# Does the intensity of protests induce terrorism?

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**Abstract**

This article examines the impact of protests and demonstrations on the terrorist attacks within a country. While some studies in the relevant literature have explored the relationship between these variables, this research is unique in its empirical approach using panel data, with a specific focus on the intensity of protests and their effect on terror attacks. This article's proposed mechanism underscores the significance of political stability as a deterrent against terrorism—a stability that can be undermined by ongoing protests. Using a sample of 26 countries for the period 2002–2018, the empirical findings strongly support the hypothesis that persistent protests are connected to an increased likelihood of terror attacks—a relationship robust even when control variables are considered. The estimation results also reveal that an augmented military strength has a negative impact on the occurrence of terror incidents. Furthermore, the durability of a political regime is linked to a decrease in the number of terror incidents. Additionally, the results indicate that the level of democracy contributes to the occurrence of terror incidents.

It seems that people are taking to the streets to protest against their governments more frequently in recent decades. The average number of protests in the period 1990–2010 was 937, while the average number of protests in the period 2011–2019 was 3,481 (Clark and Regan, 2016). The number of protests increased dramatically following the first few months of the Covid-19 health crisis, sparked by issues such as corruption, political transition, police brutality and discrimination, democratic backsliding, and rising authoritarianism. Covid restrictions, increases in fuel prices, rising general inflation, women's rights, and farm laws have been the key drivers of protests occurring around the globe since 2020.[1]

Such protests and demonstrations against government can be seen as forms of democratic participation in the policy-making process and the setting of the public agenda. The recent rise in protests around the globe reflects the increase in the number of problems encountered in economies, political restrictions on civil and political rights, and problems that span entire political regimes at the global scale. Protestors have used the streets to defend their civil and political rights, which may often be the only viable option in countries suffering from a democratic deficit and corrupt bureaucrats and politicians.

As the number of protests and demonstrations continues to increase worldwide since 2015, an important question arises—does this trend potentially foster terrorism on a global scale? A recent case that illustrates this connection is the Arab Spring, which yields insightful findings regarding the interplay between protests and terrorist incidents. Korotayev *et al.* (2022) report a significant surge in the number of terrorist attacks and guerilla warfare following the Arab Spring. For instance, organizations like ISIS, which emerged in the aftermath of the Arab Spring, capitalized on the unstable political landscape to further their objectives. This underscores the potential linkage between prolonged protests, political instability, and the proliferation of terrorist activities.

There is some empirical evidence that supports the argument that such political instabilities can foster an

[1] Chenoweth (2023); Dave *et al.* (2020); Iacoella *et al.* (2021).

environment conducive to terror attacks across countries, but the number of empirical studies on this topic is very limited. To the author's knowledge, Schumacher and Schraeder (2021) and Issaev *et al.* (2021) are the only two studies directly investigating the link between protests and terrorism. This article further contributes, by considering the relationship between anti-government protests, demonstrations and terrorism, with a particular emphasis on the evolving intensity of the protests over time. Specifically, the article's study distinguishes itself from closely related studies by using a dataset covering a greater number of years and accounting for the lagged impacts of protests on terrorist attacks.

**The nature of protests and their evolution over time can be crucial determinants in shaping the potential for terror incidents. Where responsible state institutions fail to take actions in response to civil demands, the likelihood of exposure to terrorism increases regardless of the regime type and state repression capacity. This likelihood increases in conjunction with a weakened military capacity and the instability of the political regime, particularly in comparison to autocracies with robust military capacities and stable institutions.**

The next section briefly reviews the existing literature and locates this article within it. This is followed by a discussion of the links between protests and terrorism and provides a hypothesis—which is then considered with a cross country panel data analysis. The concluding section summarizes the main findings and contributions of this article.

## The determinants and effects of protests

There is a range of literature that has considered the determinants and effects of protest. Studies on collective action have tried to determine the factors that spark social gatherings, protests, and demonstrations[2].Other studies have assessed the outcomes of protests, arguing that: they offer remedies for defects in democracy;[3] demonstrate the strength of public opinion against government failures, marginal policies, or extreme partisan politics;[4] provide an opportunity for marginalized groups to raise group-specific issues and express their preferences against government policies;[5] and reflect the group-wide emotions of unfair treatment by the incumbent government.[6] Other work has shown that protests and demonstrations occur more frequently in democracies, due to fewer restrictions on social gatherings and participatory politics,[7] while in autocracies protests are rare and more likely to be met with repression.[8]

Studies on the impact of protests refer to their effects on political regime switches,[9] power shifts,[10] policy-making,[11] election outcomes,[12] quality of candidates,[13] changes in preferences and attitudes,[14] and trust in political leaders.[15] Other studies have examined the impact of anti-government actions, whether violent or non-violent, on the economy. Using data on riots that occurred between 1964 and 1971, Collins and Margo (2007) demonstrated that

[2] These include the free-rider problem (Olson, 1965), the efficacy problem (Schofield and Pavelchak,1989; Stürmer *et al.* 2003), activist identification (Simon *et al.* 1998; Kelly and Breinlinger,1995), and value expression (Hornsey *et al.* 2003). Efficacy refers to people's belief in changing condition through protests or group-wise actions. People also identify their values with the majority's values and protest on behalf of the group.
[3] Putnam (1997); Gause (2022).
[4] Fisher *et al.* (2019); Chenoweth *et al.* (2022).
[5] Battaglini (2017).
[6] Passarelli and Tabellini (2017).
[7] Johnston and Almeida (2006); Tilly and Tarrow (2015).
[8] Cook (1996).
[9] Collier (1973); O`Donnell (1973).
[10] Frye and Borisova (2019).
[11] Madestam *et al.* (2013); Matsueda *et al.* (2020); Huet-Vaughn (2013).
[12] Madestam *et al.* (2013); Gillion and Soule (2018); El-Mallakh (2020); Castro and Retamal (2022).
[13] Gillion and Soule (2018),
[14] Gillion (2020); Mazumder (2018).
[15] Sangnier and Zylberberg (2017).

riots had persistent negative impacts on income and employment of black individuals. Acemoglu *et al.* (2018), using data from 177 firms in the period 2005–2013, showed that as protests increase, the stock market value of firms connected to political power decreases relative to non-connected firms.

As the number of protests and demonstrations continues to increase worldwide since 2015, an important question arises—does this trend potentially foster terrorism on a global scale?[16] The Arab Spring illustrates the manner in which prolonged protests characterized by high levels of participation create an environment conducive to political and economic instabilities that may, in turn, contribute to an increase in terror attacks. Korotayev *et al.* (2022) report a significant surge in the number of terrorist attacks and guerilla warfare following Arab Spring, with organizations like ISIS, which emerged in the aftermath of the Arab Spring, capitalizing on the unstable political landscape to further their objectives.

## Persistent protests and terrorism

A reasonable hypothesis to consider in this empirical study is that persistent protests and terrorist attacks are complementary across countries. Certainly, protests in democracies express social dissatisfaction arising from minor policy issues that significantly impact the economic conditions and/or the civil or political rights of specific groups, non-groups, mainstream groups; or reflect the public concerns regarding general economic and political conditions. Public protests represent a direct form of political action by civil forces, where government or state institutions do not act as intermediaries—unlike in voting, political party participation, or lobbying.[17] In particular, non-violent mass mobilization protests against governments have played a crucial role in eliminating restrictions on civil and political rights—such as the abolition of slavery and labor exploitation, the extension of the franchise, and the granting of rights to women and minorities.[18] In liberal democracies, which are founded on principles of liberty and popular sovereignty, protests contribute to upholding the foundational tenets of liberal democracy while promoting social justice.

Protests, often arising in the wake of economic crises, challenges to the social contract, or the allocation of political power, have frequently resulted in democratic transitions in autocratic regimes. Celestino and Gleditsch (2013) using data for the period 1900–2004 demonstrated that non-violent protests are more likely to facilitate democratic transitions compared to violent and direct actions. Noteworthy examples include the collapse of the Guatelmalan regime in the 1950s, the Marcos regime in the 1980s, and the Egyptian and Tunisian regimes in the 2010s—all of which followed non-violent protests. Additionally, instances of electoral fraud followed by mass protests, as seen in Ukraine in 2004, Kyrgyzstan in 2005, Georgia in 2003, and Serbia in 2000, led to annulments of election results.[19] Nevertheless, non-violent protests can potentially escalate into violent protests or even give rise to terrorist attacks. Instances exist where sustained non-violent and peaceful protests have transformed into violent forms. Protestors turn to violence after becoming frustrated with the lack of responsiveness from government authorities toward their demands, or due to provocations by government entities and police forces. This phenomenon was evident, for example, during the Arab Spring and has occurred repeatedly in Ethiopia.[20]

Terrorism differs from protests, especially non-violent ones, primarily due to its choice of tactics—specifically, violence against the public. However, there are instances where terrorist groups might employ non-lethal tactics for intimidation purposes. Conversely, in some cases, non-violent protests might transition to violent ones. Therefore, violence alone might not be a clear distinguishing factor between protests from terrorism. Protests can represent a

[16] Schumacher and Schraeder (2021); Issaev *et al.* (2021).
[17] Martin (1994).
[18] Ibid.
[19] Tucker (2007).
[20] Allo (2017).


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democratic action with social legitimacy, while terror attacks do not.[21] Terrorist attacks have the potential to escalate when protests persist, serving as a signal of strong societal backlash against government actions. Terrorist organizations can exploit the political instability fueled by persistent protests to undermine the regime and state institutions, inflicting maximum harm. Viewing political instability as an advantageous situation, they can further erode regime stability by instigating attacks on civilians, police forces, or government institutions. This exploitation of instability can exacerbate an already precarious political climate.

There are studies in the literature suggesting why individuals in countries with limited access to democratic avenues might turn to terrorism as a means of expression.[22] Young and Dugan (2008) showed that political systems with veto powers for individuals and institutions can cause deadlocks, resulting in an increasing number of terrorist attacks. Chenoweth (2013) reported a cycle of protests following government deadlocks that were themselves followed by terrorist attacks. Other work has suggested that terrorist attacks result from economic poverty,[23] economic inequality,[24] ethnic discrimination,[25] and human rights violations.[26] Tarrow (1989) sees terrorism as the final phase of a protest cycle, emerging as a tactical innovation, while Baker *et al* (2016) argue that terrorism arises as a societal response to state repression of dissident groups. For Tarrow (1989) terrorism is seen as an extension of protests, whereas Moore *et al.* (2013) argue that it results from strategic interactions between dissident groups and the government. Both studies strongly emphasize the link between prolonged protests and deep dissatisfaction arising from unresponsive governance to civil society's demands. Focusing on the context of the Gulf War in the 1990s, Ross (1993) points to the presence of other forms of political unrest as contributing factors to terrorism, such as civil disobedience, protests, and demonstrations.

This article approaches the nexus between terrorism and protests along similar lines to Chenoweth (2013), who argues that terrorism usually occurs because of dissatisfaction with the status quo and with government policies and institutions that may be failing some parts of the population. The claim is that street mobilization, even without the state provoking non-violent protests through violent repression, can escalate into violence or tactics leading to terrorist attacks. On the other hand, when groups engage in prolonged conflicts with the state, they might increasingly resort to more violent opposition methods. Ross (1995) posits that social unrest creates an environment in which demonstrators become more experienced and tolerant of violence, potentially motivating a more active terrorist presence in the country. Limited cross country empirical evidence exists, Schumacher and Schraeder (2021) use data from 156 countries from 2011 to 2014 and find a direct relationship between an increase in domestic political instability and the occurrence of terrorism—they also show that a rise in anti-government demonstrations corresponds to an increase in the occurrence of terror attacks. Issaev *et al.* (2021) reports that protests following the fall of an authoritarian regime lead to a significant rise in terrorist attacks, such as occurred in Burkina Faso—suggesting that, triggered by the antigovernment protests, terrorist attacks could intensify in insecure and politically unstable environments.

[21] Jarzabkowski *et al.* (2022).
[22] Aksoy (2012).
[23] Enders and Hoover (2012).
[24] Krieger and Meierrieks (2019).
[25] Piazza (2011).
[26] Walsh and Piazza (2010).

**Table 1: Summary statistics**

| *Variables* | *Source* | *N* | *mean* | *sd* | *min* | *max* |
|---|---|---|---|---|---|---|
| Terror | Global Terrorism Database | 442 | 177.4 | 433.2 | 1.100 | 3,934 |
| protest | Mass Mobilization Protest Data | 429 | 95.49 | 491.4 | 1.100 | 9,173 |
| growth | World Development Indicators | 442 | 3.942 | 5.06 | -36.65 | 53.38 |
| Unemployment | World Development Indicators | 442 | 7.096 | 5.020 | 0.250 | 27.47 |
| Inflation | World Development Indicators | 442 | 6.766 | 8.221 | -30.20 | 46.48 |
| trade | World Development Indicators | 442 | 57.13 | 22.58 | 11.86 | 154.2 |
| military | World Development Indicators | 442 | 2.232 | 1.269 | 0.311 | 6.896 |
| governance | By Author | 442 | 3.01e-09 | 1.670 | -2.734 | 3.676 |
| polity 2 | Polity V | 432 | 4.951 | 5.461 | -9 | 10 |
| durable | Polity V | 442 | 23.83 | 28.88 | 0 | 138 |
| Number of Countries | | 26 | 26 | 26 | 26 | 26 |

## Empirical analysis

To contribute to this limited literature on the relationship between persistent protests and terrorist attacks, a range of variables were chosen guided by the previous studies. The data used for terror incidents was collected from the Global Terrorism Database (GTD). GTD provides panel data of *terror* incidents by providing information about the time and location as well as other key variables defining aspects of terror incidents[27]. defines terrorism 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". This article uses the number of terror incidents occurring in a given year in a country. The data for the key explanatory variable, *protest* numbers are collected from the Mass Mobilization data provided by the Harvard Dataverse.[28] The data shows the number of protest incidents occurred given a year in a country for the period 1990–2020. The definition of protest is defined by the Mass Mobilization Data set as a gathering of 50 or more people to make a demand from the government; as such, it does not include inter-community disputes.[29]

Political control variables employed in this study include the *polity* variable, which indicates the level of democracy in a given country and year, a variable *durable* which indicates the number of years since the most recent political regime change (Marshall *et al.*, 2020). The *polity* variable ranges between -10 and 10, with higher values signifying a higher level of democracy; -1 indicating a complete authoritarian regime and 10 indicating a complete democracy. Other control variables used are *inflation, unemployment, trade, military,* and *growth* which are collected from the World Development Indicators dataset.[30] Moreover, we used the governance indicators from the Worldwide Governance Indicators dataset.[31] To enhance the control over governance indicators, a *governance* index was constructed using Principal Component Analysis.[32]

Table 1 details the sources of the data and the summary statistics—the sample used for the estimation covers the

[27] Start (2022, p.11)
[28] Clark and Regan (2021).
[29] Ibid.
[30] World Bank (2023a).
[31] World Bank (2023b).
[32] Principal Component Analysis is used to reduce the number of variables. The Pca command in STATA 17.0 is used, see Appendix A for further details.

period 2002–2018 for 26 countries.[33] The sample is simply selected on according to data availability. The data used for military and trade variables had missing values which filled through interpolation[34]. Table 1 shows the descriptive statistics for the variables used in the empirical estimation and indicates that both terror statistics and protest variable have significant variation. The coefficient of variation is approximately 2.5 for terror and 5 for protest indicating a significant dispersion of these variables. The logarithms of the number of terror incidents, protest numbers and GDP per capita were taken to decrease this high dispersion.

The method used for the estimation is the fixed effects model as it performs well in controlling unobserved country level heterogeneities. A lagged dependent variable and several control variables are included in the model. The model used is:

$$Terror_{i,t} = \beta_0 + \beta_1 Terror_{i,t-1} + \beta_2 Protest_{i,t} + \beta_3 Protest_{i,t-1} + \beta_4 Protest_{i,t-2} + \Gamma Z_{i,t} + \gamma_i + \varepsilon_{i,t}$$

The vector Z is the vector of control variables and the vector Γ is the vector of coefficients for control variables, where $\varepsilon_{i,t}$ is the idiosyncratic error term,[35] and $\gamma_i$ captures the country fixed effects. The model incorporates a lagged protest ($Protest_{i,t-1}$) and a two-year lagged protest ($Protest_{i,t-2}$) variable to assess the impacts of previous years' protests on subsequent terror attacks.

The estimation results for the determinants of terror attacks are displayed in Table 2 and show a strong persistence from previous terrorist attacks. While there is no effect of contemporaneous protests[36], the first and second lags are significant, positive, and robust to addition of control variables. The effect of the two-year lagged protest on the number of terror incidents remains remarkably robust after controlling for various factors, suggesting a 0.015 percentage increase of terrorist incidents in the current year, resulting from a 100 percent increase in protests, holding all other variables constant. So, if the majority of civil forces engaging in demonstrations do so only within a short timeframe (within a single year), this does not lead to any significant terrorist incidents, but will do so in the future. This implies that a lack of responsiveness from the government or the deepening conflict between the government and the societal forces can escalate the level of violence in protests and can eventually lead to the emergence of organized terrorist incidents. It also implies that if reactions against government actions do not endure over an extended period, terrorism is not likely to be triggered.

While many of the conditioning variables are insignificant, there is also some evidence of a relatively large negative effect of military strength on terror incidents, though only at $p<0.1$ in Model 2. This supports the findings of Bapat and Zeigler (2016), Plumber and Neumayer (2010), Tahir (2020), and Chen and Reynal-Querol (2008), and suggests that military strength reduces terrorism. Conversely, it contradicts Okafor and Piesse (2018), Rosendorff and Sandler (2004), and Drakos and Giannakopoulos (2009) who contended that military strength would increase terrorist activities, through a backlash that leads to a rise in terrorism. The results do not suggest that the durability of the political regime reduces terror incidents, nor the level of democracy, as measured by the Polity variable. Of the economic conditioning variables, only inflation is significant and has a negative effect. The results also show that inflation reduces terrorist activity and growth has a negative effect, but only at $p<0.1$.

Overall, the results provide a useful stepping-stone for further research, suggesting strong persistence in terror incidents over time and a clear impact of past protests. Persistence in protests against government can indeed lead to the emergence of terrorist incidents, but democracies where institutions respond to civil demand by taking appropriate actions can reduces the likelihood of terrorist action.

[33] See Appendix B for the list of countries.
[34] The missing data was filled by estimating a value with linear relationship between missing and non-missing values.
[35] The heteroskedasticity robust standard errors used in estimations. The STATA 17.0 statistical package is used to make estimations.
[36] Since the level effects were insignificant in all econometric models, they are dropped from Table 2 to ease the viewing of estimation results.

**Table 2: Estimation results**

| *Variables* | *Model 1* | *Model 2* | *Model 3* | *Model 4* |
|---|---|---|---|---|
| L.terror | 0.59*** | 0.57*** | 0.56*** | 0.57*** |
| | (0.061) | (0.058) | (0.06) | (0.057) |
| L.protest | 0.00014* | 0.00014* | 0.00014* | 0.00014* |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| L2.protest | 0.00015*** | 0.00015*** | 0.00016*** | 0.00015*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Inflation | | -0.016** | -0.02** | -0.015** |
| | | (0.0068) | (0.0076) | (0.0066) |
| military | | -0.31* | -0.33** | -0.33** |
| | | (0.18) | (0.16) | (0.15) |
| Unemployment | | -0.021 | -0.026 | -0.015 |
| | | (0.015) | (0.015) | (0.017) |
| trade | | 0.007 | 0.007 | 0.006 |
| | | (0.006) | (0.006) | (0.005) |
| growth | -0.006 | -0.021* | -0.029* | -0.02* |
| | (0.011) | (0.0119) | (0.017) | (0.011) |
| durable | | | -0.0019 | |
| | | | (0.011) | |
| polity2 | | | 0.0072 | |
| | | | (0.02) | |
| governance | | | | 0.190 |
| | | | | (0.218) |
| Constant | 1.48*** | 2.15*** | 2.3*** | 2.17*** |
| | (0.22) | (0.74) | (0.75) | (0.66) |
| Observations | 360 | 360 | 353 | 360 |
| R-squared | 0.449 | 0.468 | 0.468 | 0.469 |
| Number of countries | 26 | 26 | 26 | 26 |

*Notes*: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. L.terror is the lagged value of the (logarithm of ) number of terror incidents, L.protest and L2.protest are the lagged and second lagged (logarithm of ) values of number of protests. The military variable shows the percentage share of military expenditure in GDP, trade shows the percentage share of sum of import and export in GDP, unemployment shows the percentage share of unemployed people in total labor force. The estimation is based on the ILO estimate. The youth unemployment variable is the percentage of unemployed people whose age is between 15 and 24 in total labor force. The estimation is based on the ILO estimate. Inflation data is based on the changes in the annual GDP deflator. The governance variable is the index calculated by the author using Principal Component Analysis. The variables used in the governance index are rule of law, control of corruption, and voice and accountability.

## Conclusion

This article seeks to make a useful contribution to the existing literature by examining the impact of protests on terrorism for a panel of countries 1990–2018. It sheds light on the dynamic relationship between protests and terrorism, revealing that the nature of protests and their evolution over time can be crucial determinants in shaping the potential for terror incidents. Protests, serving as a conduit through which society communicates its reactions to state policies have the potential to trigger terrorist incidents over a prolonged period.

The findings, even after accounting for regime type and state repression capacity, highlight that in states where the responsible state institutions fail to take actions in response to civil demands, the likelihood of exposure to terrorism increases. Moreover, an argument can be made that escalating civic pressure on the government is likely to result in an increase in the occurrence of terror incidents. Taken together, these findings propose that in democracies where the governing authority consistently defers negotiations on civil demands or fails to respond in the face of escalating social tension and conflict between the government and civil forces, the probability of experiencing terror incidents is higher. This likelihood increases in conjunction with a weakened military capacity and the instability of the political regime, particularly in comparison to autocracies with robust military capacities and stable institutions. These are useful and compelling results to have, though future research will need to try to extend the country coverage and to deal with issues of heterogeneity and endogeneity.

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## Appendix A: Principal component analysis for governance

The variables used in the governance index are rule of law, control of corruption, and voice and accountability. The weight matrix for the governance index is below:

**Table A1: Weight matrix for governance index**

| *Components* | *Proportion* | *Cumulative* |
|---|---|---|
| Control of Corruption | 93 % | 93 % |
| Voice and Accountability | 6 % | 99% |
| Rule of Law | 1% | 100% |

## Appendix B: List of panel countries

| | | | | | | |
|---|---|---|---|---|---|---|
| Algeria | Colombia | Greece | Italy | Myanmar | Philippines | UK |
| Bangladesh | Congo | India | Kenya | Nigeria | Spain | Yemen |
| Burundi | France | Iran | Lebanon | Pakistan | Thailand | |
| China | Germany | Iraq | Mexico | Peru | Turkey | |