Terrorist Group Location Decision: An Empirical Investigation*

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Abstract

This paper explores the determinants of terrorist groups' location choice. In particular, I inquire into whether the number of other groups already based in a country, the political instability of a potential base country, and the distance from the potential base country to the target location influence a terrorist group's decision on where to locate its base country of operations. I apply conditional logit estimator to a data of 525 terrorist groups and 113 potential base countries of operation and find that the number of existing groups in a country increases the probability of a terrorist group choosing the country as a base of operations. More important, terrorist groups are more likely to locate in a country where existing groups share similar ideology with the entrant. A country's political instability and/or state failure raise the chances that a terrorist group will locate there, particularly for nationalist/separatist terrorist groups. Terrorist groups are more likely to base their operations closer to the venues of their planned terrorist attacks. The impact of distance, however, is nonlinear.

Keywords: terrorist group location choice, conditional logit regression, base country of operation, target country

JEL Classification: D74, H56

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1. Introduction

An emerging literature investigated terrorism at the group level. One strand of studies examined whether and how groups' characteristics (e.g., ideology, goals, age, and size) and intergroup relations explained the level of violence, types of violence, groups' lethality, and groups' adoption of electoral strategy (e.g., Asal and Rethemeyer 2008; Piazza 2008a; Horowitz 2010; Brathwaite 2013; Horowitz and Potter 2013; Nemeth 2013). Another strand of the extant literature explored the determinants of the duration of terrorist groups (Cronin 2006; Jones and Libicki 2008; Blomberg, Engel, and Sawyer 2010; Blomberg, Gaibulloev, and Sandler 2011; Gaibulloev and Sandler 2013; Phillips 2013). Recently, this literature inquired into why terrorist groups ended their campaigns in certain way such as being defeated through force, joining the political process, achieving victory, and/or splintering (Carter 2012; Daxecker and Hess 2013; Gaibulloev and Sandler 2014). This literature found that the location of groups' bases matters to the survivability of terrorist groups. Furthermore, base countries' attributes not only determined groups' longevity, but they also explained why and how terrorist groups ended their operations. However, systematic research remains virtually nonexistent on the factors that influence a terrorist group's decision on where to base its operations. The current paper contributes to the literature by investigating into the determinants of where a terrorist group chooses to locate its base country. An understanding of why terrorist groups base their operations in particular countries has important policy relevance, since this knowledge can inform the international community where new groups may set up their home bases. If, for example, a country's political or economic instability attracts new groups, then stabilizing the potential base country should be part of a counterterrorism strategy.

This paper differs substantially from earlier studies that touched upon groups' location. Piazza (2008b) uncovered that failed states are more likely to host terrorist groups that commit transnational terrorist attacks; however, this conclusion is based on correlation analysis, which does not control for other factors. More germane to the current study, Piazza's main focus was not on the base-country choice of terrorist groups. His econometric analysis looked into the relationship between failed states and transnational terrorism, using the number of transnational terrorist events as a dependent variable. Aksoy and Carter (2014) examined the interplay between terrorist group goals, electoral institutions, and the emergence of terrorist groups. These authors showed that group goals are important determinant of whether terrorist groups emerged in democracies or not. The closest study to the current paper is Bapat (2007), which is the first article that systematically investigated this issue. He developed a game-theoretical model to explain why a terrorist group chooses a foreign, rather than target, country as a base of operation and why and when the foreign country agrees to host the group. Using a data on 73 conflicts between states and terrorist groups during 1990-2001, Bapat (2007) found that as a host country's capability increases, it becomes a more likely home base for the terrorist group, presumably because target countries are less likely to retaliate against a militarily strong hosting state. Also, failed states and states that have lower political affinity with the target country are more likely to attract terrorist groups. Distance between a targeted country and a host country has a negative impact on the probability of a group basing itself in a country. The current paper differs from Bapat (2007) in a number of ways. First, I employ a different empirical methodology. For example, a much larger sample allows me to examine terrorist groups' base decision across different ideologies, different time periods, and diverse regions, unlike Bapat (2007). Second, I use a richer set of regressors that accounts for base-country attributes. My estimation method also accounts for group-specific characteristics. Third, the richer data set

allows for a broader and more nuanced investigation regarding terrorist groups' choice of base country. For example, I examine how the presence of other terrorist groups in a country or the degree of the country's trade openness affects a group's location choice. These exercises produce new insights on how groups choose their base of operation (Section 4).

The primary purpose of this study is to explore the impact of the number of existing groups in a country, the political instability of the intended base country, and the distance from the intended base country to the target location on a terrorist group's decision on where to locate its base of operations. A secondary purpose is to inquire broadly on determinants of a terrorist group's choice of location. To accomplish this goal, I construct a rich dataset of 525 terrorist groups and 113 potential base countries of operation. The dataset combines information on potential base-country attributes and a supply-side variable that captures the terrorist group's cost of locating in a particular country. The conditional logit regression model, which accounts for group-specific characteristics, is applied to lay bare a terrorist group's location decision. Myriad additional analyses check the sensitivity of results, as well as offering insights by splitting the data by regions, time periods, group ideology, number of bases, etc. (Section 4).

I find that the presence of other terrorist groups in a country increases the likelihood of a terrorist group choosing the country as a base of operations. By basing in the same country, terrorist groups gain from sharing knowledge, innovation, and other resources, while diluting the base government's counterterrorism resources. Furthermore, terrorist groups are more likely to base in a country where existing groups share the same ideology as the entrant, insofar as groups with a similar ideology are better equipped to overcome collective action problems. Ideology also influences groups' adoption of new tactics (Horowitz 2010). A country's political instability and/or state failure raise the chances that a terrorist group will locate there, particularly for nationalist/separatist terrorist groups. This supports the view that unstable and

failed states are favorable environments for terrorist groups to operate and for new groups to emerge. Terrorist groups are more likely to base their operations closer to the location of their terrorist attacks, which limits operation costs.

The reminder of the paper contains four sections. Section 2 defines terrorism and discusses theoretical considerations, along with the expected signs of the explanatory variables. Section 3 explains the empirical methodology and describes the data and variables. Section 4 presents regression results and sensitivity analyses, followed by concluding thoughts in Section 5.

2. Preliminaries and theoretical considerations

Terrorism is "the premeditated use or threat to use violence by individuals or subnational groups to obtain a political or social objective through the intimidation of a large audience beyond that of the immediate victims" (Enders and Sandler 2012, p. 4). The distinct features of terrorism are the application of violence and its associated political or social goals. A violent act without a political/social agenda is a criminal act. These goals may include achieving territorial changes, pursuing regime change, or promoting social revolution (Jones and Libicki 2008). Terrorist groups level their violence in the hopes that the intimidated audience pressures the government to grant their demands. Larger terrorist groups tend to make more ambitious demands, such as regime change or social revolution, while smaller groups usually restrict themselves to issuing relatively moderate demands, such as policy change (Jones and Libicki 2008). Some terrorist groups may join the political process once one or more of their demands are achieved. Groups with broadly defined goals (e.g., regime change, empire, or social revolution) are less apt to join the political process; presumably, the associated costs with making such concessions are too high for the targeted government (Gaibulloev and Sandler 2014). Like RAND's (2012) terrorism

definition, the above definition is confined to individuals or subnational groups and rules out state terror, where a state intimidates its own people. However, the definition does not preclude state sponsorship, where a government assists terrorists with arms, training, save haven, or other resources.

I assume that terrorist groups are rational; they try to fulfill their goals, given limited resource, and they respond to changes in their constraints in a way that maximizes their objectives. This assumed rationality is consistent with much of the literature on terrorism (e.g., Landes 1978; Enders and Sandler 1993, 2012). A terrorist group faces a decision of choosing a base location from *J* alternative countries. For alternative *j*, the terrorist group has a utility that depends on the country *j*'s attributes, the costs of locating in *j*, and the group's characteristics. Factors that increase the group's longevity and boost its likelihood of successful attacks will increase the group's utility. Among alternative countries, the terrorist group will choose the location that maximizes its utility.

The location-specific attributes include the number of other terrorist groups already based in the country, and the degree of the country's political stability. The presence of other terrorist groups in a potential base country is desirable for new terrorist entrants for a number of reasons. First, as the number of these groups increases, the base government must dilute its counterterrorism resources over more terrorist groups. Second, terrorist organizations may collaborate on attacks, share knowledge, pool information, utilize common training facilities, and divide other resources (Gaibulloev, Sandler, and Sul 2013; Hoffman 2006; Phillips 2013). Horowitz (2010), for example, showed that terrorist groups mimic successful attacks, even though the groups' organizational structure and networks determine which tactics to adopt. Thus, collaboration makes terrorist groups more productive and more resourceful. The costs of joint training, sharing new tactics, and acquiring knowledge are lower if cooperating groups are

based in the same country. Third, terrorist groups are more likely than governments to overcome collective action problems and act together (Sandler 2005; Sandler and Gaibulloev 2012). Cooperation, in turn, fosters terrorist groups' longevity even in challenging conditions, such as surviving in more capable states and autocracies (Phillips 2013). In contrast, there are factors that inhibit groups' collective action success and dissuade groups from locating near to one another. Groups' competition for resources may lead to intergroup conflicts. Siqueira (2005) showed that disagreements between political and military arms of terrorist groups may hamper collective action. This may also be true for rival groups with a common goal but different campaigns for achieving it. The sign of the net benefits of locating in the same country as other groups is an empirical question that we pursue below.

Following Takeyh and Gvosdev's (2002), there are three rationales for groups locating in a politically unstable or failed country. First, failing and failed states lack capacity to project power internally to secure its territory and borders; this creates a favorable environment for terrorist groups to operate with impunity. Terrorist groups possess more freedom in organizing, training, and generating revenue in failed or failing states than in non-failed states. In some instances, terrorist groups create "stateless areas" within which they function autonomously without fear of government retribution. Such areas reduce the costs of staging attacks domestically and abroad. Second, political instability and the concomitant lack of economic opportunities expand the pool of potential recruits for the groups. Third, by basing in unstable and weak states, terrorist groups limit government reprisals. The base country lacks capability to annihilate the groups, while counterterrorism measures by targeted foreign countries are limited owing to the base country's sovereignty. In addition, conflicts may lead to the emergence of new groups. As a conflict becomes bloodier, the chances of parties resorting to terrorist attacks

increase as currently evidenced in Syria.[1] Available empirical evidence suggests that failed states are more likely to host terrorist groups that commit transnational attacks (Piazza 2008b). Thus, I anticipate a positive impact of conflicts on location choice.

There are other base-country attributes that impact terrorist groups' location decision. Groups may choose a high-income country for skilled recruits (Gaibulloev, and Sandler 2013). However, higher income countries can afford to spend more on counterterrorism. Larger population in the location country increases terrorists' chances of finding new recruits. In addition, more densely populated locations can offer a protection, so that groups are harder to locate or attack. Increase in defensive measures makes a country a less desirable home base for terrorists. Government spending or military expenditure may serve as a proxy for a government's counterterrorism activities. Trade stimulates the flows of people, goods, and services, allowing terrorist groups to find it easier to move resources and people, access new technologies, and smuggle terrorist materiel across borders (Li and Schaub 2004). Consequently, the impact of trade openness on the choice of base is expected to be positive. The literature on groups' survivability theorized that a base country's democracy, fractionalization, elevation, tropical area, landlocked area and regional location influence a based group's longevity and success (e.g., Blomberg, Engel, and Sawyer 2010; Blomberg, Gaibulloev, and Sandler 2011; Gaibulloev and Sandler 2013). Therefore, these country characteristics are expected to impact a terrorist group's location choice.

Costs associated with planning and supplying attacks from a base location to a target location are important considerations for groups' location decision. If a group decides to base in a country other than its target state, then it should account for the costs associated with the

[1] Conversely, terrorist groups in weak and failed states may be exposed to more counterterrorism actions by concerned countries owing to weaker sovereignty and nonintervention norms (Menkhaus 2003). Furthermore, terrorist groups may find themselves dragged into domestic conflict and this "taking sides" complicates groups' operations and survivability.

movement of terrorists and resources across border(s). The longer is the distance between a group's location and its venue country, the higher is its expected costs. Trade openness may lower the costs of operating from a distance. As such, the negative impact of distance on a terrorist group's location choice is smaller for a more open country. In addition, as countries become more open over time, the impact of distance is expected to diminish.

A terrorist group's characteristic, such as its goal(s), tactics, and ideology can also influence the group's location choice. Aksoy and Carter (2013) showed that a terrorist groups' goal is an important determinant of where – in democracies or non-democracies – terrorist groups emerge. Groups with nationalistic/separatist ideologies may gain from locating inside or in close proximity of the venue country. Groups such as Al Qaeda, however, are not confined ideologically to a particular country or territory (Takeyh and Gvosdev's 2002).

3. Empirical methodology and data

3.1 Empirical methodology

Consider a terrorist group i that chooses which country to base its operations. After basing in country j, group i's indirect utility is $U_{ij} = U(\mathbf{x}_{ij}, \boldsymbol{\theta}_j, \boldsymbol{\mu}_i)$, where $\mathbf{x}_{ij}$ is a vector of the group's costs from locating in country j, $\boldsymbol{\theta}_j$ is a vector of attributes of country j, and $\boldsymbol{\mu}_i$ is a vector of group-specific characteristics. The distance between the group's base country and its target location is used to capture a terrorist group's costs of locating in a particular country. A location country's attributes include socio-economic, political, and geographical attributes. An example of group-specific factors is a group's goal. Not all attributes and characteristics are observable. I assume

that the utility of each location choice is a linear function of $\mathbf{x}_{ij}$, $\boldsymbol{\mu}_i$, and $\boldsymbol{\theta}_j$, and add a stochastic term to obtain the group's random utility:

$$U_{ij} = \mathbf{x}_{ij}\boldsymbol{\beta} + \boldsymbol{\theta}_j\boldsymbol{\gamma} + \boldsymbol{\mu}_i\boldsymbol{\lambda} + v_{ij}, \quad (1)$$

where v_{ij} is idiosyncratic error term that affects tastes, and $\boldsymbol{\beta}, \boldsymbol{\gamma}$, and $\boldsymbol{\lambda}$ are corresponding vectors of parameters (McFadden 1974). Terrorist group i locates its base of operations in country j, if the utility of choice j, U_{ij}, is the largest among the utilities of *J* choices, where *J* denote the number of alternative base countries. That is, $y_i = j$ if $U_{ij} > U_{ik}$ for all $k \neq j$, where y_i denotes the utility-maximizing location choice of terrorist group i. I assume that *J* disturbances, v_{ij}, are independently and identically distributed with the type I extreme value distributions, $F(v_{ij}) = \exp[-\exp(v_{ij})]$. Then, following McFadden (1974), the probability of choosing location j by terrorist group i is

$$\mathrm{P}(y_i = j \mid \mathbf{x}_{ij}, \boldsymbol{\theta}_j) = \frac{\exp(\mathbf{x}_{ij}\boldsymbol{\beta} + \boldsymbol{\theta}_j\boldsymbol{\gamma})}{\sum_{k=1}^{J}\exp(\mathbf{x}_{ik}\boldsymbol{\beta} + \boldsymbol{\theta}_k\boldsymbol{\gamma})}. \quad (2)$$

Equation (2) is the conditional logit model. The terrorist group's characteristics, $\boldsymbol{\theta}_j$ – which do not vary across countries – do not appear in equation (2) because they cancel out of the probability. Thus, the model controls for all unobserved heterogeneities that are specific to terrorist groups. Define $c_{ij} = 1$ if $y_i = j$, and 0 otherwise. The conditional logit model in (2) is estimated by maximizing the log-likelihood function,

$$\ln L = \sum_{i=1}^{N}\sum_{j=1}^{J} c_{ij} \ln \mathrm{P}(y_i = j), \quad (3)$$

where *N* is the number of terrorist groups.

3.2 Data

The sample consists of 525 terrorist groups and 113 potential base countries of operations. Socio-economic, political, and geographical independent variables, associated with potential base locations, are included along with a supply-side variable that captures the terrorist group's costs of locating in a particular country. Because the conditional logit model accounts for unobservable group-specific characteristics (see Method section), group-specific variables are not included. The dependent variable is 1 if a terrorist group chooses a particular country as a base location, and is 0 otherwise. Data on when a terrorist group started and its base country or countries of operations comes from Jones and Libicki (2008). More than 78% of sample terrorist groups possessed a single base country of operations, while less than 3% of these groups had more than three base countries.

Next, a host of variables are constructed that are associated with the groups' base country attributes. For each group, the time-varying location variables correspond to the year when a group made an entry decision. To assess whether terrorist groups' decision to locate in a particular country are affected by the presence of other terrorist groups in that country, I introduce a variable *Other Groups*. This variable denotes the number of other terrorist groups already located in a particular country when terrorist groups decide their base location. Data from *Penn World Table Version 7.0* (Heston et al. 2011) are used to compute the logarithm of real GDP per capita (ln(*GDP/POP*)), the logarithm of population (ln(*POP*)), logarithm of the share of trade in GDP (ln(*open*)), and the percentage share of government spending in GDP (*Gov. Exp.*). Government spending partially accounts for counterterrorism efforts of the potential base country. An alternative proxy for counterterrorism is the share of military expenditure in GDP (*Military Exp.*), taken from the World Bank (2010). The data on military spending is available only after 1987; hence, I use this measure in the robustness analysis.

Political instability and/or state failure diminish a government's capacity to fight terrorist groups at home. Additionally, conflicts may contribute to the emergence of new groups. The data on four types of conflict and state failure events – revolutionary wars, ethnic wars, adverse regime changes, and genocides and politicides – come from the *Political Instability Task Force* (Marshall et al. 2009). For these indices, the magnitudes range between 0-4 for ethnic and revolutionary wars, 1-4 for adverse regime change episodes, and 0-5 for genocide and politicide events. Larger values are indicative of more momentous events with greater consequences. The indices of revolutionary and ethnic war include annual information on the number of rebel fighters and activists, the number of deaths, and the portion of the country impacted. War events are identified based on minimum thresholds in terms of the number of conflict participants and death tolls (see Marshall et al. 2009). The adverse regime change index summarizes annual information on the extent of failure of the central state institutions, collapse of democratic institutions, and armed violence against the state. Finally, the genocide and politicide index captures the annual intensity of a relevant event; this index ranges between 0 for events with less than 300 fatalities and 5 for events with more than 256,000 fatalities. All indices are converted so that they start from 1 rather than 0, since 0 in the data implies that there is no conflict. *Conflict* is an indicator variable that is 1 if any of the four types of events occurred at a given time in a country. The dichotomous variable is used owing to the difficulty of aggregating indices associated with distinct types of events. As a robustness check, we also introduce *Conflict1*, which is a combined score of the four types of events and *Conflict2*, which is the maximum of the revolutionary and the ethnic war scores. There are some instances of multiple ethnic war events in a given year, which are handled by averaging the magnitude scores.

The *Polity* variable accounts for the degree of democracy and ranges between –10 and +10 (Marshall and Jaggers 2009), in which larger positive values reflect stronger democratic

institutions. Ethnic fractionalization (*Ethnic Frac.*) and religious fractionalization indices (*Religious Frac.*) are included to control for a country's religious and ethnic diversity, respectively (Alesina et al. 2003). Each variable ranges between 0 and 1 with larger values indicative of greater diversity. Variables are also included to control for geographical and geological characteristics of terrorist groups' base countries. The logarithm of a country's elevation [ln(*elevation*)], a country's share of tropical land area (*Tropics*), and a country's access to international waters (*Landlocked*) are based on the data from Gallup et al. (1999a) and Gallup et al. (1999b). The latter variable is 1 if a country lacks direct access to international waters, and 0 otherwise. Using information on population (Heston et al. 2011) and land area (Gallup et al. 1999a; Gallup et al. 1999b), I compute population density in thousands of people per square kilometer (*POP Density*) for each sample country. Regional dummy variables for East Asia and Pacific (*EA & Pac.*), Europe and Central Asia (*Eur. & CA*), Latin America and Caribbean (*LA & Carib.*), Middle East and North Africa (*ME & N. Afr.*), North America (*N. America*), South Asia (*S. Asia*), and sub-Saharan Africa (*S.S. Africa*) are created based on World Bank's (2010) classification.

Finally, the distance between a terrorist group's target countries and its potential base country of operations (*Distance*) are calculated to capture the costs associated with planning and supplying terrorist attacks from a base country. This distance variable is constructed as follow. First, I identify countries that were venue of a group's terrorist attacks to serve as a proxy for the group's target country. Second, I compute the share of the group's transnational attacks in each venue country, either over the group's lifespan or through 2009 if the group was still active. Information on transnational terrorist attacks by groups comes from *RAND Database of Worldwide Terrorism Incidents* (RAND 2012). In some instances, the same terrorist group has different variants of its names reported in RAND (2012) and in Jones and Libicki (2008). We

manually checked terrorist groups' names in the RAND data and made any necessary corrections to ensure that all attacks by sample groups are recorded. Alternatively, I could identify target country using victim's nationality; however, since RAND (2012) does not record victim's nationality, this alternative could not be implemented. The Global Terrorism Database (GTD) (National Consortium for the Study of Terrorism and Responses to Terrorism 2009), for example, has information on victim's nationality. If, however, I were to use GTD, then the number of terrorist groups in the sample would be severely reduced (Gaibulloev and Sandler 2013). Third, we obtain information on distances in kilometer from the CEPII (Mayer and Zignago 2011), which is computed using the great circle formula. Fourth, we compute the average distance between a group's potential base or location country and its target countries, weighted by the share of the group's transnational terrorist attacks in each target country. Thus, for group *i*, the distance between its target countries and its (potential) location country *j*, d_{ij}, is

$$d_{ij} = \sum_{k \in K_i} w_{ik} d_{jk},$$

where w_{ik} is the share of transnational terrorist attacks perpetrated by group *i* in country k, d_{jk} is the distance between group *i*'s target country k and its location country *j*, and K_i is the set of all group *i*'s target countries, i.e. countries that were venues for terrorist attacks by group *i*. We also include the squared term of distance (*Distance sqrd.*) to check for a possible non-linear effect of distance. The number of groups reduces to 352 with distance data owing to missing observations and an absence of recorded terrorist attacks by some groups in RAND database. The advantage of using this subsample is that I narrow the focus on the behavior of those terrorist groups that perpetrated at least some transnational terrorist attacks.

From 352 groups, 81 groups staged all or part of their terrorist attacks outside their base country of operations and 207 groups carried out terrorist attacks solely in their base countries.

Another 64 groups with multiple bases of operations perpetrated part of their attacks in one of their base locations. I do not have information on the extent to which each base was involved in planning and executing such attacks; it is likely that the base in venue country might had a more prominent role in committing those attacks, but this is purely speculative.

Summary statistics of variables along with data sources are gathered in Table 1. The number of observations is less than 59325 for some variables owing to missing observations. The mean number of other groups is 1.5. The means of the conflict dummy variable (*Conflict*) and *Distance* variable are 0.21 and about 70.4 (in 100 kilometers), respectively. These averages are taken over all sample observations.

[Table 1 near here]

Out of the 59325 observations in our sample, 699 observations correspond to *actual* base country choices made by terrorist groups (i.e., the dependent variable is 1). Now I describe the variables statistics for these 699 actual choices. The average number of other existing terrorist groups in a base country is about 6. If these 699 observations are divided into two subsamples – before 1990 and after the start of 1990, then the average number of groups is about 4 in the before-1990 subsample and about 8 in the after-1990 subsample. Similarly, the average distance is about 12 or 1200 kilometers. The mean distances are about 1400 kilometers and 900 kilometers for before 1990 and after the start of 1990, respectively. These are striking statistics. If groups' concentration were due to agglomeration economies, then one would expect that the benefits associated with locating near each other should fall, as transportation and communication costs have decreased in recent decades. Similarly, it would seem that the distance should become less important due to easier movement of people, goods, and knowledge across space. Yet terrorist groups are more concentrated and are based closer to target countries after 1990. Since 9/11 and increases in border defenses and homeland security in rich countries,

movement of terrorists is likely impeded and may partly explain this clustering. The mean of *Conflict* is 0.35, suggesting that 35% of base countries experienced some types of instability at the moment of terrorist groups' entry. Figure 1 shows the percentage of base countries with at least one (other) terrorist group and the percentage of base countries that experienced some type of conflict at the moment of a group's entry.

[Figure 1 near here]

The vast majority of groups, about 86%, chose a country that already had terrorist groups based on its soil. This percentage did not change over time. Before 1990, about 30% of base countries experienced a conflict at the moment of a group's entry. This number jumped to 40% after the start of 1990. The Polity data is available for 648 (out of 699) location choices made by the sample groups and 399 of those choices correspond to countries with Polity score of 5 or higher at the time of a group's entry. This agrees with Eubank and Weinberg's (1994) finding that terrorist groups are more likely to be present in democratic countries.

Various factors can explain the above observations. For example, a group may choose a base country not just because of the presence of other terrorist groups, but also due to attractive socio-economic and political conditions that attracted other groups. Even though transportation costs declined in the later period, this era coincided with a significant increase in counterterrorism efforts by the US and its allies and much less state sponsorship (Enders and Sandler 1999; 2012). These considerations inhibited groups from moving resources or communicating across countries. In the next section, I perform econometric analysis by controlling for these and other factors.

The list of location countries and their corresponding geographical regions are given in Table A1 in the Appendix. Out of 113 countries in our sample, 11.5% are in East Asia and Pacific, 28.3% are in Europe and Central Asia, 17.7% are in Latin America and Caribbean,

13.3% are in Middle East and North Africa, 1.8% are in North America, 6.2% are in South Asia, and 21.2% are in sub-Saharan Africa. Similarly, 7.2% of sample terrorist groups are based in East Asia and Pacific, 32.1% in Europe and Central Asia, 14% in Latin America and Caribbean, 21% in Middle East and North Africa, 3.6% in North America, 14.5% in South Asia, and 7.7% in sub-Saharan Africa (Table A2 in the Appendix). These numbers include multiple bases of operations for about 21% of groups. Terrorist groups in the Middle East and North Africa and in South Asia are concentrated in fewer base countries; the numbers of groups per country are about 10 and 14, respectively. In contrast, although about 21% of base countries are in sub-Saharan Africa, less than 8% of sample groups are based in this region. This suggests that, on average, groups in sub-Saharan Africa are relatively spread among base countries with around 2.2 groups per base country.

4. Empirical results

Table 2 presents the main results, for which Model 1 is the baseline regression. Model 2 adds the number of other terrorist groups, elevation, landlocked, and tropics variables to the baseline regression, while Model 3 also includes the distance variable. Finally, Model 4 adds the squared distance term and an interaction between distance and trade openness. Models 3 and 4 are restricted to the subsample of terrorist groups that perpetrated at least one transnational terrorist attack.

[Table 2 near here]

Primary variables of interest are highlighted. *Ceteris paribus*, a terrorist group is more likely to base its operations in a country that has a greater number of existing terrorist groups, *Other Groups*. The finding is statistically significant across all models that control various factors. For terrorist groups, this suggests that the benefits associated with other terrorist groups

in a base country outweigh the resulting costs. The impact of conflict on the probability of a group's location choice is positive; but, it is only statistically significant in Model 1. There, thus, is no statistically robust evidence that terrorist groups prefer to base their operations in a politically unstable country. Two alternative measures of conflicts – the combined score of the four distinct types of conflicts and the maximum score of revolutionary war and ethnic war – are used as a robustness check, but they are not statistically significant in Models 2-4. There is, however, a positive link between conflict and the number of terrorist groups, since the average number of these groups is about three times higher (4.42 compared to 1.54) in places and times of conflict. When Models 2-4 are re-estimated by excluding the *Other Groups* variable, the conflict variable is statistically significant in all Models. The other two alternative measures of conflict also become statistically significant in the absence of *Other Groups* (results are available upon request). This finding, however, must be taken with caution due to endogeneity concerns that follow from excluding *Other Groups*.

The distance variable has a negative impact on the likelihood of a group's location choice (Models 3-4), which implies that, on average, terrorist groups are more likely to base themselves closer to the venues of their terrorist attacks. Distance has a nonlinear impact on the likelihood of a group's location choice as evidenced by a positive coefficient of the squared term of distance (Model 4), indicative of a U-shape distance relationship. This might arise from different means of supplying terrorist attacks for near and far targets. For the latter, groups may rely on web communications and air transportation making distance relatively less important. As countries become more open, the effect of distance may diminish owing to fewer barriers to the movement of terrorists' resources across borders (Section 2). I test this hypothesis by introducing an interaction term between distance and trade openness (Model 4); however, this variable is not statistically significant.

I investigate the sensitivity of the main findings by restricting the sample to 413 groups, which had a single base country of operation. I also re-estimate the regressions using only those 81 terrorist groups that perpetrated, at least part of their attacks, outside their base countries. The main conclusion holds. To control for common factors that may impact terrorist groups' location decision, I include the average of the explanatory variables over base countries as additional control regressors. The distance and the number other terrorist groups variables remain statistically significant with the correct signs (results are available upon request).

As for the control variables, the impacts of trade openness, government expenditure, and fractionalization are not statistically significant. Because of multicollinearity concern between ethnic diversity and religious fractionalization, religious fractionalization is excluded; but ethnic diversity remains insignificant. I also use military expenditure, instead of government spending, as an alternative measure of a government's capacity to fight terrorism. The sample size falls drastically because the military spending data is available only after 1987. Like government spending, military expenditure is not significant, but the main results hold (results are available upon request). Population and elevation increase the likelihood of a country being chosen as a base, whereas tropical area reduces this probability. This suggests that larger populations provide more operatives and better hiding opportunities, while elevation fosters hiding. The impact of per capita GDP is positive and significant in Models 1, 3, and 4. This might be driven by the leftist era of terrorism, when many leftist groups were based in Western countries, which I investigate later. The number of observations differs between Models 1 and 2, which may impact the statistical significance of the per capita GDP. I re-run Model 1 and keep the sample size identical to Model 2; the per capita GDP variable remains significant until the *Other Groups* variable is added. The signs of the estimated coefficients for population density, polity, and regional dummy variables, except Europe and Central Asia, change across models. For example,

the Polity coefficient is positive and statistically significant in Model 1, but is negative and statistically significant in Models 3-4. These differences might arise from different sample sizes. Furthermore, the sample in Models 3-4 is restricted to those groups that performed some transnational attacks. Therefore, I re-estimate Model 1 using the sample size of Models 3-4 and found generally the same result, so that differences in the estimated coefficients and their signs are not driven by alternative sample sizes.

Next, I divide the sample into two subsamples: terrorist groups that made their location choice before 1990 and after the start of 1990. Out of 525 groups, the before-1990 subsample consists of 234 groups, while the after 1990 subsample consists of 291 groups. This division allows me to contrast the era of greater state sponsorship of terrorism to that of less state sponsorship (Hoffman 2006; Enders and Sandler 2012). To some extent, this also permits an intertemporal investigation of the main variables, such as distance. The second period subsample also captures, in part, the increased counterterrorism efforts by international community[2]. Table 3 presents the results.

[Table 3 near here]

Models 1-3 are specified similarly to Models 1-2 and 4 in Table 2, respectively. The main results do not differ in terms of sign and statistical significance across the two periods. The number of other terrorist groups is a positive determinant, while distance is a negative determinant of a group's location choice. The estimate of the squared term of distance is positive, suggesting that the negative impact of distance diminishes so that at some point the effect of distance becomes positive. Conflict, however, is not statistically significant when included with *Other Groups* variable (Models 2-3). These results confirm the main findings in

[2] The earlier period is also the era of leftist terrorists and nationalist/separatist terrorists, while the later period is the era of fundamentalist terrorists (Hoffman 2006; Repoport 2004). Different tactics by leftist and fundamentalist groups might impact their prospects of basing in a country. The conditional logit regression accounts for group-specific characteristics, such as tactics and ideology. Nevertheless, the division would capture these differences.

Table 2. In terms of control variables, in both periods, more populated countries are preferred base choices by terrorist groups, whereas countries with larger tropical areas are less likely location choices by terrorist groups. Terrorist groups are less likely to choose a country with larger religious diversity as a base of operation after the start of 1990. The effect of religious diversity is not robust before 1990. For the period before 1990, the impact of Europe and Central Asia is negative in Models 1 and 4 and positive in Models 2. The sign of the Latin America and Caribbean variable is also sensitive to the model specification and sample size. These variables are not statistically significant across all models for the period after the start of 1990. The impacts of other regressors are not robust in both subsamples.

I perform several additional robustness checks. I divide the sample into four regional subsamples: East Asia, Pacific and South Asia (*EAP & SA*), Europe and Central Asia (*ECA*), Latin America, Caribbean and North America (*LAC & NA*), and Middle East, North Africa and sub-Saharan Africa (*MENA & SS. Afr.*). Given a small sample size concern, I combine some regions. Table 4 presents the estimates of the primary variables as well as those controls that are statistically significant across various models for a region. To save space, I only show two models for each region. Models 1-2 are similar to Models 2 and 4 in Table 2, except for the exclusion of regional dummy variables. Key findings generally hold across different regions. The estimated coefficient for the number of other groups is positive (in seven of the displayed models), the effect of distance is negative, and the impact of the squared term of distance is positive. These coefficients are statistically significant across all models and regions, except for *Other Groups* in Model 2 for *EAP & SA*. The conflict variable is not robust, as it had been in Table 2. The sole exception is *LAC & NA*, where the impact of conflict is negative on location choice, which is surprising. I revisit this result when discussing group ideology. Religious fractionalization has a negative effect on location choice in *ECA*, while population size has a

positive impact on location choice in *MENA & SS. Afr*. The estimated coefficient for an interaction between distance and trade openness is negative and marginally significant for *LAC & NA.*

[Table 4 near here]

For the entire sample period, I then partition my sample into three subsamples based on terrorist groups' ideology: left wing (192 groups), nationalist/separatist (189 groups), and religious and right wing (144 groups) (Table 5). Models 1-3 are specified similarly to Models 1-2 and 4 in Table 2. Again, the results across ideological subsamples consistently support the main findings in Table 2. A number of other results, however, differ across subsamples. An important new finding is that nationalist/separatist groups are, *ceteris paribus*, more likely to locate in a country that experiences conflict. This finding distinguishes from the non-robust effect of conflict in Table 2. In our sample, 245 location choices correspond to base countries that were experiencing instability. Nationalist/separatist groups made 105, or 43%, of these location choices. Thus, there is a positive correlation between nationalist/separatist groups' location choice and conflict. The impact of conflict is not significant in the subsamples of left-wing, religious, and right-wing groups.

[Table 5]

Left-wing terrorist groups are more likely to choose a country in Latin America and Caribbean or North America as a base country. In contrast, the impacts of these regional variables are not robust for nationalist/separatist terrorist groups, though the sign of the coefficients are generally negative. Latin America and Caribbean is statistically significant in Models 1-2, whereas North America is statistically significant in Models 1 and 3 with changing sign of coefficients. Only 16 location choices out of 259 choices made by nationalist/separatist groups are located either in Latin America and Caribbean or in North America. This difference

of location choice between nationalist/separatist groups and left-wing groups may, in part, explain the negative impact of conflict for *LAC & NA* (see Table 4). Religious and right-wing terrorist groups are less likely to locate in Europe and Central Asia. The estimated coefficient for Europe and Central Asia variable is significant for the left-wing subsample but its sign changes across models. The same holds true for the effect of sub-Saharan Africa variable for the nationalist/separatist subsample. The impacts of other regional dummy variables are not robust. More populated countries and countries with higher elevation level are more likely base locations for religious and right-wing terrorist groups, while countries with larger tropical areas are less likely choices for these groups. The country' elevation is also positive and significant for the leftist group subsample. The impacts of population and tropical area, however, are not significant for left-wing and nationalist/separatist subsamples. Greater religious diversity reduces the likelihood of a country being chosen by left-wing groups. This variable is not significant for the other two subsamples.

So far, I did not distinguish between the entering group's ideology and the ideology of the other terrorist groups already based in a country. In Table 6, I re-estimate Model 3 of Table 2 but distinguish the number of other groups by ideology. For example, *Other Groups LW*, denotes the number of other based groups that are leftist. Although I do not show the results for other model specifications, these results are similar to the findings in Table 6 (available upon request). Left-wing terrorist groups are more likely to choose a country with a greater number of already-based leftist groups, which also holds for nationalist/separatist, religious, and right-wing groups. Thus, a terrorist group is more likely to base in a country where resident groups have a similar ideology to the entering group.

5. Conclusion

This paper contributes to the literature by extending earlier work on terrorist groups to elucidate why these groups choose a particular country as their base of operations. The paper's primary focus is to investigate whether a country's political instability and/or state failure, its existing terrorist groups, and its distance to terrorist attacks' venues impact a terrorist group's likelihood of locating in the country. We answer these questions by applying the conditional logit regression to a data of 525 terrorist groups and 113 alternative location-choice countries. Myriad other variables are included to control for various factors that might influence this base decision. Moreover, a multitude of sensitivity checks are performed to ascertain the robustness of the primary findings to alternative model specifications.

The paper's findings demonstrate that a country's current number of other terrorist groups is a robust determinant of a group's location choice; the presence of other terrorist groups makes a country a more likely home base for entrant groups. However, a more decomposed analysis indicates that the influence of other terrorist groups depends on ideological similarity among existing groups and the entrant; in particular, a terrorist group is more likely to base itself in a country where existing groups possess a similar ideology. For example, a left-wing terrorist group prefers to base itself in a country with more leftist terrorist groups, but the current number of nationalist groups does not affect the basing decision of leftist groups. Terrorist groups are more apt to base their operations closer to the venues of their planned attacks. The impacts of conflict and state failure are sensitive to the inclusion of the number of other terrorist groups owing to the high correlation between these variables. Robust results for conflict emerge when we partition our sample by regions and group ideology. For a subsample of Latin America, Caribbean, and North America, terrorist groups are less likely to locate in politically unstable countries. However, the subsample of nationalist/separatist groups is more likely to base in a country experiencing political instability owing to complementary influences. Other interesting

findings follow. In particular, population size and country elevation positively influence the home base decisions of terrorist groups. For the post-1990 subsample, a country's religious diversity negatively impacts the likelihood of a group's location choice.

A number of policy implications emerge from the analysis. Countries, already hosting terrorist groups, are susceptible to attracting new groups with similar ideology. As such, more international proactive counterterrorism resources should be directed to these countries to eliminate existing terrorist groups, while augmenting the entry costs of new groups with a similar ideology. Furthermore, the international community must evaluate terrorist groups in a broader context, accounting for the interdependency of groups' location choices. Countries, nearer to terrorist groups' intended attack venues, are more likely to be chosen as a home base, which, in turn, requires cooperation among neighboring host and venue countries. Cooperation and collective responses prevent regional disputes associated with cross-border attacks. The recent geographical shift of terrorist attacks to the Middle East and North Africa (Enders and Sandler 2006, 2012), combined with this tendency of terrorist groups to base themselves closer to their targets, imply that more groups will base in this region, unless the international community collectively addresses this challenge. Finally, assisting failed and failing states in their state building and addressing internal conflicts around the world must be an essential part of multilateral counterterrorism strategy. In the 2008 US budget, the amount allocated for addressing issues related to failed states and governance constituted just 11.1% of the budget for the Global War on Terror supplemental funding programs (Piazza 2008b). The non-military part of the Security Budget remains small as evidenced by the Obama administration's FY 2012 Request (Pemberton and Korb 2011).

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Table 1. Descriptive statistics and data sources

Variable	Observations	Mean	Std. Dev.	Data Sources
Other Groups	59325	1.50	3.30	Jones and Libicki (2008)
ln(*GDP/POP*)	54500	8.33	1.28	Heston et al. (2011)
ln(*POP*)	59325	9.39	1.49	Heston et al. (2011)
ln(*open*)	54500	4.01	0.69	Heston et al. (2011)
Gov. Exp.	54500	0.11	0.07	Heston et al. (2011)
Military Exp.	25871	2.90	4.17	World Bank (2010)
Conflict	59325	0.21	0.40	Marshall et al. (2009)
Conflict1	59293	0.98	2.35	Marshall et al. (2009)
Conflict2	59325	0.63	1.36	Marshall et al. (2009)
Polity	52818	1.47	7.30	Marshall and Jaggers (2009)
Ethnic Frac.	58275	0.46	0.26	Alesina et al. (2003)
Religious Frac.	58800	0.41	0.23	Alesina et al. (2003)
ln(*elevation*)	48825	6.11	0.91	Gallup et al. (1999a); Gallup et al. (1999b)
Tropics	48825	0.48	0.47	Gallup et al. (1999a); Gallup et al. (1999b)
Landlocked	46725	0.12	0.33	Gallup et al. (1999a); Gallup et al. (1999b)
POP Density	48825	0.09	0.13	Gallup et al. (1999a); Gallup et al. (1999b); Heston et al. (2011)
EA & Pac.	59325	0.11	0.31	World Bank (2010)
Eur. & CA	59325	0.28	0.45	World Bank (2010)
LA & Carib.	59325	0.18	0.38	World Bank (2010)
ME & N. Afr.	59325	0.13	0.34	World Bank (2010)
N. America	59325	0.02	0.13	World Bank (2010)
S. Asia	59325	0.06	0.24	World Bank (2010)
S.S. Africa	59325	0.21	0.41	World Bank (2010)
Distance	39776	70.43	43.49	Mayer and Zignago (2011); RAND (2012)
Distance sqrd.	39776	6851.16	7322.49	Mayer and Zignago (2011); RAND (2012)

Table 2. Conditional Logit Regressions of Terrorist Group Location Choice

Variable	Model 1	Model 2	Model 3	Model 4
ln(*GDP/POP*)	0.216***	0.065	0.304**	0.312**
	(0.077)	(0.085)	(0.128)	(0.138)
ln(*POP*)	0.389***	0.181***	0.180***	0.212***
	(0.042)	(0.049)	(0.069)	(0.075)
ln(*open*)	–0.005	0.004	–0.042	0.030
	(0.095)	(0.100)	(0.138)	(0.164)
Gov. Exp.	0.768	–0.556	1.047	1.757
	(0.808)	(0.902)	(1.124)	(1.239)
Polity	0.020**	0.0003	–0.028**	–0.034**
	(0.009)	(0.010)	(0.014)	(0.015)
Ethnic Frac.	0.163	0.290	–0.130	–0.245
	(0.253)	(0.279)	(0.382)	(0.397)
Religious Frac.	–0.045	–0.181	–0.198	–0.337
	(0.244)	(0.248)	(0.367)	(0.386)
EA & Pac.	–1.220***	–0.299	1.718**	3.017***
	(0.213)	(0.265)	(0.834)	(0.775)
Eur. & CA	–0.422**	0.178	–0.442	–0.636**
	(0.167)	(0.181)	(0.281)	(0.304)
LA & Carib.	–0.698***	–0.037	4.900***	1.876**
	(0.183)	(0.248)	(0.976)	(0.802)
N. America	–0.973***	–0.215	4.391***	3.047***
	(0.305)	(0.332)	(0.800)	(0.827)
S. Asia	–0.355	–0.955***	0.184	0.987
	(0.260)	(0.292)	(0.604)	(0.662)
S.S. Africa	–1.078***	–0.572*	2.398***	2.442***
	(0.287)	(0.318)	(0.619)	(0.686)
POP Density	0.778**	1.598***	–0.399	–0.463
	(0.366)	(0.456)	(0.871)	(0.925)
ln(*elevation*)		0.284***	0.405***	0.506***
		(0.075)	(0.105)	(0.114)
Landlocked		0.021	–0.100	–0.238
		(0.186)	(0.251)	(0.271)
Tropics		–0.419*	–1.468***	–1.507***
		(0.223)	(0.424)	(0.455)
Other Groups		0.111***	0.133***	0.130***
		(0.010)	(0.019)	(0.019)
Conflict	0.429***	0.021	0.046	0.069
	(0.103)	(0.114)	(0.156)	(0.164)

Distance			–0.163***	–0.236***
			(0.008)	(0.022)
Distance sqrd.				0.001***
				(0.0001)
Distance_Open				–0.004
				(0.005)
N	40358	39218	25952	25952

Notes: Significance levels: *** is <.01, ** is <.05, and * is <.10. Standard errors are in parentheses.

Table 3. Conditional Logit Regressions of Terrorist Group Location Choice

Variable	**Before 1990**			**After 1990**		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
ln(*GDP/POP*)	0.175	–0.035	0.347*	0.251**	0.174	0.624***
	(0.120)	(0.147)	(0.193)	(0.109)	(0.114)	(0.240)
ln(*POP*)	0.265***	0.198***	0.223**	0.507***	0.228***	0.296*
	(0.060)	(0.072)	(0.095)	(0.061)	(0.078)	(0.160)
ln(*open*)	–0.223*	0.256*	0.025	0.140	0.116	0.846**
	(0.129)	(0.150)	(0.205)	(0.155)	(0.168)	(0.368)
Gov. Exp.	0.976	–0.351	1.082	–0.665	–2.941*	–0.425
	(0.955)	(1.173)	(1.438)	(1.506)	(1.669)	(2.892)
Polity	0.015	0.001	–0.016	0.020	–0.022	–0.125***
	(0.012)	(0.013)	(0.017)	(0.017)	(0.018)	(0.042)
Ethnic Frac.	–0.233	0.524	0.213	0.625*	0.822**	–0.386
	(0.371)	(0.423)	(0.523)	(0.361)	(0.399)	(0.746)
Religious Frac.	0.846**	–0.675*	–0.600	–1.050***	–1.038***	–1.548**
	(0.341)	(0.397)	(0.523)	(0.369)	(0.380)	(0.759)
EA & Pac.	–1.762***	0.416	4.073***	–0.758**	0.275	–0.420
	(0.319)	(0.406)	(0.884)	(0.315)	(0.405)	(1.851)
Eur. & CA	–0.739***	0.727**	–0.724*	0.032	0.526*	0.501
	(0.232)	(0.285)	(0.391)	(0.260)	(0.279)	(0.652)
LA & Carib.	–0.946***	1.031***	2.953***	–0.538*	0.446	–0.422
	(0.242)	(0.367)	(0.920)	(0.307)	(0.411)	(2.011)
N. America	–1.075***	0.488	2.706***	–1.282**	–0.281	3.914**
	(0.388)	(0.463)	(0.952)	(0.572)	(0.611)	(1.792)
S. Asia	–0.592	0.187	2.386***	0.022	–0.963**	–0.564
	(0.388)	(0.420)	(0.726)	(0.382)	(0.439)	(1.164)
S.S. Africa	–1.536***	0.361	2.645***	–0.518	0.124	3.651**
	(0.403)	(0.458)	(0.783)	(0.442)	(0.503)	(1.546)
POP Density	0.243	1.201	–1.278	0.734	1.959***	1.340
	(0.640)	(0.808)	(1.226)	(0.496)	(0.641)	(1.497)
ln(*elevation*)		0.077	0.350**		0.197	0.562**
		(0.105)	(0.147)		(0.123)	(0.245)
Landlocked		0.360	–0.184		0.180	–0.077
		(0.267)	(0.357)		(0.281)	(0.504)
Tropics		–0.679**	–1.391**		–0.678**	–1.840*
		(0.322)	(0.557)		(0.330)	(0.943)
Other Groups		0.300***	0.232***		0.113***	0.125***
		(0.023)	(0.030)		(0.016)	(0.037)
Conflict	0.392***	–0.190	0.183	0.307*	0.062	0.222

	(0.143)	(0.163)	(0.205)	(0.163)	(0.175)	(0.329)
Distance			–0.223***			–0.269***
			(0.025)			(0.045)
Distance sqrd.			0.001***			0.002***
			(0.0001)			(0.0002)
Distance_Open			0.001			–0.020**
			(0.006)			(0.009)
N	18313	17849	15823	22045	21369	10129

Notes: Significance levels: *** is <.01, ** is <.05, and * is <.10. Standard errors are in parentheses.

Table 4. Conditional Logit Regressions of Terrorist Group Location Choice: By Region

Variable	**EAP & SA**		**ECA**		**LAC & NA**		**MENA & SS. Afr.**	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
ln(*POP*)	0.563***	0.792	0.083	–0.218	0.083	0.471	0.313***	0.382**
	(0.205)	(0.548)	(0.166)	(0.349)	(0.216)	(0.477)	(0.115)	(0.158)
Religious Frac.	0.302	3.564	–1.033*	–1.783*	–1.669*	–2.874	–0.561	0.460
	(0.969)	(2.546)	(0.539)	(0.973)	(0.929)	(2.347)	(0.507)	(0.897)
Other Groups	0.054**	–0.008	0.244***	0.165***	0.492***	0.641***	0.243***	0.178***
	(0.021)	(0.059)	(0.030)	(0.051)	(0.062)	(0.164)	(0.038)	(0.052)
Conflict	–0.304	0.094	0.214	–0.923*	–0.761**	–1.241*	–0.070	0.499*
	(0.238)	(0.586)	(0.286)	(0.552)	(0.355)	(0.660)	(0.218)	(0.279)
Distance		–0.369***		–0.534***		–0.314***		–0.264***
		(0.122)		(0.080)		(0.088)		(0.063)
Distance sqrd.		0.002***		0.002***		0.002***		0.002***
		(0.0003)		(0.0004)		(0.0003)		(0.0004)
Distance_Open		–0.007		0.010		–0.036*		–0.001
		(0.025)		(0.016)		(0.020)		(0.013)
N	1532	717	3247	2031	2140	1640	3445	2926

Notes: Significance levels: *** is <.01, ** is <.05, and * is <.10. Standard errors are in parentheses. Models 1 and 2 correspond to Models 2 and 4 in Table 2, respectively, but without regional dummy variables. Only the variables of interest are shown to save space. EAP & SA denotes East Asia, Pacific and South Asia, ECA indicates Europe and Central Asia, LAC & CA stands for Latin America, Caribbean and North America, and MENA & SS. Afr. implies Middle East, North Africa and sub–Saharan Africa.

Table 5. Conditional Logit Regressions of Terrorist Group Location Choice: By Group Ideology

Variable	**Left Wing**			**Nationalist/Separatist**			**Religious and Right Wing**		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
ln(*POP*)	0.406***	0.136	0.329*	0.363***	0.071	–0.064	0.453***	0.341***	0.456***
	(0.082)	(0.100)	(0.179)	(0.067)	(0.081)	(0.123)	(0.076)	(0.088)	(0.131)
Religious Frac.	–1.570***	–2.062***	–1.549*	0.485	0.381	–0.109	1.098**	0.898*	1.109
	(0.439)	(0.495)	(0.867)	(0.412)	(0.409)	(0.601)	(0.471)	(0.480)	(0.773)
Eur. & CA	1.059***	1.546***	–1.244*	–0.784***	0.138	–0.347	–1.197***	–0.731**	–1.107*
	(0.388)	(0.398)	(0.699)	(0.262)	(0.310)	(0.494)	(0.314)	(0.337)	(0.594)
LA & Carib.	1.576***	2.466***	8.054***	–3.400***	–3.117***	–0.082	–2.045***	–1.159**	0.702
	(0.375)	(0.463)	(1.913)	(0.626)	(0.745)	(1.669)	(0.389)	(0.502)	(1.578)
N. America	1.391**	2.438***	9.732***	–1.364***	–0.454	2.918**	–2.557***	–1.912***	0.970
	(0.573)	(0.624)	(1.976)	(0.506)	(0.574)	(1.240)	(0.661)	(0.702)	(1.496)
S.S. Africa	0.883	1.869***	2.389	–1.441***	–1.423**	2.395*	–2.462***	–1.658***	1.339
	(0.553)	(0.611)	(1.713)	(0.503)	(0.640)	(1.340)	(0.520)	(0.578)	(1.152)
ln(*elevation*)		0.415***	0.929***		0.143	0.281		0.288*	0.394*
		(0.129)	(0.238)		(0.121)	(0.183)		(0.160)	(0.233)
Tropics		–0.407	–1.905*		0.224	–1.484		–0.802*	–1.946**
		(0.356)	(0.998)		(0.481)	(1.092)		(0.417)	(0.782)
Other Groups		0.202***	0.172***		0.121***	0.181***		0.061***	0.067*
		(0.025)	(0.047)		(0.015)	(0.032)		(0.018)	(0.034)
Conflict	0.192	–0.370*	–0.186	0.838***	0.410**	0.602**	0.086	–0.096	–0.123
	(0.196)	(0.220)	(0.331)	(0.168)	(0.189)	(0.279)	(0.188)	(0.200)	(0.293)
Distance			–0.402***			–0.204***			–0.150***
			(0.050)			(0.039)			(0.044)
Distance sqrd.			0.002***			0.001***			0.001***
			(0.0002)			(0.0001)			(0.0001)
N	15713	15333	11036	14876	14348	8491	9769	9537	6425

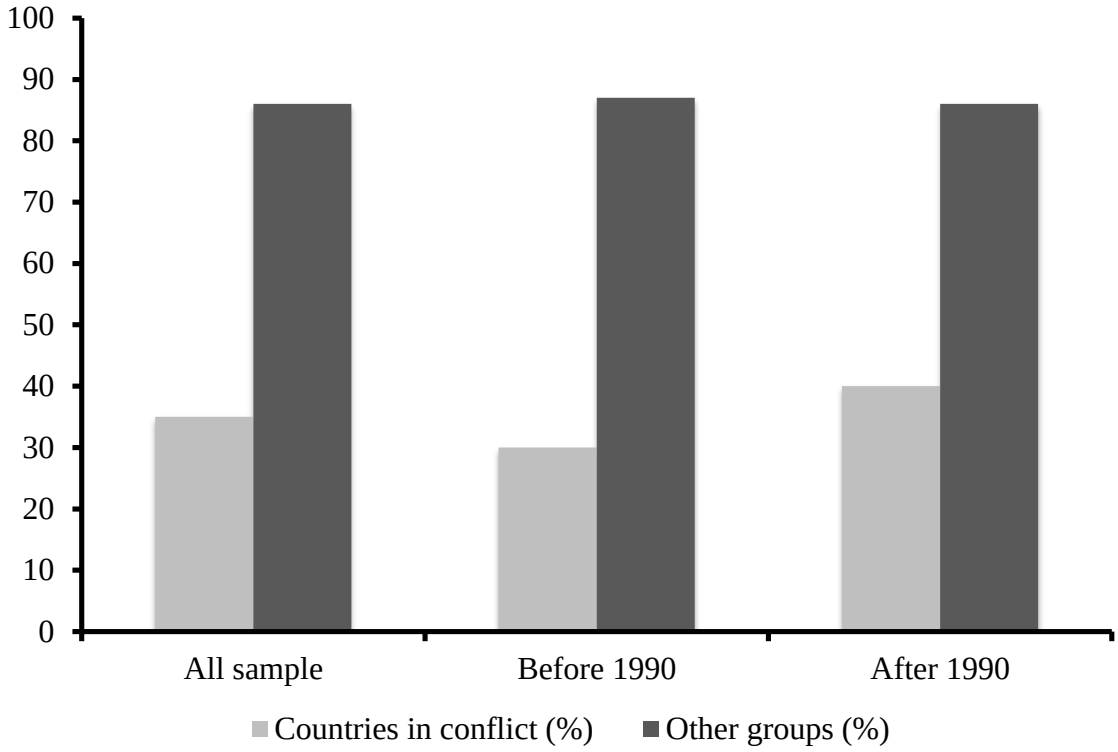
Notes: Significance levels: *** is <.01, ** is <.05, and * is <.10. Standard errors are in parentheses. Only the variables of interest are shown to save space. See Models 1–2 and 4 in Table 2 for the full specification of each model.

Table 6. Conditional Logit Regressions of Terrorist Group Location Choice: By Group Ideology

	Left Wing		**Nationalist/Separatist**		**Religious and Right Wing**	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Other Groups LW	0.512***	0.509***		0.149		0.233*
Other Groups Nat		0.003	0.176***	0.181***		–0.033
Other Groups Rel/RW		0.077		0.167	0.072**	0.308***
Conflict	–0.360	–0.373	0.534**	0.551**	–0.123	0.018
Distance	–0.221***	–0.220***	–0.146***	–0.146***	–0.144***	–0.143***
N	11036	11036	8491	8491	6425	6425

Notes: Significance levels: *** is <.01, ** is <.05, and * is <.10. Standard errors are suppressed. Only the variables of interest are shown to save space. See Model 3 in Table 2 for the full specification of each model.

Figure 1. Distribution of terrorist groups location choices based on the presence of conflicts and the other groups



Appendix A

Table A1. List of location (base) countries and regions

Location Country	Region	Location Country	Region
Afghanistan	South Asia	Lebanon	Middle East and North Africa
Algeria	Middle East and North Africa	Liberia	sub-Saharan Africa
Angola	sub-Saharan Africa	Libya	Middle East and North Africa
Argentina	Latin America and Caribbean	Lithuania	Europe and Central Asia
Armenia	Europe and Central Asia	Macedonia	Europe and Central Asia
Australia	East Asia and Pacific	Malaysia	East Asia and Pacific
Austria	Europe and Central Asia	Mali	sub-Saharan Africa
Bangladesh	South Asia	Mauritania	sub-Saharan Africa
Belgium	Europe and Central Asia	Mexico	Latin America and Caribbean
Bhutan	South Asia	Moldova	Europe and Central Asia
Bolivia	Latin America and Caribbean	Morocco	Middle East and North Africa
Brazil	Latin America and Caribbean	Mozambique	sub-Saharan Africa
Bulgaria	Europe and Central Asia	Namibia	sub-Saharan Africa
Cambodia	East Asia and Pacific	Nepal	South Asia
Cameroon	sub-Saharan Africa	Netherlands	Europe and Central Asia
Canada	North America	Nicaragua	Latin America and Caribbean
Chad	sub-Saharan Africa	Niger	sub-Saharan Africa
Chile	Latin America and Caribbean	Nigeria	sub-Saharan Africa
China	East Asia and Pacific	Pakistan	South Asia
Colombia	Latin America and Caribbean	Panama	Latin America and Caribbean
Congo	sub-Saharan Africa	Papua New Guinea	East Asia and Pacific
Costa Rica	Latin America and Caribbean	Peru	Latin America and Caribbean
Cote d'Ivoire	sub-Saharan Africa	Philippines	East Asia and Pacific
Cyprus	Europe and Central Asia	Poland	Europe and Central Asia
Democratic Republic of the Congo	sub-Saharan Africa	Portugal	Europe and Central Asia
Denmark	Europe and Central Asia	Puerto Rico	Latin America and Caribbean
Djibouti	Middle East and North Africa	Russia	Europe and Central Asia
Dominican Republic	Latin America and Caribbean	Saudi Arabia	Middle East and North Africa
Ecuador	Latin America and Caribbean	Serbia	Europe and Central Asia
Egypt	Middle East and North Africa	Sierra Leone	sub-Saharan Africa

El Salvador	Latin America and Caribbean	Singapore	East Asia and Pacific
Eritrea	sub-Saharan Africa	Somalia	sub-Saharan Africa
Estonia	Europe and Central Asia	South Africa	sub-Saharan Africa
Ethiopia	sub-Saharan Africa	Spain	Europe and Central Asia
France	Europe and Central Asia	Sri Lanka	South Asia
Georgia	Europe and Central Asia	Sudan	sub-Saharan Africa
Germany	Europe and Central Asia	Suriname	Latin America and Caribbean
Great Britain	Europe and Central Asia	Swaziland	sub-Saharan Africa
Greece	Europe and Central Asia	Sweden	Europe and Central Asia
Guatemala	Latin America and Caribbean	Switzerland	Europe and Central Asia
Haiti	Latin America and Caribbean	Syria	Middle East and North Africa
Honduras	Latin America and Caribbean	Taiwan	East Asia and Pacific*
India	South Asia	Tajikistan	Europe and Central Asia
Indonesia	East Asia and Pacific	Tanzania	sub-Saharan Africa
Iran	Middle East and North Africa	Thailand	East Asia and Pacific
Iraq	Middle East and North Africa	Tunisia	Middle East and North Africa
Ireland	Europe and Central Asia	Turkey	Europe and Central Asia
Israel	Middle East and North Africa	Uganda	sub-Saharan Africa
Italy	Europe and Central Asia	Ukraine	Europe and Central Asia
Japan	East Asia and Pacific	United States	North America
Jordan	Middle East and North Africa	Uruguay	Latin America and Caribbean
Kazakhstan	Europe and Central Asia	Uzbekistan	Europe and Central Asia
Kenya	sub-Saharan Africa	Venezuela	Latin America and Caribbean
Kuwait	Middle East and North Africa	Vietnam	East Asia and Pacific
Kyrgyzstan	Europe and Central Asia	Yemen	Middle East and North Africa
Laos	East Asia and Pacific	Zimbabwe	sub-Saharan Africa
Latvia	Europe and Central Asia		

Notes: Regions are based on World Bank' (2010) classification. * The World Bank does not provide information for Taiwan. We recorded Taiwan in the East Asia and Pacific.

Table A2. Distribution of location (base) countries and terrorist groups by regions

Region	**Base countries**		**Terrorist groups**	
	Number	*Percent*	*Number*	*Percent*
East Asia and Pacific	13	11.5	50	7.2
Europe and Central Asia	32	28.3	224	32.0
Latin America and Caribbean	20	17.7	98	14.0
Middle East and North Africa	15	13.3	147	21.0
North America	2	1.8	25	3.6
South Asia	7	6.2	101	14.5
sub-Saharan Africa	24	21.2	54	7.7
Total	113	100	699*	100

Notes: * Our sample consists of 525 terrorist groups. Since some groups have multiple bases of operation, the total shows 699.