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Economic Sanctions and the Dynamics of Terrorist Campaigns

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Abstract: Although states rarely use economic sanctions specifically to combat transnational terrorism, potential targets of sanctions often face terrorist campaigns within their territory. States may avoid using sanctions against states with terrorists for fear of weakening target states excessively, thereby indirectly strengthening terrorist groups. However, this argument has not been subjected to rigorous empirical testing. This study presents a theoretical and empirical examination that explores how the imposition of sanctions affects the dynamics of ongoing terrorist campaigns in the targeted state. We argue that comprehensive sanctions that are imposed on targets that are fighting transnational terrorists within their territory should make these groups more resistant to collapse. However, similar sanctions imposed against states that serve as 'home bases' or sanctuaries to terrorists should shorten the lifespan of these groups. Our empirical analysis yields results largely supportive of these theoretical expectations.

Sanctions are commonly used for reasons unrelated to transnational terrorism; yet, decisions on sanction imposition can be intertwined with efforts to fight terrorism. Consider the contradiction between the sanction policy and counterterrorism objectives in the situation the U.S. faced over the International Criminal Court (ICC). In July 2002, over one hundred states participated in the founding of the ICC. The goal of the court was to provide an international tribunal to prosecute individuals that committed crimes against humanity, genocide, or other crimes during war. Although agreeing in principle with the creation of the tribunal, the U.S. refused to ratify the treaty, arguing that American soldiers serving oversees might be accused of war crimes and become subject to arrest. In protest, Congress also passed the American Servicemembers' Protection Act, which threatened to suspend military aid to any country that was party to the International Criminal Court. Numerous states responded by signing agreements barring them from turning over U.S. soldiers to the ICC. Yet, several states faced punitive sanctions, including many key U.S. allies that were fighting alongside American forces in the war on terror. The U.S. therefore faced a suboptimal outcome: the threat of sanctions was instrumental to preventing states from cooperating with the ICC, but sanction imposition could undermine these states' efforts against transnational terrorist groups.

Several studies suggest that punitive actions, such as sanctions in the aforementioned example, can harm the ability of states to pursue counterterrorism measures because such actions weaken the state's internal capacity (Carter 2014; Piazza 2008; Schultz 2010). However, we presently do not have any indication to what extent sanctions harm the ability of target states to fight transnational terrorists.[1] We further have no indication of how particular types of sanctions influence terrorists' ability to persist and actively pursue their objectives. This raises an important theoretical and policy issue: states may refuse to impose sanctions to avoid worsening transnational terrorist campaigns, but we presently do not know if sanctions really make these campaigns any worse.

This study investigates how sanctions affect the survival of transnational terrorist organizations. We argue that the effect of sanctions is contingent on the relationship between the terrorists and the state targeted by sanctions. We argue that comprehensive sanctions that are imposed on targets that are fighting transnational terrorists within their territory should make these groups more resistant to collapse. However, similar sanctions imposed against states that serve as 'home bases' or sanctuaries to terrorists should shorten the lifespan of these groups. Our empirical analysis yields results largely supportive of these theoretical expectations. We demonstrate that more costly sanctions against targets that are fighting transnational terrorists lengthen terrorist campaigns, while such comprehensive sanction measures used against targets that are either hosting or sponsoring terrorists accelerate the demise of these groups.

[1] We refer to sanctioned states as 'targets,' and states where transnational terrorist groups stage their attacks as 'attack locations.'

We develop this argument and the empirical evidence in several steps. First, we present a brief literature review examining economic sanctions and the link between terrorism and state capacity. We then present our theoretical framework that bridges the two bodies of literature and state testable hypotheses linking different types of economic sanctions and the duration of terrorist campaigns. The following section reports results of our empirical analyses, which rely on data from the updated version of the Threat and Imposition of Sanctions (TIES) dataset and from the Jones and Libicki dataset on terrorist campaigns.[2] Finally, we discuss our findings and conclude by highlighting the role that exogenous economic shocks in the form of various sanctions can play in the conflict between governments and terrorists, and policy implications of our findings that emphasize unintended consequences of sanction policies.

Sanctions, Terrorist Groups, and Unintended Consequences

Much of the early conventional wisdom characterized economic sanctions as an ineffective tool used to engage in coercive bargaining. Sanctions were seen as a policy that could impose some cost on targets unless the targeted states met the demands of a particular sender. Empirical studies using the Hufbauer, Schott, and Elliott (HSE) data consistently demonstrated that sanctions failed to accomplish their objectives, and often ended up doing more harm to the sender's interests than good (Drury 1998; Morgan & Schwebach 1997; Pape 1999). However, numerous theoretical and empirical studies now demonstrate that the previous findings largely resulted from selection bias (Drezner 2003; Morgan & Miers 1999; Smith 1995). The general conclusion was that if targets engaged in offensive behavior, they likely already expected that sanctions would be imposed, and chose to adopt the behavior anyway despite its costs. However, the threat of sanctions could be effective in preventing targets from adopting these offensive behaviors prior to sanction imposition. This logic and several empirical studies now indicate that sanctions, and particularly the threat of sanctions, may be a far more effective tool of coercion than previously believed (Allen 2005; Bapat & Morgan 2009; Early 2011; McLean & Whang 2010).

These new results demonstrating that sanctions can coerce effectively under certain conditions have led some scholars to warn that the imposition of sanctions may also produce considerable political instability within target states (McGillivray & Stam 2004; Marinov 2005). This pressure may be a positive result from the sender's perspective due to its coercive power: i.e., the threat of instability might compel target states' leaders to alter their behaviors, or acquiesce to the threat of sanctions. However, the literature on political rebellion demonstrates that increasing the political instability of a state may increase the relative power of opposition groups, including terrorist organizations (Collier & Hoeffler 2005; Fearon & Laitin 2003; Lake & Rothchild 1998; Piazza 1998). Empirically, the literature on terrorism demonstrates that these groups benefit from political instability and general economic weakness (Enders & Hoover 2012; Justino 2009; Weinstein 2007). These observations suggest that terrorists within the target state stand to benefit from sanction imposition.

[2] See Morgan et al. (2013) and Jones & Libicki (2008).

Choi and Luo (2013) show that this is indeed the case: sanctions push impoverished populations towards terrorist responses because the increase in hardship mobilizes those who are already in the most vulnerable position to lash out against foreigners. This unintended consequence may require senders to reconsider using sanctions against target states, particularly if the terrorists appear more threatening than the target government. For example, although the U.S. expressed concern with Yemen's human rights record for much of the war on terror, the U.S. routinely refused to impose sanctions against the country, citing the need to prevent al Qaeda affiliated terrorists or Iranian supported groups from gaining a foothold in the territory.[3] Similarly, while India has numerous disputes with Pakistan, it clearly seems to prefer maintaining relations with the current Pakistani government as opposed to strengthening militant groups such as the Taliban. We therefore see the critical dilemma: senders may seek to use sanctions to compel targets into altering their behavior, but fear that punishing targets could result in their destabilization, which in turn would strengthen the power of transnational terrorist groups, which are usually more hostile and threatening than target governments from the senders' perspective.

Although this argument is accepted in policymaking circles, let us consider just how damaging sanctions are to target states' counterterrorism efforts. At the baseline, we know that most terrorist groups do not survive for extended periods and fail to accomplish their objectives. Rapoport (1992) reported that nearly 90% of terrorist organizations do not reach their first anniversary. Of the few that reached this milestone, half did not last a decade. Others have noted that Rapoport's numbers are overly pessimistic (Vittori 2009)[4], but the fact still remains that most terrorist organizations fail early on, while only a handful groups such as *FARC* (*Fuerzas Armadas Revolucionarias de Colombia)* and the ETA (*Euskadi Ta Askatasuna*) last for generations. Studies by Bapat (2005), Cronin (2009) and Jones & Libicki (2008) demonstrate that the majority of groups do not survive for longer than ten years. Additionally, recent microlevel studies demonstrate that terrorist groups often suffer from considerable internal dysfunction (Forest et al 2006; Shapiro 2013).

The observation that terrorists are unlikely to survive and accomplish their objectives raises the question: are sanctions really all that damaging? In other words, is it the case that imposing sanctions will enable these very weak organizations to prevail over target states? If the conclusion is that targets are unlikely to suffer any noticeable destabilization, and terrorists are unlikely to strengthen to a significant extent, there is no justification to avoid imposing sanctions on target states that face transnational terrorists in their territory. Moreover, one could argue that sanctions may well be necessary to alter target policies that exacerbate the problem of terrorism. This raises two additional questions. First, under what conditions can senders impose

[3] Recent events indicate that this strategy has now proven unsuccessful, as President Saleh was forced to resign during the Arab Spring and the Zaydi Houthi Rebellion assumed control of Sanaa in September 2014.
[4] Vittori found that almost half of terrorist campaigns in her sample lasted at least four years.

sanctions against targets with terrorists in their territory? Second, are there specific types of sanctions that may be 'safer' than others and less likely to produce the unintended consequence of strengthening terrorists?

The Effect of Sanctions on Terrorist Group Survival

Consider two states: a sender and a target, along with a transnational terrorist group operating in the target's territory. The sender and the target engage in some forms of economic exchanges, which may include trade, investment, and possibly transfers of foreign aid. These economic gains provide the target government with the resources it needs to provide public goods and pay its military and police forces. These resources therefore support the target's ability to keep terrorist groups at bay. We can further assume that the resources available to the target government are maximized if it maintains free economic exchanges with the sender. However, if the sender chooses to threaten or impose sanctions against the target for political reasons, the sanctions introduce market imperfections that create barriers to commerce between individuals and companies within the sender and the target (e.g., Morgan and Schwebach 1997; McLean and Whang 2010). For example, if a sender passes a law that fines individuals $1,000 per hour if they visit a target country, this may dissuade the sender's citizens from touring the target or entering into contracts with the target's firm. Other sanctions, such as cuts in foreign aid or the imposition of blockades, impose costs more directly using the government's resources.

Theoretically, increasing the cost of economic transactions indirectly or reducing inflows of capital directly should weaken the target's economy. The amount of weakening is largely a function of the type of sanction (blockades are likely more costly than asset freezes) and a sender's level of enforcement. By reducing the gains from free commerce between itself and the target, the sender reduces the resource pool available to the target. This loss in resources may force targets to make politically difficult tradeoffs. For example, with fewer resources, a target state might have to choose between repairing roads and policing them. The target's population likely prefers that their government engage in both activities, but the target will need to make a choice if it loses considerable resources. Sanctioners often hope that the population of target states will respond to these costs by pressuring their leaders into compliance with the senders' demands. In the absence of a terrorist group, the political pressure caused by the reduction in resources and subsequent tradeoffs in government spending should encourage targets to comply with the sender's demands. However, with a terrorist group, the loss of economic resources may create the unintended consequence of harming the target's counterterrorism capabilities. Targets may therefore gradually weaken relative to the terrorists as sanctions begin to take effect. The economic shocks created by particularly damaging or long lasting sanctions may undermine the ability of target states to disarm their transnational terrorist challengers. Theoretically, this suggests that if a state that is fighting terrorists faces sanctions, it will be less able to suppress the group, and the campaign is likely to last longer.

To illustrate, consider the case of the sanctions imposed by the U.S. during the Carter Administration on Nicaragua. In the early 1970s, the Nicaraguan government headed by General Anastasio Somoza faced a

nascent terrorist campaign led by the burgeoning Frente Sandinista de Liberación Nacional (FSLN).[5] This group began conducting terrorist activities against the regime to protest corruption and Somoza's politically motivated distribution of relief monies from the Managua earthquake of 1972. Somoza's government quickly employed widespread torture in its effort to suppress the group. Although prior U.S. administrations these abuses due to Somoza's anti-communist stance, President Carter pledged during his campaign to cease American support for states that engaged in serial human rights abuses. Carter quickly fulfilled this campaign promise by suspending military aid to Nicaragua in June of 1977. A month later, Carter announced export restrictions on police equipment to Nicaragua. These cost of these sanctions amounted to approximately 1% of Nicaragua's total GNP.[6] Both actions were specifically aimed at weakening the capacity of Somoza to abuse his population through his campaign against the FSLN. However, according to Schoultz (1981), Carter's sanctions galvanized opposition to the Somoza regime, particularly given that Somoza's repressive apparatus was losing support from the U.S.[7] This analysis suggests that the export restriction on police and military equipment to Nicaragua undermined Somoza's efforts to suppress the nascent FSLN, allowed them to transition from terrorists to a full blown guerrilla insurgency, and ultimately contributed to the collapse of the Somoza regime. In this case, Carter's sanctions against Nicaragua clearly undermined the U.S. goal of containing Communist subversives in the country. These sanctions were seen as so counterproductive that the Reagan Administration quickly reversed them upon assuming office in 1981. In announcing the suspension of Carter's human rights sanctions, new Secretary of State Alexander Haig clearly stated, "international terrorism will take the place of human rights in our concern because it is the ultimate abuse of human rights.[8]"

We can identify several variables that make this general prediction more specific. First, we would not expect weaker sanctions, such as travel bans, to affect the duration of terrorist campaigns. Instead, we argue that more comprehensive measures, such as embargoes and blockades, are more likely to exhibit some effect on the duration of terrorist campaigns. Second, target states' counterterrorism efforts are likely to become enhanced by resources gained from senders' exports. However, if states in the international system restrict their exports to targets, this undermines the ability of these states to augment their fight, and may undermine its effectiveness. This is particularly true of weaker states that lack the internal economic base to produce more sophisticated technology. Regardless of the type, the effects of sanctions are likely to grow over time, particularly if the group begins to gain traction and/or achieve tactical successes.

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[5] Although the FSLN ultimately defeated Somoza in 1979 as a guerrilla movement, its origins indicate that it began as a terrorist movement, and is identified as such by both the Global Terrorism Data and the RAND Database of Worldwide Terrorism Incidents.

[6] According to calculations in Gary C. Hufbauer, Jeffrey J. Schott, and Kimberly A. Elliot. 1985. *Economic Sanctions Reconsidered: History and Current Policy.* Institute for International Economics. Washington DC, p. 570.

[7] Lars Schoultz. 1981. *Human Rights and United States Policy Toward Latin America.* Princeton: Princeton University Press, p. 363; Hufbauer et al 1985, p. 571

[8] Introductory Press Conference, 28 January 1981.

Hypothesis 1. *Comprehensive sanctions (embargoes and blockades) against states that are fighting terrorists make the collapse of these groups less likely.*

Hypothesis 2. *High cost sanctions against states that are fighting terrorists make the collapse of these groups less likely.*

Hypothesis 3. *Export restrictions against states that are fighting terrorists make the collapse of these groups less likely.*

The logic of Hypotheses 1-3 is that comprehensive and costly sanctions that undermine exports to the target state undermine effective counterterrorism by weakening the target's capacity. However, let us consider an alternative relationship between the target state and the terrorists. In our first scenario, the target of sanctions is also fighting transnational terrorists in its territory. Let us now assume that the target of sanctions has a more cooperative relationship with the terrorists and shares the group's foreign policy goals. In this case, the target may allow the group to use its territory to stage attacks against it rivals, or may provide the group with direct support or sponsorship. These activities often make terrorist organizations more violent and more resistant to collapse (Byman 2005; Salehyan 2009; Weinstein 2007). Foreign support therefore increases the power of terrorist groups. However, if sanctions are powerful enough to disrupt counterterrorist activities, it stands to reason that sanctions may also disrupt the ability of state supporters to continue assisting terrorists. Therefore, while the economic pain of sanctions may improve survival chances of terrorist groups when sanctions target states that are in conflict with terrorists, the economic pain of sanctions may reduce the survival likelihood of terrorist groups when sanctions are imposed against states that serve as terrorist home bases.

Let us examine this claim more closely. To be sure, the task of fighting terrorists is likely more difficult and expensive than the task of arming terrorists. Empirically, it is much cheaper for states to provide bomb making equipment, land for training, intelligence, or even financial resources than it is to finance a police/military force with sufficient intelligence capabilities to engage in effective counterterrorism. Since active support for terrorists may not require extensive resources, and the costs of passive support are paid by individuals as opposed to the target state, sanctions may not be as effective at compelling targets to clamp down on support for terrorists. However, while sanctions may not stop foreign support for transnational terrorists outright, sanctions can raise the price of this activity over time. In the case of active support, targets may rely on revenues generated by external trade to finance their support of terrorism. Therefore, if senders were to raise tariffs on goods from the home bases of terrorist organizations, the cost to these states of continuing to finance terrorism will increase over time. In effect, the rising cost relative to a constant gain may diminish the future value of supporting terrorism, which may encourage active supporters to abandon this activity. This is especially true if active supporters forecast future economic downturns. If sanctions raise the price of goods, active supporters may be unable to finance multiple objectives. This may push active supporters to make choices such as providing private goods for government allies or maintaining support for terrorists. If this is the case, we would expect that over time sanctions against terrorist organizations' home bases will weaken these groups and accelerate their collapse. Sanctions may create similar pressures on passive

support over time. The market imperfection introduced by sanctions may raise the prices of goods and services, thereby leaving fewer resources for civilians to aid terrorist operations from within the territories of passive supporters. Individuals may therefore lose the disposable income they have to provide charitable contributions to terrorists, which in the aggregate may weaken the group's capabilities.

The damage created by sanctions may therefore lead to several possible adverse effects on terrorist groups. First, the damage may make the support that these groups receive less efficient. These inefficiencies may leave the group vulnerable to collapse by weakening its capabilities and undermining its ability to sustain collective action. Second, the loss of revenue from sanctions may make the more vulnerable populations in a home base poorer, thereby making these individuals less likely to provide assistance to terrorists. Third, the economic damage created by sanctions may induce the governments of target states to strike deals with sending states. Targets may offer to disarm their terrorists in exchange for sanctions relief. For example, the Abu Nidal Organization was expelled by Saddam Hussein's Iraq in 1983, Hafez al Assad's Syria in 1987, and Muammar Gaddafi's Libya in 1999. In each case, the home bases took this action to gain relief from international sanctions. Though sanctions did not immediately compel these states to shut down Abu Nidal, the expulsion of the group became a valuable bargaining chip for each of these home bases.

In sum, this suggests that if the effect of sanctions is strong enough to harm counterterrorism efforts, sanctions may also be damaging enough to compel active and passive supporters into abandoning support for their terrorist groups. We expect comprehensive sanctions to be the most effective in compelling home bases to disarm their terrorists. However, unlike terrorist targets (or attack locations), home bases are more likely to be affected by import restrictions that limit their ability to sell their goods on the world market, thereby generating revenues that can be used to support terrorist groups.

Hypothesis 4. *Comprehensive sanctions (embargoes and blockades) against home bases of terrorists make the collapse of these groups more likely.*

Hypothesis 5. *High cost sanctions against states that are fighting terrorists make the collapse of these groups more likely.*

Hypothesis 6. *Import restrictions against home bases of terrorists make the collapse of these groups more likely.*

Testing the Hypotheses: Data and Method

To test the hypotheses formulated in the previous section, we create a dataset that combines information from two primary sources: the updated TIES dataset and Jones & Libicki's (2008) data on terrorist groups. The TIES dataset provides information on the time frame of each sanction episode, as well as various characteristics of sanctions: the type of imposed sanctions, specific measures that were utilized against the sanctioned state, and the scope of sanctions. The sanction episodes included in the TIES dataset were initiated between 1945-2005. While the total number of observations in TIES is 1412, sanctions were in fact imposed in 845 cases. We identify comprehensive sanctions as those that can significantly contribute to a weakening of the target's capabilities. These include embargoes (partial or total) and blockades. We also create an alternative measure for comprehensive sanctions, which gauges whether the target experienced

major or severe sanction costs. In addition, we create measures to capture import and export restrictions. We drop episodes of threatened sanctions that were never imposed due to either the target's decision to concede or the sender's reluctance to follow through on its threat, because our theoretical argument suggests that sanctions affect the survival of terrorist groups through costs generated by the implementation of sanctions. The Jones and Libicki dataset contains variables that identify terrorist groups and countries, in which the groups operate, the years of operation, the type of each group and its main objective, and the manner in which the group ended its existence. The number of groups, for which we have this information, is 648, and their operation years range from 1866 to 2006. After eliminating domestic groups, we are left with a list of 209 transnational campaigns, with the operation period between 1922 and 2006, which means that our unit of analysis is group-year. A significant number of these transnational campaigns – 150 – ended during the period under study, but only 35 collapsed because of police or military actions taken by the government.

[Figure 1 about here]

Note that our analysis focuses on terrorist groups that operate in more than one country at the same time. Also, not all surviving groups are active until the last year of their terrorist campaigns. Therefore, we modified the Jones and Libicki dataset using information from the Global Terrorism Database (GTD) and the Terrorist Organization Profiles (TOPs).[9] We begin by dropping all groups that are purely domestic. To do this, we first coded attack locations for each group, as well as countries that serve as home bases. If a group conducted attacks only in the country that served as its home base, such a group is a domestic group (e.g., Liberation Tigers of Tamil Eelam, and Laskar Jihad) and hence is dropped from the dataset; otherwise, it is considered a transnational group and is included in the data.[10] Second, the year of the last attack recorded in the GTD is treated as the final year of the terrorist campaign. Third, for transnational groups with multiple attack locations and/or home bases, we needed to choose one country in each set in order to construct control variables for country-specific determinants of terrorist groups' survival. Based on previous work demonstrating that transnational terrorists often prefer to base within weaker state environments (Bapat 2007; Krieger & Meierrieks 2011 Piazza 2008), we assume that a group's ability to continue carrying out attacks is the greatest in the weakest (in terms of its capabilities) country. We identify the weakest country by comparing GDP per capita of all attack locations for each terrorist group and choose the one with the lowest

[9] The GTD is available at http://apps.start.umd.edu/gtd/; the TOPs database is available at http://www.start.umd.edu/tops/.

[10] Sanchez-Cuenca and de la Calle (2009) discuss the problems that stem from the heterogeneity of the "international terrorism" category, which includes cases when terrorists and their victims are from different countries, as well as cases when terrorists carry out attacks outside their country borders or cooperate with terrorists from other countries (36). Our conceptualization of transnational terrorism avoids this heterogeneity by focusing only on cases when home bases and location attacks are different countries, which allows for a more meaningful analysis of determinants of these groups' survival.

value.[11] We repeat the same coding procedure for home bases to choose the weakest home base, since the weakest states should be least successful in their counterterrorist efforts. This procedure also helps us eliminate most of the cases, in which major powers are either attack locations or home bases of transnational groups. Major powers tend to be most successful in eliminating terrorist threats within their borders, while being targets of frequent sanctions episodes.[12] For instance, the U.S. has been sanctioned more frequently than any other country -- i.e., 59 times, according to the TIES dataset, which represents more than 7% of all sanction impositions.[13] Subsequently, we treat the weakest country as the main country, for which all country-specific variables are obtained. As a result, we have two sets of control variables: one for the weakest attack location, and the other for the weakest home base.

The objective of this paper is to evaluate factors determining the survival of transnational terrorist groups. Since Figure 1 suggests that terrorist campaigns that collapse tend to do so quite quickly, we test our hypotheses using the Weibull survival model. Each model clusters standard errors by country. To estimate a survival model, we rely on two variables. *Group collapse* is coded as 1 in the year when a group is eliminated through the use of military or police force, and 0 otherwise. We also create a count variable (*Group time)* that counts the number of years since the beginning of the group's life cycle until a given year, before the group's terrorist campaign ends.

Explanatory Variables

To test the hypotheses that link group and government characteristics and the use of sanctions to the likelihood of terrorist groups' collapse, we rely on two sets of variables. First, Jones and Libicki's dataset also provides information on group size (*Group size*), coded as an ordinal variable ranging from 0 when a terrorist group has less than 100 members, to 3 when a group has more than 10,000 members. Previous research suggests that a larger group size increases terrorist groups' survival odds (Gutfraind 2009). We also count the number of attack location and home base states for each terrorist group to create the *Number of homebases/attack locations* variables: it is likely more difficult to defeat groups that operate in numerous locations than groups with a more restricted scale of operations. Values of *Number of attack locations* range from 1 to 10 – the maximum number of states corresponds to Black September, a clandestine wing of al-Fatah, which carried out a number of attacks in the Middle East, North Africa, Western Europe and North America. Values of *Number of homebases* range from 1 to 7: the groups with the highest number of home bases are Aum Shinrikyo and Islamic Movement of Uzbekistan. Finally, we control for the country's regime type

[11] We can use states' CINC (Composite Index of National Capability) scores for this coding procedure instead; our main findings remain unaffected.

[12] We can further drop all cases of groups whose hosts are major powers from the sample; our results are largely unaffected.

[13] Similarly, Japan was sanctioned 52 times (6.32% of all sanction impositions); the UK -- 25 (3.04%); Russia/USSR -- 23 (2.79%); France -- 22 (2.67%).

and its durability: political institutions may constrain governments' counterterrorism efforts to a varying extent, support different degrees of freedom of association and communication, as well as allow more (or less) independent and reliable mass media (Hoffman 2006; Li 2005). The *Regime type* variable is a country's polity2 score, ranging from -10 (strongly autocratic regimes) to 10 (strongly democratic regimes). The *Regime durability* variable (logged) gauges how durable the country's regime is: it is a count of the number of years since the last political transition. These two measures were extracted from the Polity IV dataset.

Third, to be able to test our hypotheses, we construct several variables that capture the use of sanctions and measure relevant characteristics of sanctions imposed on the country, in which one or more terrorist groups operate. The source of information on sanctions is the TIES dataset. First, we create variables to capture comprehensive sanctions. We rely on the *Sanction Type* variable of the TIES dataset to code the following two dummies: *Embargo* equals 1 if *Sanction Type* equals 1 or 2 (i.e., total or partial economic embargo) and 0 otherwise; and *Blockade* equals 1 if *Sanction Type* equals 5 (i.e., blockade) and 0 otherwise. We also create a dummy for sanctions that impose major or severe sanction costs on the target as an alternative measure of comprehensive sanctions (*High-cost sanctions*). When the *Target Economic Costs* variable of the TIES dataset takes the values of 2 or 3 (i.e., major or severe costs), the dummy takes the value of 1; otherwise, it equals 0. In addition, we create two sanction variables that represent import and export restrictions imposed by sanctioners against the target country: *Import sanction* equals 1 if *Sanction Type* equals 3 (i.e., import restriction) and 0 otherwise; *Export sanction* equals 1 if *Sanction Type* equals 4 (i.e., export restriction) and 0 otherwise. Note that the *Sanction Type* variable of the TIES dataset codes all applicable sanction types for each sanction episode; therefore, the resulting sanction dummies are not mutually exclusive.

Theoretically, the most comprehensive forms of economic sanctions are embargoes and blockades, given that both essentially shut down commerce between the sender and the target. Hypothesis 1 therefore predicts that these types of sanctions are more likely to prolong terrorist campaigns when directed at targets that are fighting terrorists. Hypothesis 2 predicts that high cost sanctions of all types, including those that do not fall into the embargo and blockade categories, are also likely to prolong the survival of transnational terrorists. The third hypothesis specifically examines how export restrictions affect the ability of target states to defeat transnational terrorist campaigns. Each of these hypotheses predicts that sanctions should prolong the survival of these groups.

Hypotheses 4-6 examine how these variables affect the survival of terrorists in their home bases/sanctuaries. These hypotheses predict that the independent variables should have the opposite effect on these campaigns. That is, while sanctions against targets that are fighting terrorists prolong these campaigns, sanctions against home bases shorten campaigns and encourage the demise of terrorist groups. Hypothesis 4 predicts that embargoes and blockades should accelerate the demise of terrorist groups when directed at their home bases, whereas Hypothesis 5 indicates that costlier sanctions should also shorten campaigns when directed at home bases. Hypothesis 6 indicates that import sanctions harm home bases.

Therefore, terrorist group survival should become more likely when export restrictions are imposed against countries attacked by terrorists, whereas terrorist groups should be more likely to collapse when sanctioners use import restrictions against terrorists' home base countries.

Finally, we utilize a number of control variables identified in previous studies as important determinants of terrorist campaign duration. The impact of economic sanctions on a state can be exacerbated or weakened by the presence of other factors influencing its vulnerability to economic sanctions. We include several such variables to capture relevant economic and geographical aspects of target states.

We create a measure of a state's trade dependency by calculating the percentage of trade over total GDP (*Trade dependence*). The higher the percentage of trade as a share of GDP, the more dependent the host state is on economic interactions with other states. Sanctions imposed against such states should be more economically damaging to the government and, thus, should positively affect the duration of terrorist campaigns. In addition, Blomberg et al. (2011) suggest that trade openness should be positively associated with terrorist groups' survival if trade flows provide opportunities for terrorists to import necessary supplies.

In addition to international economic linkages, the civil conflict literature has identified numerous factors influencing states' propensity to experience political violence. Many previous studies have linked larger populations to a higher risk of conflict (Fearon and Laitin 2003; Hegre and Sambanis 2004). Scarcity theories suggest that more populous states have more competition for scarce resources. Similarly, lower levels of GDP per capita and GDP growth are often linked with instability and increase in support for terrorist groups. Lower GDP per capita and GDP growth indicate lower levels of economic opportunities and greater poverty, and hence more significant motivations for violence. The source of data for these variables (*Trade dependence, Population, GDP pc,* and *GDP growth*) is the World Bank's World Development Indicators and we use a logarithmic transformation of the trade ratio, GDP per capita and population variables in our analyses.[14]

Geographical factors can also be linked to support for terrorist groups, as well as the government's ability to defeat them. Non-contiguous and mountainous territories tend to serve as safe shelters for terrorist groups and are more difficult for governments to subdue and control. We use two measures from Fearon and Laitin's (2003) study of states' vulnerability to domestic militant challenges: the logged share of the country's territory that is mountainous (*Nested mountains*), and a dummy variable (*Non-contiguous*) that takes the value of 1 if the country has a non-contiguous territory, and 0 otherwise.

Finally, to control for the effect of the Cold War rivalry between the U.S. and the USSR on terrorist group survival, we code a dummy variable. *Cold War* takes the value of 1 for the years between 1947 and 1991, and 0 otherwise.

For robustness checks reported in the appendix, we created additional control variables. First, to capture group characteristics, we use Jones and Libicki's classification of terrorist groups by type: religious,

[14] Our key results remain mostly unaffected if we do not control for these factors.

nationalist, left- or right-wing. For each characteristic, we create a dummy variable that takes the value of 1 when this characteristic is present, and 0 otherwise. Second, we code two dummy variables for the issue type involved in a particular sanction episode: these variables allow us to distinguish sanctions motivated by political considerations and sanctions driven by economic disagreements. The *Political issue* dummy equals 1 if the *Issue* variable of the TIES dataset takes the values of 1-11 (contain political influence, contain military behavior, destabilize regime, release citizens, property or material, solve territorial dispute, deny strategic materials, retaliate for alliance or alignment choice, improve human rights, end weapons/material proliferation, terminate support of non-state actors and deter or punish drug trafficking practices), and 0 otherwise. The *Economic issue* dummy equals 1 if the *Issue* variable of the TIES dataset takes the values of 12-14 (improve environmental policies, trade practices, implement economic reform), and 0 otherwise. Third, we create a dummy variable that indicates whether or not the terrorist group controls some territory (*Territorial control*).

Discussion of Empirical Results

Tables 1 presents the results related to sanctions against targets that are fighting terrorists. The results provide empirical support for Hypotheses 1-3. Each model demonstrates that sanctions are associated with an increase in the amount of time it takes for governments targeted by terrorist groups to terminate terrorist campaigns. The coefficients on the *Blockade* and *High-cost sanction* variables indicate that transnational terrorist campaigns face a lower hazard of ending when these groups fight against countries that are targets of comprehensive sanctions. The coefficient on another variable that represents comprehensive sanctions (i.e., *Embargo*) fails to reach statistical significance at conventional levels. This supports the argument that the counterterrorism efforts of target states are adversely affected by sanctions that weaken targets' economies and force these countries to spend less on counterterrorism programs. Regression results reported in the last column of Table 1 provide support for Hypothesis 3, which states that, when senders restrict exports to countries fighting transnational terrorist groups, targets' capabilities to combat terrorists are weakened as targets lose access to goods produced by senders' companies. Taken together, we see that comprehensive sanctions such as blockades, along with export sanctions, negatively affect the ability of targets to suppress their terrorist challengers.

[Table 1 about here]

We turn next to the tests of Hypotheses 4-6, reported in Table 2. We see substantial empirical support for the hypotheses in the models that capture campaign duration until the terrorist groups' forced end. Table 2 demonstrates that sanctions against home bases of transnational terrorists can increase the probability that these groups will meet a forced end. Specifically, the imposition of an embargo or high-cost sanctions significantly increases the likelihood of group collapse. One surprising finding presented in column 2 is that blockades all but eliminate the probability of a forced end, contrary to our expectations. These findings suggest that sanctions against home base states are likely to push terrorists to their demise, but some

excessive sanctions, such as blockades, may be counterproductive. Table 2 further demonstrates that import restrictions accelerate the demise of terrorist groups, which is supportive of Hypothesis 6. This suggests that sanctions that prevent home bases of terrorists from selling their goods and services on the open market may be more effective in compelling these states to stop supporting their terrorists.

[Table 2 about here]

Our control variables also yield a number of important findings. As expected, terrorist campaigns are less likely to collapse when group size increases, when governments of home bases and attack locations are more democratic. On the other hand, GDP per capita of home bases and attack locations appears to reduce the duration of terrorist campaigns, which suggests that affluent countries are more successful in fighting terrorism and are willing to serve as a home base for a terrorist organization. Terrorist campaigns also tend to end more quickly when attack locations have mountainous or non-contiguous territories, which is contrary to our expectation that such geographical characteristics would increase group survival. None of the remaining control variables yield statistically significant results.

The results paint a more nuanced picture regarding how sanctions affect terrorist campaigns. On the one hand, the analyses demonstrate empirical support for the argument that sanctions can harm states that are fighting terrorists, particularly if these sanctions are comprehensive, high cost, and involve restrictions on exports. On the other hand, the analysis demonstrates that comprehensive and high cost sanctions, as well as import restrictions, can force home bases to withdraw their support for terrorist campaigns, thereby accelerating the demise of transnational terrorists within their territory. Taken together, these findings support two policy recommendations. First, senders should avoid imposing comprehensive sanctions against countries targeted by transnational terrorist groups because such sanctions can be counterproductive in undermining states' ability to fight terrorists. Second, comprehensive sanctions may incentivize home base states to pull back their assistance to transnational terrorists, but excessively punitive sanctions, such as blockades, will not.

[Figures 2 and 3 about here]

Conclusions

We began with the observation that policymakers are often wary of imposing sanctions against targets that are combating terrorist organizations. The argument is that sanctions damage the target's economy, which in turn decreases the target's ability to fight terrorist groups. Sanctions may therefore be counterproductive to the sender's strategic interests, particularly if the target's domestic instability represents a security threat. Although this reasoning justifies states' refusal to impose sanctions, as in the case of overturned U.S. sanctions against Pakistan following Osama bin Laden's death, the argument has never been empirically tested. No previous study systematically examines the relative damage caused by sanctions to counterterrorism efforts.

This study represents an attempt to fill this void and examine when and if sanctions truly do undermine target states' ability to engage in counterterrorism. Our results yield several interesting conclusions. First, we find that sanctions imposed against target states that are fighting transnational terrorists prolong the survival of these groups. This finding suggests that sanctions are counterproductive when they impose significant economic damage on target states fighting transnational terrorists, or when sanctions restrict targets' access to exports from sender countries. However, our empirical analyses also show that comprehensive sanctions and import restrictions directed at home bases of terrorist organizations encourage these states to scale back their support for terrorist groups. In sum, these results indicate that sanctions harm states that are attack locations of transnational terrorists, but that sanctions are valuable if directed at transnational terrorists' home bases. To use an example, it may be the case that sanctions against Hamid Karzai's Afghanistan are counterproductive since this state is targeted by transnational terrorists, but sanctions against Pakistan may be valuable since Pakistan serves as the home base of these terrorist groups.

An interesting implication from this analysis is that if sanctions undermine states that are fighting terrorists, but assist in counterterrorism against state that are sheltering terrorists, targets may have an incentive to misrepresent the nature of their relationship to terrorist groups. To avoid sanctions, these states may seek to mask their relationship with terrorists and claim to be attack locations, rather than home bases. In this way, plausible deniability is essential to furthering the survival of terrorist campaigns.

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Figure 1: Distribution of Failed Terrorist Groups' Duration Periods from Start to Collapse

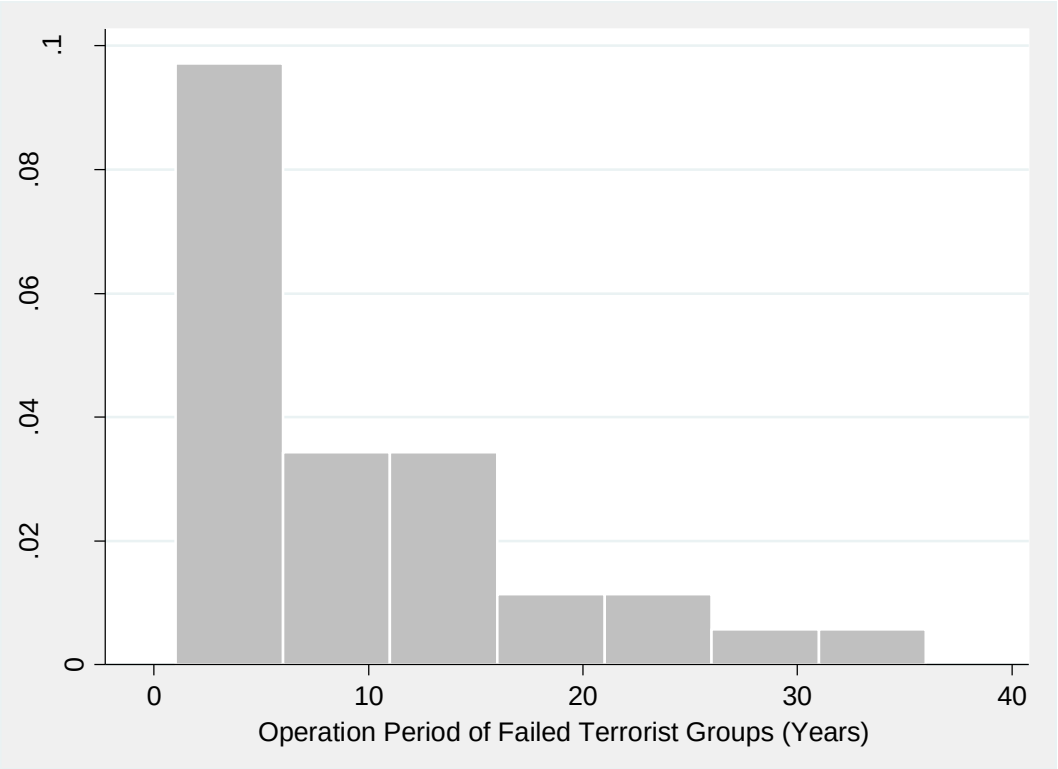
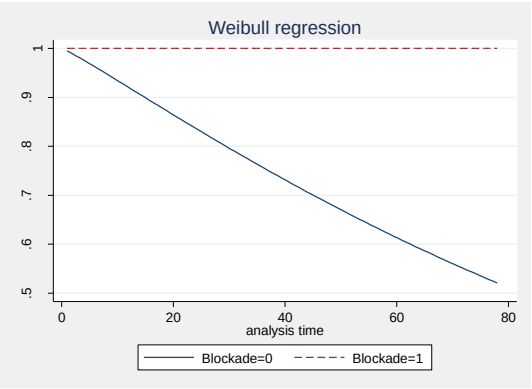
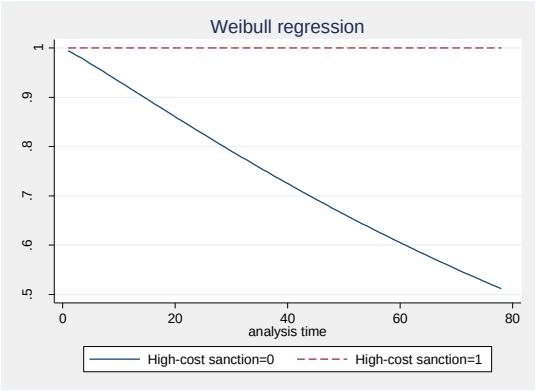
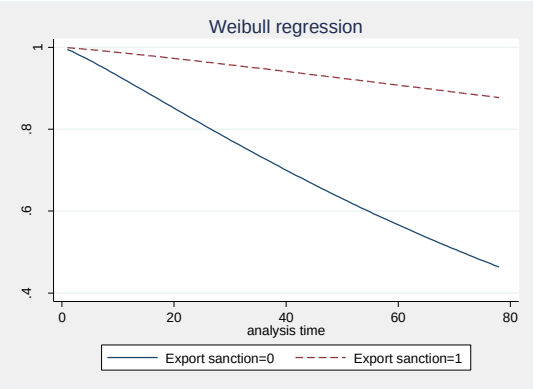


Figure 2: Survival Graphs for Different Sanction Types (Attack Location Controls)

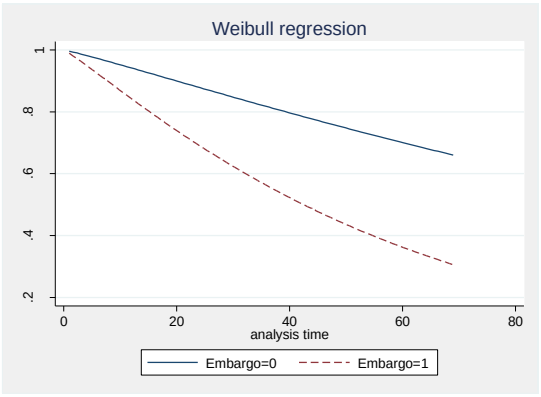


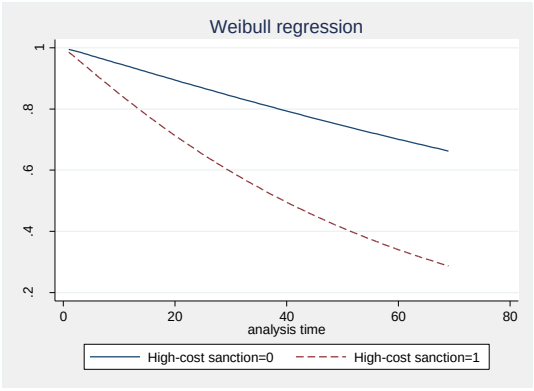


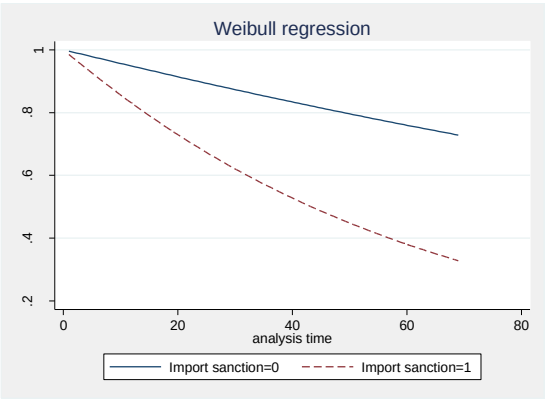


Note: Survival graphs are based on models M2-M4 reported in Table 1.

Figure 3: Survival Graphs for Different Sanction Types (Home Base Controls)







Note: Survival graphs are based on models M1, M3 and M4 reported in Table 2.

Table 1: Determinants of Terrorist Groups' Forced End (Attack Location Controls)

	M1 Embargo	M2 Blockade	M3 High-cost sanction	M4 Export sanction
Sanctions I.V.	-0.42	-14.35**	-14.95**	-1.77**
	(0.97)	(0.93)	(0.45)	(0.69)
Group size	-1.18**	-1.21**	-1.16**	-1.25**
	(0.57)	(0.56)	(0.53)	(0.54)
Number of attack locations	-0.14	-0.13	-0.12	-0.12
	(0.17)	(0.17)	(0.17)	(0.17)
Trade dependence	0.18	0.18	0.14	0.22
	(0.56)	(0.53)	(0.53)	(0.54)
Population	-0.12	-0.13	-0.13	-0.06
	(0.26)	(0.24)	(0.24)	(0.23)
Regime durability	0.29	0.30	0.29	0.31
	(0.20)	(0.20)	(0.20)	(0.20)
Nested mountains	0.64**	0.63**	0.63**	0.50*
	(0.29)	(0.27)	(0.27)	(0.28)
GDP pc	0.35**	0.28	0.33*	0.35**
	(0.17)	(0.18)	(0.18)	(0.18)
GDP growth	-0.00	-0.00	0.00	-0.01
	(0.04)	(0.04)	(0.04)	(0.04)
Non-contiguous	1.65**	1.63**	1.57**	1.73**
	(0.51)	(0.48)	(0.48)	(0.52)
Regime type	-0.08**	-0.07**	-0.08**	-0.09**
	(0.03)	(0.03)	(0.03)	(0.03)
Cold War	0.04	0.10	0.04	-0.18
	(0.65)	(0.65)	(0.66)	(0.69)
Constant	-7.47	-6.70	-6.88	-8.09
	(7.66)	(7.22)	(7.21)	(7.00)
ln_p	0.11	0.10	0.09	0.14
	(0.17)	(0.16)	(0.16)	(0.15)
Observations	1,372	1,372	1,372	1,372
Log Likelihood	-60.72	-59.98	-59.33	-58.80
Wald Test	62.36	865.95	2130.16	69.43

* p<0.10, ** p<0.05

Table of coefficients; robust clustered standard errors in parentheses.

Table 2: Determinants of Terrorist Groups' Forced End (Home Base Controls)

	M1 Embargo	M2 Blockade	M3 High-cost sanction	M4 Import sanction
Sanctions I.V.	1.05**	-12.54**	1.11**	1.26*
	(0.52)	(1.12)	(0.54)	(0.65)
Group size	-0.63*	-0.68*	-0.61*	-0.69*
	(0.35)	(0.37)	(0.35)	(0.39)
Number of home bases	0.09	0.07	0.08	0.13
	(0.33)	(0.36)	(0.34)	(0.37)
Trade dependence	-0.08	0.01	-0.07	-0.14
	(0.42)	(0.40)	(0.42)	(0.45)
Population	0.47	0.47	0.43	0.36
	(0.39)	(0.44)	(0.41)	(0.46)
Regime durability	-0.43*	-0.38*	-0.42*	-0.42*
	(0.22)	(0.22)	(0.23)	(0.23)
Nested mountains	0.07	0.09	0.00	0.05
	(0.37)	(0.34)	(0.37)	(0.38)
GDP pc	0.84**	0.84**	0.86**	0.72*
	(0.36)	(0.35)	(0.36)	(0.40)
GDP growth	-0.03	-0.04	-0.02	-0.03
	(0.04)	(0.04)	(0.04)	(0.05)
Non-contiguous	0.00	-0.22	-0.10	0.06
	(0.70)	(0.75)	(0.74)	(1.02)
Regime type	-0.08*	-0.09**	-0.08*	-0.11**
	(0.05)	(0.04)	(0.05)	(0.04)
Cold War	-0.38	-0.30	-0.37	0.06
	(0.61)	(0.64)	(0.64)	(0.68)
Constant	-17.54*	-17.41	-16.59	-14.74
	(9.99)	(10.91)	(10.38)	(11.17)
ln_p	0.10	0.05	0.05	0.02
	(0.10)	(0.11)	(0.10)	(0.11)
Observations	1,325	1,325	1,325	1,325
Log Likelihood	-48.95	-50.51	-49.03	-48.49
Wald Test	47.29	372.04	49.09	35.88

* p<0.10, ** p<0.05

Table of coefficients; robust clustered standard errors in parentheses.