019) developed a model in which voting for parties against criminal organizations decreased after violence conducted by these organizations. They found empirical support with large data in Sicily and across Italian regions. Combining long-term individual panels from several Western countries with global terrorism information over 20 years, Akay et al. (2020) found that global terrorism reduced subjective well-being and raised the intention to vote for conservative parties. Giavazzi et al. (2020) utilized a machine learning method to analyze texts of Twitter users in Germany. They discovered that after terrorism and criminal events, Twitter texts on average became similar to those of the far-right party AfD. They also found an association between these shifts in textual similarity and changes in the vote shares in federal elections. There is an exception, however. Baccini et al. (2019) exploited the same identification strategy as Brodeur (2018) to examine the impact of terrorism on voting behavior in the United States. Based on an exhaustive list of terrorist incidents in 1970–2016, they showed no effect of successful terrorism on presidential or non-presidential elections. The vast majority of the above studies presented a political inclination toward the right-wing or conservative parties in the mid or long term. By contrast, the current paper deals with the short-term, prompt political responses to terrorist attacks. Additionally, elections may take place some time after the incidents already, and be highly sensitive to the contemporary campaign of candidates. Hence, rather than voting that could be distant from attacks, I examine individual political attitudinal reactions directly after terrorist incidents.

Moreover, my paper complements the literature on the economic impact of conflicts or unrest. With regard to terrorism, Abadie and Gardeazabal (2003) documented a 10 percentage point reduction of GDP per capita in the Basque Country following the outbreak of terrorism in the late 1960s compared with a synthetic control region. Bloom et al. (2007) showed that during periods of high uncertainty, such as after 11 September 2001, the responsiveness of investment by firms to any given policy stimulus may be much weaker. Analyzing Israelis' reactions to terrorism during the "Al-Aqsa" Intifada, Becker and Rubinstein (2011) found that occasional users reduced their demand for goods and services subject to terrorist attacks as a response to fears of future dangers. Brodeur

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<sup>1</sup>Berrebi and Klor (2006, 2008) and Getmansky and Zeitzoff (2014) also documented an increase in voting for right-wing parties in response to terrorism in Israel.

(2018) noted that successful terrorist attacks reduced jobs and total earnings in affected regions relative to failed attacks. The successful terrorist attacks especially diminished housing prices and raised consumer pessimism about business and buying conditions. Terrorism leads to economic resource reallocation and increased expenditure in counterterrorism. For instance, Di Tella and Schargrotsky (2004) and Draca et al. (2011) both documented a notable increase in police deployment immediately after terrorist incidents in targeted regions, and a resulting reduction in the local crime rate. According to the calculation by Mueller and Stewart (2014), domestic counterterrorism spending per year was 25 billion US dollars in 2010 before the September 11 terrorist attacks, where the expenditure increased three-fold in the subsequent decade. In addition to counterterrorism measures, an incumbent may also try to accommodate the crisis in a political way by extending the franchise (Acemoglu and Robinson, 2000a,b, 2001; Besley and Persson, 2011; Aidt and Franck, 2015), or may attempt to acquire support in an economic way by reallocating resources to affected regions (Zhu, 2018; Maffioli, 2020).<sup>2</sup> In the current study, I not only investigate both channels of perceived economic capture and of perceived political acquisition by the government post-crisis, but also analyze whether these strategies work. I document no significant improvements in confidence in the police or perceived safety, no significant perceived economic resource reallocation, and no increase in perceived political freedom in the targeted regions from the perspective of citizens.

Last but not least, the current study is closely related to research on changes in political trust and citizen cooperation corresponding to changes in institutional performance. Some studies in political science, e.g. Mishler and Rose (2001), Rothstein and Stolle (2008) and Zmerli and Newton (2008), argue that political trust is endogenous to the performance of political institutions; that is, confidence in political institutions is a consequence of rather than a cause of their performance. This idea was modeled as “consensually strong state equilibrium” by Acemoglu (2005). Among empirical studies in economics, Aksoy et al. (2020) found a persistent negative impact of epidemic exposure in people’s “impressionable years” on confidence in political leadership and institutions. Such results are mainly driven by individuals in weak states incapable of acting against epidemics, thereby disappointing citizens. Dell et al. (2015) documented that in Northern Vietnam, where there was a stronger bureaucratic capacity, citizens were more able to organize and cooperate with local government. Furthermore, using high stakes lab-in-the-field experiments in Pakistan, Acemoglu et al. (2020) find that receiving information

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<sup>2</sup>Political connections with firms (Shleifer and Vishny, 1994; Fisman, 2001; Faccio, 2006; Hodler and Raschky, 2014) further facilitate such resource allocations.

on the improved service delivery of state courts increased citizens' willingness to interact with and trust in the courts. People with updated information also reduced their interactions with non-state actors. My study, by comparison, documents increased confidence in political institutions and political approval among citizens in adversely affected regions, who may not even perceive improvements in local community basics following terrorist incidents. This may even be the case if a government failed to prevent terrorism (i.e., an attack was successful). However, additional analyses in the current study also suggest that the rally effects are not independent of a government's performance against terrorism: an increase in political trust and support indeed diminished or even reversed if terrorist acts occurred repeatedly in a region over time and their consequences were major. Moreover, I provide evidence for reinforced citizens' civic engagement, as well as reduced dissent from officials after terrorist incidents.

## 2 Data

In my analysis, I combine Gallup Worldwide Research survey data with the Global Terrorism Database (GTD). The Gallup Worldwide Research draws a nationally representative random sample of individuals annually from more than 150 countries around the world. Every year it typically surveys around 1,000 individuals in every country, with either a one-hour face-to-face interview or a 30-minute telephone interview. This cross sectional data includes respondents' personal characteristics, such as gender, age, highest completed level of education, marital status, number of children living in the household, whether the respondent was born in the surveyed country, and employment status. In addition, the survey asks a set of core questions covering topics, including well-being, political opinions, religious opinions, etc. Importantly, the data records the date and the first order sub-national administrative region for when and where the individual interview was conducted, which is exploited later to merge with the terrorism data. Data are available for the period 2008–2016.

The Global Terrorism Database (GTD) documents over 190,000 international and domestic terrorist attacks that took place around the world from 1970 to 2018. The data defines terrorist attacks as “the threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation.” To be included in the GTD, an incident has to present three attributes: it must be intentional, it must entail some level of violence or immediate threat of violence, and the perpetrators of the incident must be sub-national actors. In

addition, the incident must meet at least two of three criteria: first, the act must be aimed at attaining a political, economic, religious, or social goal; second, there must be evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) than the immediate victims; and third, the action must be outside the context of legitimate warfare activities. In the current study, I follow the above definition and rules. For the vast majority of terrorist incidents filed, the data include information about the date and location, the type of the attack, whether the attack was successful or not, the weapons used, the nature of the target, the number of casualties, and the identity of the perpetrator(s). Table 1 displays the means of some important characteristics for the attacks in my estimation sample. Among these 540 terrorist incidents in EU countries from 2008 to 2016, almost 70 percent were successful. The most frequent types were bombings and infrastructure attacks, accounting for about 80 percent of the total incidents. The most common weapons used were bombs and incendiary devices, which sum up to more than 80 percent. An attack is considered internationally logistic if the nationalities of the whole perpetrator group differ from the attacked location. This kind of attack accounts for 6.5 percent of all the incidents and is more salient and consequential than the average terrorist incident. The success of terrorist attacks is defined based on the attack type that took place, so is thus dependent on the latter factor.<sup>3</sup>

I link the GTD to the Gallup survey with information on the calendar date and the first order sub-national region. Successfully combining the two data sets relies on precise information in the GTD for the date and location of terrorist attacks. If such information is missing for an incident in a country, to avoid contamination in the treatment effect I drop all the observations of that country in my sample. I focus on the European Union 27 member states. However, I exclude Greece and Sweden due to missing information mentioned previously. Figure 1 illustrates the first order sub-national regions in the estimation sample where terrorist incidents occurred in the period 2008–2016. The darker the color, the more frequently terrorist incidents took place. These incidents are scattered more extensively in Western Europe than Eastern Europe within the EU, and more concentrated in metropolitan areas, especially the capitals.

To provide an overview of the assembled data, I illustrate the histograms of my outcome variables by terrorism occurrence in Figure 2 and by terrorism results in Figure 3.<sup>4</sup>

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<sup>3</sup>Appendix C reports the types of terrorist attacks and their corresponding definitions of success in the Global Terrorism Database.

<sup>4</sup>The definitions and descriptives of the relevant variables in the baseline models are provided in Appendix A.

In Figure 2, the grey bars denote observations of where and when a terrorist incident took place, and the white bars represent observations without any terrorism. It is clear that the proportions of having confidence in the national government and satisfaction with the country leader’s performance (that is, with a value of 1) are greater among observations with terrorism than those without. This phenomenon suggests the rally ’round the flag effect after terrorist attacks. Moreover, it is also interesting to note that without terrorism, the majority (about 60 percent) of my sample had no confidence in their national government and disapproved of their country leader’s performance (with a value of 0). However, with terrorism the majority (about 55 percent) of them had confidence in the national government and approved of their country leader’s performance (that is, with a value of 1).

I then compare political confidence and approval between successful and failed terrorist attacks, in Figure 3. The dark gray bars indicate observations with successful terrorist incidents and the light gray bars denote observations with failed attacks. As in the previous figure, the majority of the respondents had confidence in the national government and approved of their country leader’s performance after a successful terrorist incident. Nonetheless, in case of failed attacks, the majority disapproved of the leader’s performance, though they still had confidence in the national government. Furthermore, the proportion having confidence in the national government appears slightly higher after successful attacks than failed ones.<sup>5</sup>

### 3 Empirical Strategy

It is difficult to identify the causal effects of terrorism on confidence in political institutions and political approval, as the political landscape of targeted regions may be different from that of non-targeted ones. Moreover, some unobserved political shocks may also trigger the occurrence of terrorism. In line with Brodeur (2018) and Baccini et al. (2019), I address the potential endogenous problem in two steps. First, I restrict the estimation sample to targeted regions only; that is, regions where a terrorist attack was recorded, regardless of whether it was successful or not. Second, I show that both the occurrence and the result (the success or failure) of terrorism are orthogonal to the

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<sup>5</sup>The unconditional histogram in panel a of Figure 3 does not necessarily imply no divergent changes in confidence in the national government after a successful terrorist attack rather than a failed one. When comparing variations in these political outcomes, it is necessary to account for the benchmark levels without terrorism, as in Figure 2 for the same region and the same period of time. By this means, I alleviate effects due to, for example, geographic economic differences or business cycles.

potential confounding attitudes to and perceptions of law and order, politics and economic conditions before the terrorist act. At the end of this section I provide evidence to support my identification strategy.

To begin with, I use OLS in a difference-in-differences (DID) framework<sup>6</sup> to study the effects of terrorist occurrences on confidence in the national government and support for the country leader’s performance. The baseline model is specified as

$$y_{itr} = \beta_T T_{itr} + x' \beta_x + \alpha_t + \theta_r + \epsilon_{itr} \quad (1)$$

in which  $i$  denotes individuals,  $t$  (January 2008–December 2016) stands for calendar months in different years, and  $r$  refers to the first order sub-national administrative regions in my sample of the EU member states.

On the left-hand side,  $y$  represents a dummy of confidence in the national government, or a dummy of approval of the country leader’s job performance in the main analysis.<sup>7</sup>

On the right-hand side,  $T$  is a dummy for the post-terrorism phase if an individual experienced an attack in their region, whether or not it was successful.<sup>8</sup> In the baseline model, I set the post-terrorism period as one quarter after the month of attack—the month when it happened (if the respondent answered the survey after the attack in that month) and the following three months.<sup>9</sup>  $\beta_T$  is the parameter of interest that identifies the effects of a terrorist attack.

$x$  denotes a vector of individual demographic and socio-economic characteristics such as a dummy for male gender, the quadratic of age, dummies for completed educational levels (secondary school, and college and above) with primary school as the omitted

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<sup>6</sup>De Chaisemartin and d’Haultfoeuille (2020) show that this conventional DID estimator is a weighted sum of the treatment effects in all the treated cells. They argue that the possible negative weights may be an issue if the average treatment effects (ATEs) are heterogeneous across, in the context of our study, regions or periods. Thus they provide a test computing the weights of the DID estimator to evaluate whether treatment effect heterogeneity is a serious concern or not. Based on their test, for the estimate of terrorist effect on confidence in the national government, 91% of the weights are strictly positive and only 9% are strictly negative; the positive weights sum to 1.002 while the negative weights sum to only -0.002. Moreover, the estimator and the average treatment on the treated (ATT) may be of opposite signs if the standard deviation of the ATEs across all the treated cells is equal to 0.136; the estimator may be of a different sign than the ATEs of all the treated cells if the standard deviation of those ATEs is equal to 2.036. Both standard deviations require a relatively substantial and unlikely amount of heterogeneity. For the estimate of terrorist effect on approval of the job performance of the country leadership, the situation is very similar. Therefore, treatment effect heterogeneity is not a serious concern in the current empirical analysis.

<sup>7</sup>Details of specific questions about the outcome variables can be found in Appendix C.

<sup>8</sup>If residents in neighboring regions of the targeted region were also affected by the attack and hence responded in their political confidence and approval, my model results would be underestimated and the “true” rally effects would be even larger.

<sup>9</sup>I change this post-terrorism phase as a sensitivity analysis and reach the same conclusion.

category, dummies for marital status (married, domestically partnered, separated, divorced and widowed) with never married as the reference, number of children living in the household, a dummy for being born in the country surveyed, and dummies for unemployment and being out of labor force, with employment as the omitted category.  $x$  also includes terrorism covariates, such as attack type fixed effects, a dummy for logistically international attacks, a dummy equal to 1 if it is unknown whether an attack was logistically international or not, and another dummy for a major attack, specifically an attack resulting in property damage greater than one million US dollars or with more than ten deaths. It is of importance to include these terrorism relevant variables in the model. They provide the capacity to compare attacks of the same class and to explore the potential heterogeneous effects of different classes of terrorist attacks.

Further,  $\alpha_t$  indicates time period fixed effects and  $\theta_r$  represents region fixed effects. These two sets of dummies are vital to capture, respectively, time variations common to all regions and time-invariant geographical heterogeneity. For example, the common part of influence of the Great Recession is captured by  $\alpha_t$ , and the variations in a state's capacity to deal with terrorism or geographically differential economic conditions are accounted for by  $\theta_r$ . As sensitivity analyses displayed in Section 4.4, I include country  $\times$  year fixed effects to account for country-specific and time-varying unobservables, such as counterterrorism measures and spending. I also include region-specific time trends to identify the developments of political confidence and approval divergent in different regions over time. I further add interactions of post-terrorism and individual covariates to capture potential responses of these characteristics to terrorist attacks. Lastly,  $\epsilon$  is an error term.

The DID approach requires a parallel trends assumption. To examine the trends of the outcome variables for individuals before they were exposed to terrorism versus those who did not experience such events, in Eq.(1) I add a set of dummies for one quarter, two quarters, and three quarters to one year before an attack, respectively. If the coefficients of these quarterly dummy variables pre-terrorism are non-significantly distinguishable from zero, it is evidence of parallel pre-trends. The corresponding estimates are visualized in Figure 4. The figure shows that all estimates pre-attacks are non-significantly different from zero at the 5 percent level. Moreover, the coefficients for three months and six months after a terrorist incident are significant for both outcome variables, while the estimates nine months after attacks already lose the significance. Hence the figure implies that the effects of terrorism on confidence in political institutions and political approval are merely short term.

I then adopt a more sophisticated identification strategy, advocated by Brodeur

(2018), by comparing successful attacks with failed attacks of the same type. This strategy relies on the “inherent randomness” of the success or failure of terrorist incidents conditional on the targeted locations. The model is rewritten as

$$y_{itr} = \beta_s S_{itr} + \beta_T T_{itr} + x' \beta_x + \alpha_t + \theta_r + \epsilon_{itr} \quad (2)$$

where  $S$  indicates a dummy for the post-terrorism period if an individual experienced a successful attack in their region.  $\beta_s$  now becomes the parameter of interest that captures the effects of a successful attack relative to a failed attack of the same type.<sup>10</sup> All other variables are the same as those in Eq.(1).

Similar to Figure 4, Figure 5 displays the coefficient estimates in the same type of event study, by separating successful terrorist attacks from failed ones. Following the occurrence of terrorist incidents (the vertical dashed line), the red circle estimates with thick segments denote successful attacks and the green square estimates with thin segments refer to failed ones. The rally phenomenon was evident straight after successful terrorist attacks within one quarter and disappeared in the second quarter, while it materialized more slowly after failed terrorism.

Using regional-level data, Brodeur (2018) showed that the success (or failure) of terrorist attacks is plausibly random. Using a similar method, I verify with my individual-level data that both the occurrence and the result—success or failure—of terrorism are orthogonal to potential confounding factors in respect of (perceived) local law and order, corruption in government and business, life satisfaction and freedom, opinions about the place of residence, and economic conditions, as well as various political attitudes before the occurrence of a terrorist incident. By this means, I argue that a terrorism occurrence and its results are plausibly exogenous to the political and economic climate pre-event that may be correlated with individual political attitudes and trust in political institutions. Specifically, Table 8 in Appendix B displays model estimates in which I regress the occurrence (the first three columns) and the success (the last three columns) of terrorist incidents on all the above confounders, as well as covariates in Eq.(1), with observations in the phase of one year before to three months before a terrorist attack. I utilize only observations with terrorism to predict their success, thus the number of observations is considerably smaller than in the first three columns. In the table, only a few coefficients of the potential confounders are significant at the 5 percent level. Even for those, the

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<sup>10</sup>If a failed attack has smaller effects than a successful one in the same direction, then my estimates are a lower bound for the effects of terrorism; that is, the effects relative to non-terrorism.



magnitude is trivial or the significance is not consistent or robust to different pre-terrorist periods. The estimates suggest that this large set of potential confounders is considerably balanced between individuals before they were confronted with a terrorist incident and individuals who were not exposed to terrorism, as well as between individuals before they experienced a successful terrorist attack and individuals before they faced a failed one. Therefore, neither the occurrence nor the result of terrorism can be predicted by the perceived political and economic conditions before the attack. In other words, a terrorist attack occurrence and its results are plausibly exogenous to the politico-economic climate prior to the attack. I exploit both strategies based on the occurrence and results of terrorist incidents in the empirical analysis. Their estimates are in accord.

## 4 Parameter Estimates

### 4.1 Effects of Terrorism on Political Confidence and Approval

Table 2 provides an overview of the main parameter estimates for the effects of terrorism on confidence in the national government and on political approval of the country leader's performance.<sup>11</sup> The first column includes region fixed effects and time period fixed effects, without other controls. Column (2) adds individual characteristics and column (3) further includes terrorism covariates. Column (4) displays the results of the more sophisticated model—the effects of successful terrorist attacks in comparison with failed ones. The last column shows the effects of successful attacks and failed attacks (relative to non-terrorism) simultaneously.

– Table 2 about here –

Panel a reports the estimates for confidence in the national government. In the European Union, after terrorist attacks the probability of having confidence in the national government significantly increased by 8 to 11 percentage points across different model specifications in columns (1) to (3). The divergence in the size of the effect indicates the importance of the terrorism covariates. Without taking them into account, the political effects could be neutralized by different classes of attacks.<sup>12</sup> In column (4), compared with failed attacks, successful terrorist incidents increased this probability by 6.5 percentage

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<sup>11</sup>Full parameter estimates are available on request.

<sup>12</sup>Later, I will show that different classes of terrorist attacks exerted heterogeneous or even opposite influences on political confidence and approval.

points significantly; the occurrence of terrorism (also the failed events compared with non-terrorism) increased the probability by 4.5 percentage points, though non-significantly. If we sum up the two coefficients in column (4), we obtain the effect of successful terrorist attacks relative to non-terrorism. The magnitude of the sum is the same as the estimate in column (3) since successful attacks dominate not only the number but also the impact of terrorism (see the descriptives in Table 1). In the last column, one can more clearly see the effects of successful terrorist incidents and failed ones in comparison with no terrorism. Both terrorist event types had a positive impact on political confidence, although the effect of successful attacks was more economically and statistically significant. More importantly, I find that the effects and their sizes are consistent across specifications in columns (3) to (5). Thus, both identification strategies in column (3) based on terrorism occurrence and in column (4) based on the results of terrorist acts draw the same conclusion. I prefer the estimates in column (3) for parsimony and regard them as the baseline.

Likewise, panel b presents the effects on the approval of the country leader's performance. The occurrence of terrorist attacks significantly raised the probability of approval of the country leader's performance by 6 to 13.5 percentage points, depending on the model specification. Successful attacks significantly increased the performance approval by about 5 percentage points relative to failed ones (column (4)), and by 13.5 percentage points compared with non-terrorism (column (5)).

## 4.2 Potential Mechanisms

In this subsection, I explore potential mechanisms through which terrorist attacks could have affected confidence in political institutions and political approval. I document that terrorism could have an effect by triggering stronger patriotism and civic engagement among citizens. However, I do not find evidence for the alternative channels of perceived economic capture or political acquisition by the government.

### 4.2.1 Patriotism

Patriotism is one mechanism that may drive the rise in political confidence and approval post-terrorism. This proposed mechanism is inspired by literature dealing with the rally 'round the flag effect, in which the Patriotism School argues that crisis-induced nationalist sentiment translates into political support for the leadership after (international) crises.

In panel a of Table 3, I use unwillingness to move abroad ideally (after a terrorist

attack) as one proxy for patriotism. Dreher et al. (2011) show that terrorist incidents boosted skilled emigration due to deterioration in local living and working conditions. If even in an ideal situation individuals would be less likely to move abroad after a terrorist attack, it reflects a strong nationalistically attached sentiment. After attacks, the probability of being willing to permanently move abroad in an ideal situation reduced by 8.7 percentage points significantly. Among the potential emigrants ideally, the likelihood of planning to leave their country within the following year decreased by 7.4 percentage points significantly post-attacks. These results are consistent with the patriotism mechanism: terrorist incidents happening in a person's region of residence improve their country attachment and hence decrease their willingness to move abroad and to move soon. Later, as a heterogeneity analysis, I show that political confidence and approval improved two-fold after attacks launched by non-domestic terrorists compared with after attacks launched by domestic perpetrators. This difference is in accord with the idea of nationalist attachment.

#### **4.2.2 Civic Engagement**

Next, I study the potential channel of civic engagement. After the occurrence of terrorist incidents in their region, residents may be motivated to participate in rebuilding and enhancing their own local community. Needing support from the government and/or cooperating with the government in reconstruction activities, individuals may have greater political confidence and approval. I examine different dimensions of civic engagement: charity donation, volunteer participation in an organization, providing help to a stranger, and opinion voiced to a public official.

Panel b of Table 3 reports the results. Post-terrorism, the probabilities of charity donation and helping strangers significantly rose by around 3 percentage points and 6.5 percentage points, respectively. However, the likelihood of people voicing their opinion to a public official significantly reduced by about 4 percentage points. This last result makes sense, in that after a terrorist attack, citizens engage in civic events and cooperate with institutions, and are hence less likely to voice dissenting opinions to public officials.<sup>13</sup> The estimates in panel b provide evidence for enhanced civic engagement among residents in adversely affected regions, and thus support the channel of civic engagement.

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<sup>13</sup>Another piece of evidence for less political dissent following terrorism is illustrated in Figure 4: Immediately after attacks (i.e., in the first quarter post-terrorism), not only did the average probabilities of political confidence and approval improve, but their standard errors and hence variances also shrank. This suggests that people became more united with political institutions.

– Table 3 about here –

### 4.2.3 Economic Capture

After a terrorist incident occurs, in addition to immediate responses such as rescuing victims and hunting for and arresting perpetrators, the government may take strategic measures to pacify civilians, especially in the impacted region, to preserve their confidence and support. By allocating economic resources to the targeted region and improving (or at least maintaining the pre-terrorist incident) perceived local economic climate, the government will gain approval from civilians affected by terrorism. I term this strategy “economic capture.” The economic capture in this case goes beyond the necessary measures of crisis aid or management, such as reconstruction of the facilities damaged in an attack.

In panel c of Table 3, I present the estimates for the possible mechanism of perceived economic capture by the government. The dependent variable in column (1) is an economic capture index of area basics. This index is constructed based on dummy variables of satisfaction with a series of elements in the respondents’ area of residence. These elements, or “basics,” include infrastructure, such as roads and highways, the public transportation system, housing availability, the educational system or schools, and healthcare availability.<sup>14</sup> If the government allocates economic resources to targeted regions, these basics may improve. Lacking an objective measurement for improvement of these elements, the capture index made up of satisfaction with basics provides a perceived composite alternative.

Column (1) in panel c displays the effects of terrorism on the economic capture index. The index non-significantly increased by 0.017 (in a range of 0–1) after a terrorist incident. That is to say, on average civilians’ satisfaction with the overall area basics improved by around 1.7 percentage points non-significantly after their region of residence was hit by an attack. Thus, the perceived economic capture mechanism does not seem important in explaining the effects of terrorism on confidence in the government and approval of the country leader’s performance.

The government may redeploy more police officers to improve protection in targeted regions after the occurrence of terrorism (Di Tella and Schargrodsky, 2004; Draca et al., 2011), and this could be regarded as part of economic resource reallocation. Hence, in

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<sup>14</sup>Details of specific questions about these elements and how the index is created can be found in Appendix C.

column (2) and (3) of panel c, I examine the influence of terrorism on the dummies of having confidence in the police and feeling safe while walking alone at night. However, I find neither significant nor sizable effects on confidence in the police or perceived safety.

In this subsection, I do not attempt to argue that governments have not tried to economically capture political support or improve the security measures in targeted areas following terrorism. Instead, I document that citizens in impacted regions did not perceive significant improvements in these community basics. Considering the subjective and perceived characteristics of political confidence and approval, I do not find evidence that the increased levels of political trust and support post-terrorism can be attributed to the perceived reallocation of economic resources to the relevant areas.

#### 4.2.4 Political Acquisition

Along with the economic resource allocation, governments may extend the franchise to acquire local political support after terrorist attacks. In authoritarian regimes, democratization can become a concessionary option under the threat of widespread unrest (Acemoglu and Robinson, 2000b; Aidt and Franck, 2015). Nevertheless, the room for extending the franchise is limited in advanced democracies such as the EU. Thus, I examine the changes in the (perceived) freedom of expressing political view, and the (perceived) freedom of the media, rather than changes related to voting rights.

In the last panel, the negative coefficient estimates of *Post-attack* are significant for both (perceived) freedom indicators. If the government's strategy of franchise extension worked, we would see a significant rise in these measures of political freedom post-terrorism. Hence, political acquisition does not seem to be a mechanism.<sup>15</sup> The significant negative impacts of terrorism occurrence on perceived freedom could be interpreted as either the restrictions imposed by the authorities (especially in the less-liberal EU member states) or the fears of future revenge and further attacks in the affected regions.<sup>16</sup> Neither of the explanations validate the channel of political acquisition.

Therefore, I find that patriotism and the civic engagement of civilians in targeted regions build links from terrorist incidents to political confidence and approval. Nonethe-

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<sup>15</sup>One potential concern is that if implemented, the franchise would be extended at the national level rather than at the regional level. Thus, I replicate this analysis at the country level and obtain a marginally significant negative effect (-0.048) on the freedom of expressing political views, and a non-significant effect (0.026) on the freedom of the media.

<sup>16</sup>In an additional analysis, I replicate the investigation of political acquisition using the sub-sample of Western European member states, which are traditionally regarded as more liberal or more maturely democratic. The obtained results are similar. Thus, the fears of future revenge or attacks are more likely to explain the negative impacts of terrorism on the two indicators of perceived freedom.

less, I do not find evidence that any increase in political trust and support after terrorism was due to perceived economic resource allocation or political acquisition by the government.

### 4.3 Heterogeneity Investigation

In this subsection, I examine heterogeneous effects in terms of various individual characteristics—such as gender, employment status, educational attainment, and age cohort—and terrorism characteristics, including logistics and consequences, as well as geography/institution within the EU. The aim is to discover which specific subgroups of people and countries, and which classes of attacks drove this post-terrorism rally effect.

– Table 4 about here –

For ease of comparison, in panel a of Table 4 I reproduce the baseline estimates from column (3) of Table 2. First, I explore whether there are differentials between men and women. Perrin and Smolek (2009) document a stronger rally phenomenon among men than among women; however, my estimates in panel b do not accord with their findings. Consistently, the increases in both political confidence and approval after terrorist incidents were significant for both genders and of a slightly larger magnitude among women than among men.

Second, terrorism adversely affects business conditions and leads to job losses (Brodeur, 2018). People laid off after a terrorist incident may blame the government for a lack of capacity to deal with the crisis, and hence their own unemployment. Nonetheless, they may be also additionally angry with terrorists because of their own job loss, and thus support the government’s counterterrorism measures. The results in panel c seem to support the second hypothesis. Both the employed and the non-employed indicate significant rally syndrome after terrorism. Among the non-employed, the improvements in political confidence and approval were more sizeable than those of the employed.

Third, in panel d of Table 4, I examine the differences between college degree holders and individuals without a degree. Surprisingly, the effects of terrorism on political confidence and approval for college degree holders are significant negative, and very large. Apparently, the rally phenomenon after terrorism was driven by lower educated people without a college degree while such political trust and support among higher educated individuals declined substantially.

Further, I separate the sample into two age groups: one group of 50 years of age

and below, and the other older than 50. For both outcome variables, the coefficients are significant for the two age groups. However, the terrorism-induced increases were more sizeable among the older cohort than the younger one.

In addition to individual characteristics, I also examine heterogeneity regarding terrorism logistics and consequences. In panel f, I distinguish attacks with domestic logistics from those with international or unknown logistics. The coefficients are significant for both types of attacks, but roughly twice as large for non-domestic terrorism as for domestic terrorism. Hence, residents in affected regions seemed to exhibit a considerably stronger rally syndrome after attacks that were launched by non-domestic perpetrators. Such a difference is consistent with the patriotism mechanism: people increased their support for the government and approval of their country leader's performance particularly when attacked by foreign terrorist groups.

Next, in panel g I explore the potential divergence between major terrorist incidents with salient consequences, and minor terrorist incidents. Here, major terrorism refers to attacks resulting in more than ten deaths or property damage of greater than one million US dollars. Major attacks are relatively rare: in my sample of the EU in 2008–2016, only approximately 1.5 percent of incidents were major. The estimates show that major terrorism significantly reduced confidence in the national government by 7.7 percentage points and non-significantly raised approval of the country leader's performance by 2.2 percentage points. The political effects of minor terrorism are exactly the same as the baseline in panel a. Thus, the increases in political confidence and approval were driven entirely by more-frequent minor attacks rather than the rare major incidents. This finding is important, in the sense that such attacks without major casualty numbers or economic losses occurred frequently around the world and had notable results in political confidence and approval.

Finally, I investigate differentials between EU member states in Western Europe, and those in Central and Eastern Europe<sup>17</sup>, as the latter are traditionally perceived as less liberal or less maturely democratic. The estimates in panel h show that confidence in the national government improved more notably following terrorist attacks in Central and Eastern Europe, while approval of country leader's performance in Western Europe increased almost twice as much compared with Central and Eastern Europe. These results suggest that the rally effects seemed to be exhibited more notably in the form of political

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<sup>17</sup>According to the definition from the OECD, Central and Eastern European member states of the EU include Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, Slovenia, and the three Baltic States: Estonia, Latvia and Lithuania.

institutions—the national government in the current context—than the individual leadership in Central and Eastern Europe. Nevertheless, the rally phenomenon was present significantly regarding both political institutions and individual leadership in Western Europe.

In this subsection, I study heterogeneous rally effects in different subgroups and classes of terrorism. I find that after attacks, political confidence and approval increased more substantially among women, the non-employed, individuals without a college degree, and older people. However, political confidence and approval reduced significantly, both economically and statistically, among college degree holders. Moreover, attacks launched by domestic perpetrators had only half the extent of political effects as attacks launched by non-domestic terrorists. This may reflect a nationalistically attached sentiment—a mechanism of the rally syndrome. Furthermore, the rally effect was driven by frequent minor terrorist events rather than rare major terrorist attacks with substantial casualties and damage, which renders my results more general and compelling. The rally phenomenon was also exhibited significantly in terms of both political institutions and individual leadership in Western Europe while in Central and Eastern Europe it presented more strongly in the form of political institutions.

## 4.4 Sensitivity Analyses

To check the robustness of my estimates, I conduct a range of sensitivity analyses. I extend the post-terrorism window period to explore the persistence of the rally effect. I also include country $\times$ year fixed effects, region-specific time trends, or interactions of the post-terrorism phase and individual characteristics. Furthermore, I additionally take a radical approach by removing all observations of a region after it was confronted with the first terrorism incident in my sample period 2008–2016. In this way, I attempt to alleviate the potential confounding influence of previous attacks on the current degree of political confidence and approval. Lastly, I perform falsification tests by exploiting different timings before real attacks as counterfactual occurrences of terrorism to show that my identified effects are not attributed to potential confounding events taking place close in time to the terrorist incidents.

### 4.4.1 Different Window Periods Post-Terrorism

In my baseline analysis, I use the month of terrorist attack and the subsequent quarter as the post-terrorist incident phase. I replicate the corresponding estimates in column



(1) of Table 5 for convenience of comparison. I then change the post-terrorism period to examine the robustness of my estimates. I extend the post-terrorism phase to six months and one year after the terrorist event in columns (2) and (3), respectively. As shown in the table, the effects of terrorism on confidence in the national government and approval of the country leader's performance were still significant for longer post-periods but indeed declined both statistically and economically over time.

– Table 5 about here –

#### **4.4.2 Inclusion of Country×Year Fixed Effects**

In the baseline model, I include the first order sub-national region fixed effects and calendar year×month fixed effects to account for geographic divergence and time-varying unobservables, respectively, that may affect individual political confidence and approval. Again for ease of comparison, I reproduce the baseline estimates in column (1) of Table 6. In column (2), I further add country×year fixed effects to the model to capture country-specific differences over time such as counterterrorism measures and spending.

After removing the influence of the potential country-specific and time-varying unobservables, the coefficient of attacks decreases for confidence in the government but increases for approval of the leader's performance. Both estimates still remain significant at the 1 percent level. Thus, these variable unobserved factors cannot be responsible for the rally effect following terrorism.

#### **4.4.3 Inclusion of Region-Specific Trends**

In column (3) of Table 6, I include region-specific linear time trends to identify the developments of political confidence and approval divergent in the first order sub-national regions over time. The results are of a larger magnitude than the baseline.

In column (4) I include both country×year fixed effects and region-specific time trends. The effects of attacks on both outcomes decrease, but remain statistically significant.

#### **4.4.4 Inclusion of Interactions of Terrorism and Individual Characteristics**

Terrorism may have an impact on individual political confidence and approval through its influence on personal characteristics, such as labor market status, marital status, educational attainment, etc. In column (5), I include interaction terms of post-terrorism

and the individual covariates. Interestingly, for both outcome variables, the estimated effects of terrorist attacks become larger than the baseline estimates.

#### 4.4.5 Only First Terrorism in a Region

Previous experiences of terrorism may have a lagged impact on political confidence and approval, and such lagged effects could be in either direction. Even though in Figure 4 I have already shown that these effects lose significance in the third quarter after a terrorist attack, I still employ a radical method to alleviate the potential confounding lagged impact of previous terrorism. For every sub-national region in the EU, I preserve the observations up to three months after the first attack in that region in my sample period 2008–2016. That is, I study the effects of only the first terrorist incident in the region from 2008 to 2016.

The last column of Table 6 displays the estimates: the coefficient for confidence in the national government is almost twice as large as the baseline, while the coefficient for approval of the country leader’s performance is about 3.5 times greater than the baseline. Such differentials imply that multiple attacks in the same region over time may impair the rally effect. However, there are two caveats for such an implication: first, it is impossible to eliminate the lagged influence of previous terrorist incidents that occurred before the beginning of my sample period; second, the results in column (6) are driven by a small number of observations especially associated with terrorism and by limited types of attacks. Hence this somewhat radical approach is not preferred.

#### 4.4.6 Falsification Tests in Terrorist Timings

Figure 4 displays that political confidence and approval before terrorism do not significantly differ from those without any terrorist incidents. Here, I perform falsification tests with different timings pre-(real) terrorism as the placebo terrorist incidents. If I do not find any significant effects of “fake” attacks, it suggests that my baseline results cannot be attributed to other potential events occurring at a time close to the real terrorist incident.

In Table 7, columns (1) to (3) show estimates of the placebo tests with one quarter, two quarters, and three quarters before the real terrorist incident as the fake terrorist incident timing, respectively. The estimation sample for such tests excludes observations of post-(real) terrorism periods.<sup>18</sup> None of the coefficients of attacks are significant in

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<sup>18</sup>One could include the post-(real) terrorism observations for such falsification tests if one is inter-

the table. Thus the effects of terrorism on political confidence and approval cannot be explained by other events that might take place close (in timing) to terrorist incidents.

All in all, the effects on the political confidence and approval materialized in the short term up to one year after a terrorist incident. They are robust to accounting for the impact of country-specific and time varying unobservables, the divergent time trends of different regions, and the potential responses of individual characteristics to terrorism. They were also not the result of events happening close in time to a terrorist incident.

## 5 Conclusions

After crises, such as natural disasters, epidemics, and wars, we often observe an increase in political support for the incumbent government. This political solidarity may be due to patriotism being triggered, when people witness that their country has suffered. However, this increase in approval may be also due to capture by the government. When a crisis occurs, the incumbent will try to mitigate the negative consequences in order to pacify the local residents and maintain their political support. In addition to immediate crisis response and management measures, the government may take efforts to obtain political support, either through economic strategies by reallocating resources to the impacted regions, or with political tactics by extending the franchise.

The current study examines whether this “rally ’round the flag” effect is exhibited in the context of terrorism, and attempts to explore explanations for the potential phenomenon. Comparing variations in individual confidence in political institutions and political approval across sub-national EU regions after terrorist attacks and to those without terrorism, I find that confidence and approval increased by more than 10 percentage points when terrorist attacks had taken place. Investigating different mechanisms, I further find that the increase in political trust and support was mainly driven by patriotism and the civic engagement of citizens. Nonetheless, I do not find evidence supporting the alternative channels of perceived economic capture or political acquisition by the government. In an advanced democracy such as the EU, there is indeed little room in franchise extension for the incumbent to manipulate.

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ested in how the impact of terror, if there was any, would materialize in the post-terrorism phase; i.e., immediately or gradually. This is addressed in Table 5 and again in Figure 4.

## Tables and Graphs

Table 1: Means of terrorism characteristics by attack type, weapon type, and logistics

	Success (%)	Injury	Death	No. obs (%)
<i>Attack type</i>				
Assassination	23.08	1.38	0.92	13 (2.41)
Armed assault	90.67	7.75	1.75	75 (13.89)
Bombing/Explosion	45.91	1.54	0.19	257 (47.59)
Faculty/Infrastructure	94.58	0.18	0.01	166 (30.74)
Unarmed assault	80.95	2.90	0.14	21 (3.89)
Other & unknown	100.00	1.00	0.88	8 (1.48)
<i>Weapon type</i>				
Firearms	86.67	11.56	2.89	45 (8.33)
Explosives/Bombs/Dynamite	45.45	1.50	0.19	264 (48.89)
Incendiary	93.14	0.32	0.01	175 (32.41)
Melee	93.02	2.02	0.33	43 (7.96)
Other & unknown	69.23	2.83	0.54	13 (2.41)
<i>Logistics</i>				
International logistics	77.14	10.44	1.54	35 (6.48)
Domestic logistics	80.52	0.77	0.04	77 (14.26)
Unknown	65.89	1.63	0.34	428 (79.26)
Total	68.70	2.04	0.38	540 (100)

Table 2: Effects of terrorism on confidence in government and approval of country leader's performance

	(1)	(2)	(3)	(4)	(5)
Confidence in national government					
a.					
Post-attack	0.081	(0.032)**	0.081	(0.031)***	0.110 (0.013)***
Success×post					0.065 (0.026)**
Failed×post					0.045 (0.030)
Approval of country leader's performance					
b.					
Post-attack	0.057	(0.031)*	0.057	(0.030)*	0.134 (0.021)***
Success×post					0.084 (0.037)**
Failed×post					0.051 (0.030)*
Ind. covariates		Y	Y	Y	Y
Terror. covariates			Y	Y	Y
Region FE	Y	Y	Y	Y	Y
Year×month FE	Y	Y	Y	Y	Y

Note: Based on 61,718 observations. Individual covariates contain a male dummy, the quadratic of age, dummies of completed educational levels, dummies of marital status, number of children living in the household, a dummy of being born in the country surveyed, and dummies of unemployment and out of the labor force. Terrorism covariates include attack-type fixed effects, a dummy of logistically international attack, a dummy with the value of 1 if the attack is unknown to be logistically international or not, and another dummy of the major attack. A constant is also included in every model, but not shown for parsimony. Standard errors clustered at the regional level in parentheses; \*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ .

Table 3: Mechanisms of patriotism, civic engagement, economic capture, and political acquisition

	(1)	(2)	(3)	(4)
a. Patriotism				
	Move abroad		Move within year	
Post-attack	-0.087	(0.012)***	-0.074	(0.019)***
No. obs.	61,718		7,333	
b. Civic engagement				
	Donation		Volunteer	
	Help strangers		Voice opinion	
Post-attack	0.031	(0.016)*	0.039	(0.034)
			0.064	(0.030)**
No. obs.			59,078	
				43,650
c. Economic capture index of area basics				
	Index		Conf. police	
	Feel. safe			
Post-attack	0.017	(0.012)	0.022	(0.015)
No. obs.			59,078	
d. Political acquisition				
	Poli. view free.		Media free.	
Post-attack	-0.189	(0.011)***	-0.086	(0.016)***
No. obs.	36,451		57,565	

Note: See note under Table 2.

Table 4: Effects of terrorism on political confidence and approval: Heterogeneity investigation

	(1) Confidence govt.		(2) Approval leader		No. obs
a. Baseline	0.110	(0.013)***	0.134	(0.021)***	61,718
b. Gender					
Men	0.108	(0.024)***	0.140	(0.025)***	26,801
Women	0.125	(0.022)***	0.155	(0.022)***	34,917
c. Labor market status					
Employed	0.106	(0.023)***	0.107	(0.017)***	33,635
Non-employed	0.125	(0.025)***	0.211	(0.036)***	28,083
d. Education attainment					
College degree	-0.247	(0.035)***	-0.300	(0.027)***	15,930
No college degree	0.135	(0.014)***	0.165	(0.022)***	45,788
e. Age cohort					
50 & younger	0.082	(0.022)***	0.123	(0.018)***	32,636
Older than 50	0.270	(0.052)***	0.187	(0.054)***	29,082
f. Logistics					
Domestic	0.111	(0.013)***	0.135	(0.021)***	60,742
Non-domestic	0.265	(0.039)***	0.246	(0.030)***	61,563
g. Consequence					
Major	-0.077	(0.016)***	0.022	(0.015)	60,665
Minor	0.110	(0.013)***	0.134	(0.021)***	61,640
h. Geography/institution					
Central & Eastern Europe	0.184	(0.022)***	0.072	(0.039)*	19,782
Western Europe	0.114	(0.012)***	0.138	(0.022)***	41,936

Note: Only the coefficients of *Post-attack* are presented; see also note under Table 2.

Table 5: Effects of terrorism on political confidence and approval: Sensitivity analyses with different window periods post-terror

	(1) Baseline 3 months		(2) 6 months		(3) 1 year	
a.	Confidence in national government					
Post-attack	0.110	(0.013)***	0.081	(0.033)**	0.063	(0.037)*
b.	Approval of country leader's performance					
Post-attack	0.134	(0.021)***	0.134	(0.018)***	0.086	(0.036)**

Note: Based on 61,718 observations. See also note under Table 2.

Table 6: Effects of terrorism on political confidence and approval: Sensitivity analyses with country×year fixed effects, region-specific trends, and interactions of terrorism and individual characteristics included

	(1) Baseline	(2) Country× year FE	(3) Region trends	(4) (2)+(3)	(5) Interactions with ind cov	(6) Only first terror attack
a.	Confidence in national government					
Post-attack	0.110*** (0.013)	0.102*** (0.021)	0.162*** (0.017)	0.100*** (0.020)	0.137*** (0.033)	0.212*** (0.049)
b.	Approval of country leader's performance					
Post-attack	0.134*** (0.021)	0.165*** (0.022)	0.166*** (0.026)	0.095*** (0.027)	0.146** (0.061)	0.488*** (0.031)
No. obs.						61,718 23,692

Note: See also note under Table 2.

Table 7: Effects on political confidence and approval: Falsification test with different timings for fake terror

	(1) 3 months before	(2) 6 months before	(3) 9 months before
a.	Confidence in national government		
Post-attack	0.019 (0.054)	0.006 (0.040)	-0.000 (0.039)
b.	Approval of country leader's performance		
Post-attack	-0.021 (0.049)	-0.021 (0.035)	-0.024 (0.035)

Note: Based on 60,587 observations. See note under Table 2.

Figure 1: Terrorist incidents in the European Union; 2008 – 2016

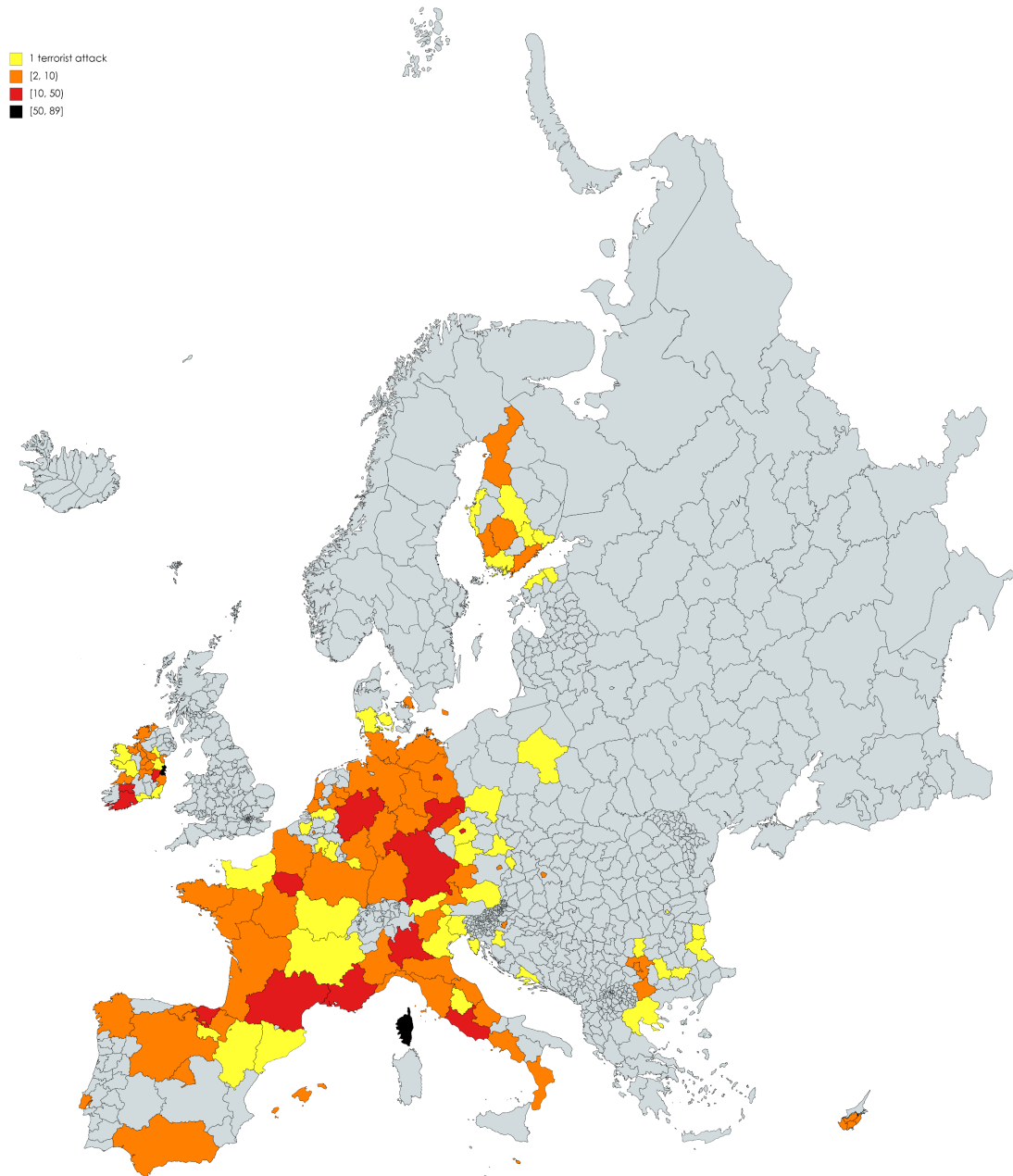




Figure 2: Political confidence and approval, by terrorism occurrence

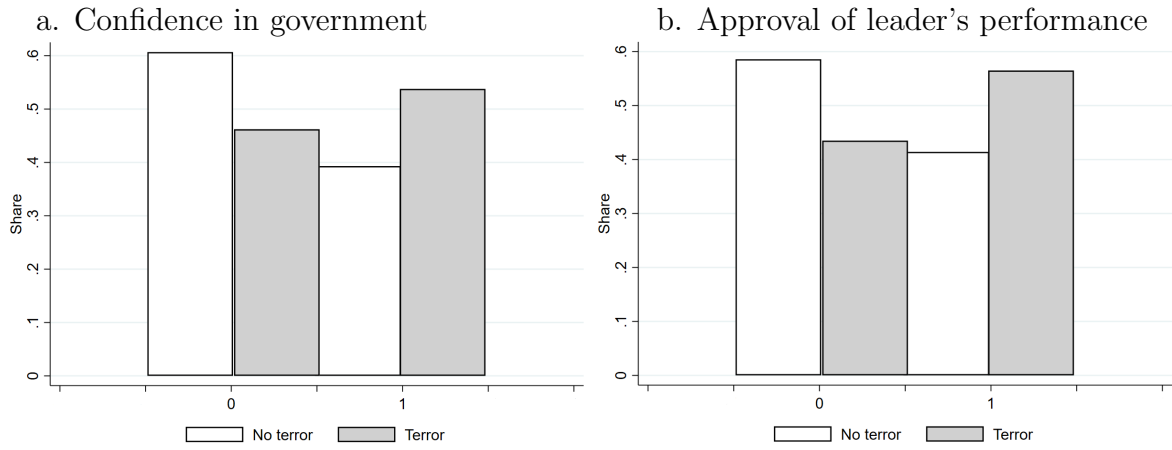


Figure 3: Political confidence and approval, by terrorism results

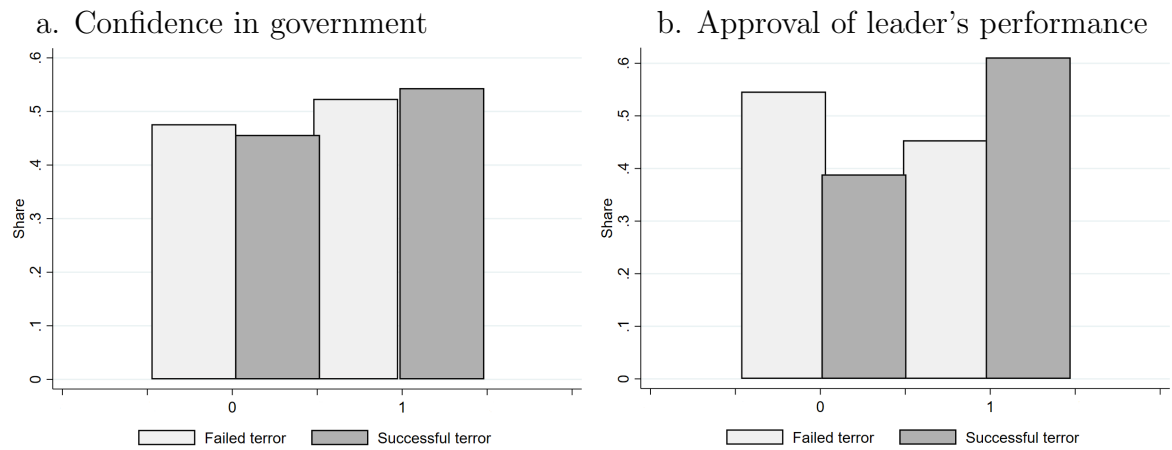
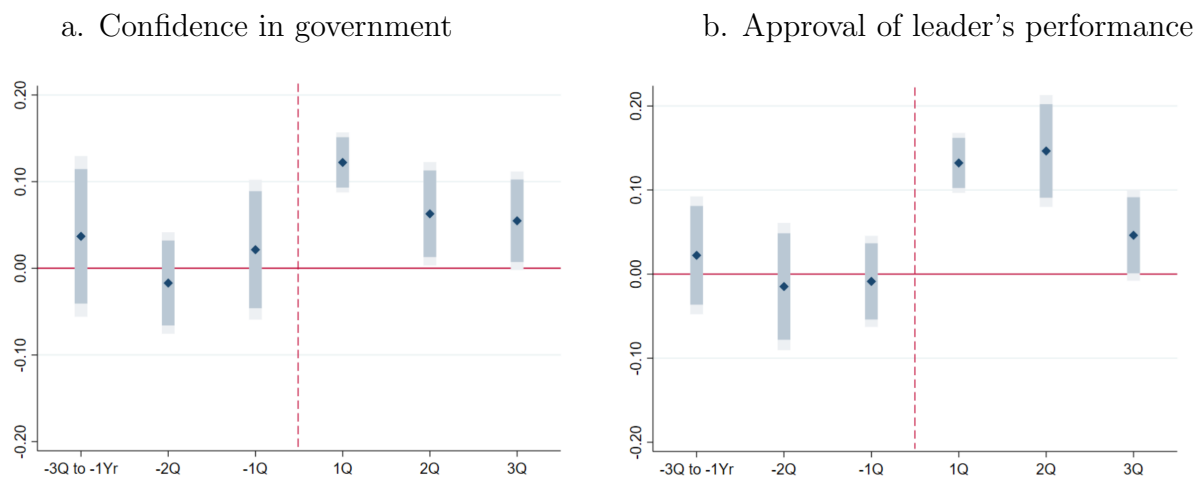


Figure 4: Confidence in government and approval of country leader's performance across time around terrorism occurrence



Note: Scale in the horizontal axis is in quarters. The segments denote 90% (dark) and 95% (light) confidence intervals, respectively, of estimated coefficients of interactions of terror and time periods around the occurrence of terrorism (the vertical dashed line).

Figure 5: Confidence in government and approval of country leader's performance across time; separating successful terrorism from failed attacks



Note: After terror occurrence (the vertical dashed line), the red circle estimates with thick segments refer to successful terrorism and the green square estimates with thin segments denote failed terrorism; see also note under Figure 4.

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# For Online Publication

## Appendix A: Definition of Variables and Descriptives

Variable	Definition
Confidence in national government	Dummy variable if having confidence in the national government
Approval country leader's performance	Dummy variable if approving of the country leader's performance
Post-attack	Dummy variable of the period after (successful or failed) terrorist attacks in the targeted region
Successful attack	Dummy variable of the period after successful attacks in the victim region
Failed attack	Dummy variable of the period after failed attacks in the targeted region
Male	Dummy variable if male
Age	Age when surveyed
Primary school	Dummy variable if highest completed education is primary school
Secondary school	Dummy variable if highest completed education is secondary school
College & above	Dummy variable if highest completed education is college or above
Never married	Dummy variable if never married
Married	Dummy variable if married
Domestically partnered	Dummy variable if domestically partnered
Separated	Dummy variable if separated
Divorced	Dummy variable if divorced
Widowed	Dummy variable if widowed
Number of children	Number of children living in the household
Native born	Dummy variable if born in the country of residence
Foreign born	Dummy variable if not born in the country of residence
Employed	Dummy variable if employed
Unemployed	Dummy variable if unemployed
Not in labor force	Dummy variable if not being in the labor force
Attack type fixed effects	Dummy variables of different types of terror attacks
Logistically domestic	Dummy variable if the attack was logistically domestic
Logistically international	Dummy variable if the attack was logistically international
Logistically unknown	Dummy variable if it is unknown whether an attack was logistically international or not
Major attack	Dummy variable for an attack with property damage higher than one million US dollars or with more than 10 casualties.

Variable	No terror Mean	Terror Mean
Age	48.833	49.146
No. children	0.408	0.410
Percentage		
Confidence in government	0.393	0.538
Approval performance	0.414	0.565
Male	0.439	0.471
Female	0.561	0.529
Primary school	0.128	0.050
Secondary school	0.614	0.687
College & above	0.258	0.263
Never married	0.235	0.240
Married	0.528	0.509
Domestically partnered	0.060	0.076
Separated	0.019	0.025
Divorced	0.068	0.070
Widowed	0.090	0.080
Native born	0.920	0.914
Foreign born	0.080	0.086
Employed	0.552	0.576
Unemployed	0.049	0.038
Not in the labor force	0.399	0.386
No. of obs.	76,014	1,508

## Appendix B: Plausible Randomness of Occurrence and Results of Terrorist Attacks

Table 8: Effects of potential confounders in different pre-terrorism phases on the occurrence and success of terrorist attacks: Plausible randomness of the occurrence and result of terrorism

	Occurrence of terror			Success of terror		
	(1)	(2)	(3)	(4)	(5)	(6)
	3 months before	6 months before	1 year before	3 months before	6 months before	1 year before
Feeling safe walking night	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.001)
Confidence in police	-0.002 (0.001)	-0.002 (0.001)	-0.000 (0.002)	0.002 (0.001)	0.001 (0.001)	0.001 (0.000)
Confidence in military	-0.000 (0.002)	-0.002 (0.002)	0.001 (0.002)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.001)
Money property stolen	-0.001 (0.002)	-0.002 (0.002)	-0.001 (0.002)	0.000 (0.000)	0.000 (0.000)	-0.001 (0.001)
Government corruption	-0.000 (0.001)	0.000 (0.001)	0.002 (0.002)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Business corruption	-0.001 (0.001)	-0.002 (0.001)	-0.003* (0.001)	0.001 (0.000)	0.001 (0.000)	-0.000 (0.001)
Current life satisfaction	0.000 (0.001)	0.000 (0.001)	0.001 (0.001)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
Future life satisfaction	0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.000)	-0.000 (0.000)	-0.000* (0.000)
Freedom in life	0.001 (0.002)	0.002 (0.002)	0.002 (0.002)	0.000 (0.000)	0.000 (0.000)	-0.001 (0.001)
Media freedom	-0.001 (0.002)	-0.001 (0.002)	0.001 (0.002)	-0.003 (0.002)	-0.002 (0.002)	-0.000 (0.001)
Area satisfaction	-0.002 (0.002)	-0.002 (0.002)	0.000 (0.002)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.001)
Area good for racial minority	0.001 (0.002)	0.002 (0.002)	0.003 (0.002)	0.000 (0.001)	0.000 (0.000)	0.001 (0.001)
Area good for sexual minority	-0.001 (0.001)	-0.001 (0.001)	-0.002 (0.001)	-0.000 (0.000)	-0.000 (0.000)	0.001 (0.001)
Area good for immigrants	-0.002 (0.002)	-0.003* (0.002)	-0.002 (0.002)	-0.001 (0.001)	-0.001 (0.001)	0.001* (0.001)
Area good for business	0.001 (0.001)	0.001 (0.001)	0.001 (0.002)	-0.000 (0.000)	-0.000 (0.000)	-0.001 (0.001)
Confidence in financial institutions	0.005** (0.002)	0.005** (0.002)	0.003* (0.002)	-0.001 (0.001)	-0.001 (0.001)	-0.003* (0.001)
Country good economy	-0.001 (0.001)	-0.001 (0.001)	-0.003* (0.001)	0.001 (0.000)	0.001 (0.000)	-0.000 (0.000)
Country economy better	-0.001 (0.001)	-0.001 (0.002)	0.000 (0.002)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Area economy better	0.001 (0.001)	0.001 (0.002)	0.001 (0.002)	-0.000 (0.000)	-0.000 (0.000)	0.001 (0.000)
Area good job time	0.000 (0.002)	-0.000 (0.002)	0.000 (0.002)	0.000 (0.000)	0.000 (0.000)	0.002 (0.001)
Move abroad	0.002* (0.001)	0.001 (0.001)	0.001 (0.002)	0.002 (0.002)	0.002 (0.001)	0.001 (0.001)
Approval performance	-0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001** (0.001)
Approval leader way	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Confidence in government	0.002 (0.002)	0.003 (0.002)	0.000 (0.002)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Confidence in election honesty	0.002** (0.001)	0.002* (0.001)	0.004** (0.002)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Confidence in judicial system	0.000 (0.001)	-0.001 (0.001)	-0.002 (0.002)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)
No. obs.		35,807		1,639	1,868	2,412

Note: See note under Table 2. The first three columns do not include terrorist covariates in that there are no terror characteristics if no attack occurred; the last three include them.



# Appendix C: More Details on the Data

## C1. Survey Questions

- Confidence in national government
  - “Do you have confidence in the national government, or not?” The answers are “(1) yes, (2) no, (3) do not know, and (4) refuse to answer”. *Confidence in national government* is a dummy variable with value 1 if the answer is (1) and value 0 otherwise.
- Approval of country leader’s performance
  - “Do you approve or disapprove of the job performance of the leadership of this country?” The answers are categorized into “(1) approve, (2) disapprove, (3) do not know, and (4) refuse to answer”. *Approval of country leader’s performance* is a dummy variable with value 1 if the answer is (1) and a value of 0 otherwise
- Economic capture index of area basics

This index is the community basics index in the Gallop data based on the following five component questions. In the city or area where you live, are you satisfied or dissatisfied with

1. the roads and highways?
2. the public transportation systems?
3. the availability of good affordable housing?
4. the educational system or the schools?
5. the availability of quality healthcare?

The answers are categorized into “(1) satisfied, (2) dissatisfied, (3) do not know, and (4) refuse to answer”. Each of the above questions is a dummy with a value of 1 if the answer is (1) and a value of 0 otherwise. *Economic capture index of area basics* is the mean of answers to the above five questions, calculated at the individual level.

## C2. Definition of Successful Attacks

The definition of successful attacks depends on the type of the attack. The vital criterion is whether or not the attack type took place. If there are multiple types involved, the attack is successful if any of the types are successful, with the exception of assassinations which are only successful if the intended target is killed.

- Assassination

- An assassination is considered successful if the target of the assassination is killed. Even if an attack kills a large number of people but not the target, it is not considered as successful.
- Armed assault
  - An armed assault is considered successful if the assault takes place and a target is hit (including people and/or property). If the perpetrators attack and do not hit the target, it is considered unsuccessful. An armed assault is also not successful if the perpetrators are apprehended on their way to commit the assault. To make this determination, however, there must be information to indicate that an actual assault was imminent.
- Bombing/Explosion
  - A bombing is considered successful if the bomb or explosive device detonates. Otherwise it is considered unsuccessful. The success or failure of the bombing is not based on whether it hits the intended target.
- Hijacking
  - A hijacking is considered successful if the hijackers assume control of the vehicle at any point and it is unsuccessful if the hijackers fail to do so. The success or failure of the hijacking is not based on whether the vehicle reached the intended destination of the hijackers.
- Hostage taking/Barricade incident
  - A barricade incident is considered successful if the hostage takers assume control of the individuals at any point and it is unsuccessful if the hostage takers fail to do so.
- Hostage taking (Kidnapping)
  - A kidnapping is considered successful if the kidnappers assume control of the individual(s) at any point and it is unsuccessful if the kidnappers fail to do so.
- Facility/Infrastructure attack
  - A facility attack is considered successful if the facility is damaged. Otherwise it is not successful.
- Unarmed assault
  - An unarmed assault is considered successful if a victim has been injured. Otherwise it is not successful. An unarmed assault is also considered unsuccessful if the perpetrators are apprehended on their way to commit the assault. To make this determination, however, there must be information to indicate that an assault was imminent.