GUILT BY ASSOCIATION: UNITED STATES TIES AND VULNERABILITY TO TRANSNATIONAL TERRORIST ATTACKS

A Thesis

by

MATTHEW GRANT WARHOL

Submitted to the Office of Graduate Studies of Texas A&M University in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

December 2010

Major Subject: Political Science
Guilt by Association: United States Ties and Vulnerability to Transnational Terrorist Attacks

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Approved by:

Chair of Committee, Michael T. Koch
Committee Members, Hyeran Jo
Arnold Vedlitz
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ABSTRACT

Guilt by Association: United States Ties and Vulnerability to Transnational Terrorist Attacks.

(December 2010)

Matthew Grant Warhol, B.A., Texas A&M University

Chair of Advisory Committee: Dr. Michael T. Koch

Do nations’ allies and trading partners affect their vulnerability to transnational terrorist attacks? Prior research has focused on how the attributes of individual nations, such as regime type, economic stability, and international power, affect their likelihood of being the target of transnational terrorist attacks. However, prior research has not addressed the impact of a nation’s economic and foreign policy ties on this phenomenon. Specifically, the question I ask is whether terrorists attempt to indirectly affect the status quo policy stance of a powerful nation by attacking the allies and trading partners of that nation. I develop a theoretical framework to explain why terrorists are likely to target allies of powerful nations in the international arena to force the more powerful nation to change its policy stance. Focusing on the United States, I examine how a nation’s economic and foreign policy ties to the U.S. affect its vulnerability to transnational terrorist attacks. I test my expectations using the ITERATE database of transnational terrorist events from 1968 to 2000. The results suggest that a nation’s economic and foreign policy ties may have a significant impact on its vulnerability to transnational terrorism.
DEDICATION

To the three most important people in my life: my parents, Fred and Betty Warhol, and Shannon Snider. My accomplishments would not have been possible without the love and support each of you has provided throughout my personal and professional journey.
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I would like to thank my committee chair, Dr. Michael Koch, and my committee members, Dr. Hyeran Jo and Dr. Arnold Vedlitz, for their guidance and support throughout the course of this research. The project would not have been possible without their guidance and assistance.

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love, and understanding have been the guiding force behind my ability to complete this process. Thank you.
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1. INTRODUCTION

On March 11, 2004, 191 individuals were killed and more than 1,200 were injured by deadly terrorist attacks on commuter trains and stations in Madrid. These attacks had an enormous impact on the citizens of Spain, as well as the entire international community. The Madrid bombings, along with other deadly terrorist attacks such as the subway attacks in London the next year, have opened up many scholars’ and politicians’ eyes to an alarming trend among international terrorist groups in the twenty-first century. That is, as recent attacks illustrate, and as Rosendorff and Sandler (2005) discuss, nations who support a prime-target nation, such as the United States, may themselves become a target of transnational terrorism. Although this idea has been discussed in previous work, to the best of my knowledge there has not been an empirical study to test if this expectation holds. Therefore, the purpose of this paper is to examine whether a nation’s allies and trading partners truly do affect its vulnerability to transnational terrorism. Specifically, the question I ask is whether terrorist organizations might target a specific nation to influence that nation’s more powerful ally and trading partner. Examining this question is necessary to advance the existing literature on transnational terrorism from both a theoretical and policy perspective. The attacks on Madrid provided a wakeup call to Europeans regarding their vulnerability to transnational terrorist activity, just as 9/11 did for those in the United States.

This thesis follows the style of the American Political Science Review.
The attacks on Madrid provided a wakeup call to Europeans regarding their vulnerability to transnational terrorist activity, just as 9/11 did for those in the United States. Many European leaders did not take the threat of transnational terrorism seriously, despite Europe’s role as an active center for terrorist support activity (Gunaratna 2004). In fact, some leaders believed that al-Qaeda had spared the continent because of its policy of tolerating terrorist support infrastructures. However, the attacks in Madrid and London opened European leaders’ eyes to the threat violent terrorist organizations pose to their home nations causing them to immediately take strides to prevent future attacks. Among the first questions the leaders of these nations were forced to consider were why their homeland had been the target of such large scale transnational terrorist activity.

I argue that the answer to this question lies in Spanish support of US operations against al-Qaeda. Enders and Sandler (2006) provide support for this view with their argument that the attacks on Madrid were intended to send a warning to other nations that cooperation with the United States in its “War on Terror” may carry additional costs. One unanticipated effect of these attacks was the victory of the Socialists over the ruling Partido Popular party in Spain in the next election. More importantly, this occurrence led to a sharp reduction in Spanish support for U.S. foreign policy initiatives in the Middle East. Potentially, a large number of nations could begin to follow Spain’s footsteps and begin to break ties with the United States to protect themselves from blowback of American foreign policy actions in their domestic realm (Goh 2003). The loss of support from even a small number of influential nations in the international community would have an enormous impact on the U.S. led global War on Terror. If a
large number of nations, particularly in Europe, refuse to associate with the United States’ foreign policy goals, the United States could find itself isolated, not by its own will, but due to the actions of other nations.

However, were the attacks on Spain and their subsequent withdraw from the “coalition of the willing” in Iraq an anomaly or part of a more predictable process? Specifically, do terrorist organizations target nations with strong foreign policy and economic ties to powerful and influential nations such as the United States at a higher rate than those that do not? The goal of this paper is to provide answers to these questions.

In the next section of the paper, I discuss the prior literature on transnational terrorism. The third section develops a theoretical framework to show why terrorists may target the ally or trading partner of their primary target in an effort to force the primary target into making concessions. I then develop a set of hypotheses based on the theoretical framework and test my expectations by examining a nation's economic and foreign policy ties with the United States and how these ties affect that nation’s vulnerability to transnational terrorist attacks. The results suggest that a nation’s allies and trading partners do affect its vulnerability to transnational terrorist attacks.
2. PREVIOUS TERRORISM LITERATURE

The study of terrorist actors and organizations has seen a continued maturation in both theoretical and methodological development over the past few decades. The common perception is that terrorists are irrational extremists who do not act with any other purpose than to instill fear and suffering in the hearts and minds of the individuals they directly attack, a view often fostered by the media (Sandler et al. 1983). Moreover, terrorists are often portrayed as low skilled, uneducated individuals with no other choice than to join extremist groups. However, numerous scholars have shown that terrorist actors are often highly skilled, well-educated individuals (Kreuger and Maleckova 2003; Bueno de Mesquita 2005) who are extremely strategic rational actors (Crenshaw 1981; 1998; 2004; Sandler and Lapan 1988; Hoffman 1998; Pape 2003). For my purpose, I use Sandler and Lapan’s (1988) definition of rationality as an agent’s response to its constraints in achieving its objective. Moreover, following the rational-actor framework, scholars have shown that terrorists do not choose their targets at random, but rather that they make a rational, well calculated choice based on perceived risks (Mickoulus 1980; Sandler et al. 1983).

In addition, research has shown that terrorist organizations have specific goals and strategies for going about achieving their objectives (Kydd and Walter 2006). Many terrorist organizations display strong patterns in not only their prescribed goals, but in the strategies they employ as well. Moreover, scholars have increasingly shown that terrorists are extremely cognizant of signaling from potential targets, that they base their

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\footnote{See Sandler et al. 1983; Atkinson et al. 1987; and Sandler and Scott 1987 for empirical support of this rational-actor viewpoint}
attacks based on a mix of internal and external stimuli (Hoffman 1998), and that they are willing and able to adapt based on these perceptions (Sandler and Lapan 1988; Martin 2003).

Enders and Sandler’s (1993; 2002; 2006) work regarding the substitution effect in transnational terrorism provides the most comprehensive empirical analysis of the above developments. This work shows that terrorists rationally substitute one mode or venue of attack over another based on internal and external stimuli such as a shift in a national security policy. Terrorists perform a cost-benefit analysis of one method of attack over another and allocate their resources toward the path that provides the highest probability of success. Essentially, terrorists seek out the “weakest link” and direct their attacks toward that “soft” target. This “weakest link” can be a particular nation in the international system, as was the case for Spain due to increased security policies of the United States, or a particular mode of attack that provides a greater likelihood of success than others due to the current security environment. An example of this is the installation of metal detectors in airports (begun in 1973) which decreased skyjackings and threats, but increased other kinds of hostage incidents not protected by detectors.

Due to this willingness and ability of terrorists organizations to evolve and make adaptations in their methods of attack, combined with the highly dispersed global network various terrorist organizations display, scholars and policy makers alike have come to the conclusion that the “War on Terror” cannot be fought from a unilateral perspective by the United States or any other superpower, but rather needs to be approached in a highly consolidated effort across the globe (Crenshaw 2004; Riedel
As discussed above, as long as there is a “weakest link” present, terrorists are likely and able to exploit it. Though this view is widely shared, recent history shows us that little has been done to move toward this consolidation of powerful nations joined by a common goal of eliminating transnational terrorism. There are numerous hindrances involved with attempting to develop a comprehensive global collective action force to combat transnational terrorism. Among these problems, which is the focus of this analysis, is the fear of backlash from supporting counterterrorism operations and regimes.

Numerous works that focus on transnational terrorism have focused on why terrorist organizations attack specific targets in an effort to achieve their goals. This work has primarily focused on what makes a particular target, most commonly nations, vulnerable to these violent incidents. Many scholars have focused on the effect of a nation’s regime type on their vulnerability to attacks (Li 2005; Wade and Reiter 2005; Drakos and Gofas 2007; Koch and Cranmer 2007). Other works have concentrated on the effect a nation’s level of power, the prevailing religion of a particular nation (e.g. Muslim), and the region a nation is located in and how these various factors influence a nation’s vulnerability to transnational terrorist incidents (Sobek and Braithwaite 2005; Drakos and Gofas 2006). Li and Shuab (2004) discuss how economic globalization and integration affect the likelihood of terrorist attacks against a nation. However, as discussed above, there has not been much attention given to how a nation’s allies and trading partners might affect that nation’s vulnerability to transnational terrorism.
3. THEORETICAL FRAMEWORK

In this analysis, terrorism is defined as the premeditated or threatened use of extra-normal violence or force to obtain a political, religious, or ideological objective through the intimidation of a large audience (Enders and Sandler 1999; 2002). For my purpose, I focus on transnational terrorism. A transnational terrorist incident in a country involves victims, perpetrators, targets, or institutions of another country. Based on the incident venue, transnational terrorist incidents can involve (1) terrorist attacks initiated by foreign terrorists against some domestic target in a country, (2) attacks by domestic terrorists against some foreign target in a country, or (3) attacks by foreign terrorists against some other foreign target in a country (Li 2005).

As discussed earlier, terrorist organizations have particular goals and employ various strategies to attain them. Most transnational terrorism involves the use of strategic coercion by terrorists in an effort to force concessions from their target government in order to reach the individual actor’s or group’s desired goals (Pape 2003). Acting in the rational-actor framework defined in the previous section, terrorists must determine the method of coercion which will produce the highest likelihood of success.

The strategic coercion that terrorists engage in can be thought of as similar to crimes of extortion, which have received extensive attention in numerous fields of study, particularly criminology. In fact, some scholars have discussed the ways in which terrorism and organized crime mirror each other, specifically in the manner in which they use methods of extortion in an effort to force their targets into making concessions (Sanderson 2004). Extortion is a form of predatory or exploitative crime distinguished
by the relationship between the criminal and the target. In extortion, the two actors strike a bargain: the extortionist threatens to injure a hostage unless the target agrees to pay a ransom (Best 1982). The hostage can be a person (kidnapping), property (racketeering), or a reputation (blackmail). The reason that the tactic of extortion is effective is that the threat of future harm is believable and credible due to the fact that the extortionist is already in control of the hostage. The target must decide whether to pay the ransom based on whether they value the hostage more or less than the costs of paying the ransom.

In the case of transnational terrorism, the two actors are the terrorists and their potential target. The terrorist actor or organization is the extortionist while the hostage is the target government of the terrorist organization. The ransom that the terrorists want is for the target to make the terrorists’ desired concession. The injury that will be inflicted on the target if they do not concede is a future attack. As discussed, in the case of the extortionist, their credibility is established through control of a hostage. Terrorists, in order to be effective in their strategic coercion of their target government, must establish the same level of credibility in their threats of future attacks. The most effective way of doing this for terrorists is through past actions which send strong signals to the international community. If terrorists have already shown that they are willing to attack a given target through previous direct attacks, or that they are willing to attack a similar target of which the same concessions were demanded, they will send a credible signal to the target government that they are able and willing to attack. Moreover, if the targets of
past games of coercion have conceded to the terrorists’ demands and have been spared from an attack, the terrorists’ credibility is strengthened to an even greater degree.

In general, national leaders faced with the prospect of war stand firm with their existing policies if they believe that the other side will retreat if they stand firm in their policies, and that concessions will be terribly costly. Moreover, they choose conciliation if they believe that firmness will likely lead to war, and that the other side will be satisfied if it receives reasonable concessions (Jervis 1979). The same type of logic can be applied to the situation the leader of the target nation who is taken “hostage” by the threat of future attacks faces. The leader must determine whether the costs of standing firm with their existing policies and facing an attack (i.e. not paying the ransom) are greater than conceding to the terrorists demands (i.e. paying the ransom) and avoiding any future attacks.

Terrorists are often faced with a situation in which they must decide between two targets to attack. As previously discussed, terrorists make well-calculated decisions as to which target they will attack based on the perceived payoffs, and are willing to substitute one mode or venue of attack for another based on changes in the security environment. The target they decide upon is the one which they believe will be the most likely to make a desired concession. Figure 1 a simple game tree model, represents the situation terrorists face when deciding which of two targets to attack. ²

In this situation, the terrorist can either target nation A or B. If attacked, nation A decides whether or not to concede to the terrorists demands or whether to deny the

² All figures and tables can be found in the Appendix.
terrorists their desired concession. The same logic follows for nation B. On the surface this game is very straightforward and simple to understand. However, my purpose is to examine why a terrorist group may choose to attack the ally or trading partner of a powerful nation in an effort to force the more powerful nation, also the primary target, to make the terrorists’ desired concessions. Figure 1 serves as a useful tool in considering why such an incident would occur. In Figure 1, nation A represents the primary target of a terrorist organization. A concession from this nation in the form of a policy change is the primary goal of the terrorists. Nation B represents an ally or trading partner of nation A. The terrorist organization’s purpose in targeting nation B is to force concessions from that nation which will in turn negatively affect nation A, the primary target of the terrorists, eventually forcing A into making concessions as well. For the purpose of this paper, the concession from nation B that the terrorists desire is for that nation to break its foreign policy and economic ties with nation A.

The obvious question then is why the terrorists would target their secondary target as opposed to directly attacking their primary target in hopes of a concession. This logic follows the substitution effect framework outlined above. Numerous works have discussed how direct terrorist attacks on a nation, particularly a powerful nation such as the United States, increase the resolve of that nation to combat terrorism (Walt 2001; Crenshaw 2004). This resolve comes primarily through an increased willingness to use military force against terrorist organizations and through the implementation of greater security measures by the target government. This increase in resolve signals to the terrorists that direct attacks against the powerful, primary target will not lead to the
terrorists’ desired concessions from the target government. With this in mind, terrorists must decide upon a new method of strategic coercion to instill against the primary target.

Going back to Figure 1, terrorists may turn to nation B, the secondary target, for an attack due to their belief that a direct attack on nation A will be unsuccessful in terms of achieving their primary goal. Nation B, the weaker nation of the two, will likely have a much lower threshold of the two for the amount of damage they can withstand from a potential terrorist attack. Based on their perceived credibility of the terrorists threats of a future attack established through their past actions, nation B’s leaders may have no choice but to concede to the terrorists due to the belief that standing firm in their policies will be more costly than the necessary concessions. The question then is why would the decision to attack the secondary target matter? More specifically, what impact would attacking the ally or trading partner of the primary target have on forcing the primary target into making a concession?

Just as scholars and policy makers are aware of the nature of the “War on Terror”, so too are terrorist organizations. Terrorists are aware that the United States, or any other great power, cannot completely eradicate terrorist operations alone. As previously discussed, as long as there is a “weakest link” present in a security policy to combat terrorist actions, terrorists will be able to exploit it. Therefore, a key for a terrorist organization would be to attempt to eliminate support for counterterrorism operations. As we saw in the case of Spain and their discontinued support of U.S. led efforts in the Middle East after the attacks in Madrid, one of the most effective ways of achieving this goal is through a direct attack on an ally in the War on Terror’s homeland.
If the allies and trading partners (i.e. nation B in Figure 1) of a primary target (i.e. nation A in Figure 1) become weary of having a close association with the powerful nation due to the threat of terrorist attacks and break their ties with that nation, which is the concession the terrorists desire from the secondary target, the primary target could find itself in an isolationist position in its counterterrorism efforts.

If this situation were to occur, the primary target would face a decision, concede to the terrorists, or continue forward without making a concession, in turn continuing to lose the support of important allies in the international community and essentially fighting a battle that cannot be won. Following this theoretical framework, one can see why terrorists, engaging in strategic coercion may choose to attack the ally or trading partner of their primary target in an effort to indirectly force the primary target into making concessions.

In order to test my expectations, I examine a nation’s economic and foreign policy ties with the United States and how these ties affect that nation’s vulnerability to transnational terrorist attacks. Numerous scholars across various fields have used data concerning the United States as the primary method of investigation in their work not only due to availability but also due to the United States’ status as an extremely powerful and high profile nation. As far as terrorism literature is concerned, scholars have often focused on the United States for these same reasons listed above, but in terms of why terrorists would choose to directly target the United States. The level of power, influence, and visibility that the United States experiences, combined with the fact that the United States has experienced numerous powerful and influential allies whom, if
they broke their ties with the United States, could potentially alter the United States’ ability to successfully engage in counterterrorism operations makes the United States an ideal example of nation A discussed above.

This theoretical framework leads to the following hypotheses:

**Hypothesis 1:** *The closer economic and foreign policy ties a nation has with the United States, the more likely that nation is to experience transnational terrorist attacks in its homeland.*

My first hypothesis follows the theoretical framework developed in the previous section. Acting within the strategic rational-actor framework, terrorist organizations may target allies and trading partners of the United States in an effort force the United States to alter its policy stance.

**Hypothesis 2:** *Vulnerability to transnational terrorist attacks for nations with economic and foreign policy ties to the United States has increased post-Cold War.*

Another hypothesis to be examined is that the vulnerability to transnational terrorist attacks for nations with economic and foreign policy ties to the United States has increased post-Cold War. David Rapoport (2002) describes four waves of rebel terror that have been seen throughout the globe. The two waves of interest for this project are the third, “New Left Wave”, best described as a period of “international terrorism”, and the fourth wave, known as the “religious wave”. These waves of terror and the events of these time periods provide the basis for this expectation. The third wave was a period characterized by extreme anti-Western imperialism and state-sponsored terrorism (Cronin 2002). Many of these groups that served as the main
driving force of terror activity in the 1970’s and 1980’s were motivated by revolutionary, which were often communist, motives spurred greatly by Soviet sponsorship and support.

However, despite some success by these groups, scholars such as Cronin (2002) have argued that the aspirations of many of these revolutionary organizations were not fully realized due in large part to the fact that they often did not have a common denominator to help them work together except to hinder “Western imperialism.” This overriding ideology was undoubtedly strong between these groups, but it did not help the organizations to come up with a criterion of certain goals that all would seek to accomplish due to the fact that these organizations, most of which were associated with a particular state or nation, had their own individual goals as their top priority.

The fourth wave, known as the “religious”, or “jihadist” wave was spawned by the Iranian Revolution of 1979 and the Soviet defeat in Afghanistan not long after (Cronin 2002). As the third wave began to weaken in the 1980’s as revolutionary terrorists were defeated in one country after another (Rapoport 2002), religious terrorists began to take over the international terror scene. As Hoffman (1998) reports, since 1980 the number of religious based groups has increased as a proportion of active terrorist groups: 2 of 64 groups in 1980; 11 of 48 groups in 1992; 16 of 49 groups in 1994; and 25 of 58 groups in 1995. Islamic terror groups, with anti-American and anti-Western goals and aspirations, have provided the majority of attacks and membership during this period. This new wave began to increase in strength throughout the 1990’s and the strength of this new wave reached a pinnacle on September 11, 2001 which Rapoport
(2002) describes as not only the most destructive day in the history of rebel terror, but the most important as well. Moreover, the rise of this fourth wave of rebel terror coincides with the transition of the nature of terrorism from primarily domestic to transnational that occurred in 1994 (Enders and Sandler 1999).

Due to the rise of the jihadist wave of terrorism combined with the increasing amount of terrorism which is transnational in nature over this time, I expect to see that nations with economic and foreign policy ties to the United States face an increased vulnerability to transnational terrorist attacks post-Cold War.
4. RESEARCH DESIGN AND MEASURES

I test my expectations using the ITERATE (International Terrorism: Attributes of Terrorist Events) dataset (Mickolous et. al. 2004) of 2172 transnational terrorist incidents in 83 nations between 1968 and 2000. My dependent variable is a count variable of all transnational terrorist incidents, as previously defined, in a nation for a given year. I call this variable Incidents\(^3\).

The key explanatory variables I include to represent a nation’s economic and foreign policy ties with the United States include the amount of military and economic aid the target nation receives from the United States, the target nation’s dependency on the United States for trade, and whether the target nation has an alliance with the United States.

*Military Aid (Logged) and Economic Aid (Logged)* are both continuous measures of U.S. aid to a target nation. The variables are measured in constant 2005 US dollars. The data for these variables were collected from the U.S. Agency for International Development (USAID)’s online Greenbook. For the purpose of this paper, the variables are measured in hundreds of thousands of dollars given by the United States to a target nation. My expectation is that a nation’s vulnerability to transnational terrorism increases with the amount of military and economic aid they receive from the United States.

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\(^3\) I recognize that this does not take into account the magnitude of the terrorist attack. For this paper, I am interested in whether or not nations with ties to the United States are more likely to be the target of transnational terrorism. I am not concerned with how these ties may affect the strategy employed by the terrorists, which is directly tied to the magnitude of the event. I hope to explore this dynamic in future research.
Trade Dependence is a measure of a target nation’s dependency on trade with the United States which comes from Gleditsch (2002). Gleditsch codes bilateral trade flows for all country dyads between 1948 and 2000 measured in millions of current-year U.S. dollars. I use his data on US bilateral trade flows in order to create a measure of trade dependence on the U.S. This was done by adding exports from the target to the U.S. with imports from the U.S. to the target and dividing that figure by the target state's total trade. The result is a ratio of how dependent is the target on the U.S. as a trading partner. I expect to see that nation’s with a strong dependence on the U.S. as a trading partner are more vulnerable to transnational terrorism.

Alliance is a dichotomous measure of whether or not a nation has an alliance with the United States. This information was gathered through the use of the EUGene Data Management Program (Bennett Jr and Stam III 2002). The information for alliance type is coded from the COW alliance data (Gibler and Sarkees 2004), with 1 representing a defense pact with the U.S., a 2 representing neutrality, a 3 representing an entente, and a 4 representing the absence of an alliance. However, I am only concerned only concerned with whether or not an alliance is present, not the type, therefore the data was recoded into a 1 if an alliance is present, and 0 if an alliance is not present. My expectation is that nations allied with the United States are more likely to experience transnational terrorist attacks than those which are not.

To address the possibility that the observed correlations between these measures of a nation’s economic and foreign policy ties to the United States and vulnerability to
transnational terrorism are spurious, I control for a range of conditions that the literature suggests are determinants of transnational terrorism.

*Government Capability* is a measure of the amount of resources a government controls that could theoretically be applied to contend with or control terrorist activities (Koch and Cranmer 2007). This measure is taken from the Correlates of War (COW) national capabilities index (Singer, Bremer, and Stuckey 1972; Singer 1987). The composite index of national capabilities (CINC) is a weighted average of a state’s share of the international system’s total and urban populations, energy consumption, iron and steel production, military personnel and expenditures. It is important to control for a nation’s capabilities for a variety of reasons. For example, a powerful nation’s capabilities may generate hostility from foreign citizens, making it a more attractive target of terrorist action (Sandler and Lapan 1988). Also, terrorist organizations may see a powerful nation as an attractive target due to the potential media exposure that may result from an attack on a highly visible and influential target (Li 2005).

*Democracy* is a dichotomous variable used to indicate whether a nation is a democracy or not. Data for the democracy measure comes from the Polity IV dataset (Jaggers and Gurr 1995). A nation with a score of seven or higher is coded as a democracy and a nation with a score of less than seven is coded as a non-democracy. Numerous works focused on the potential impacts, both positive and negative that being a democratic nation can have on a nation’s vulnerability to transnational terrorism (Eubank and Weinberg 1994; Li 2005; Sobek and Braithwaite 2005; Koch and Cranmer 2007). I use these data to create a dichotomous variable for democracy; a score of seven
or higher is coded as a democracy and a score of less than seven is coded as a non-democracy.

Conflict is a dichotomous measure of whether a nation is engaged in interstate military conflict or war using the Upsalla data (Gleditsch et al. 2002). It may be that nations involved in a conflict are more vulnerable to transnational terrorist attacks than those which are in times of peace. This measure equals one if a nation is engaged in a conflict and zero if it is not.

Lebanon is a variable controlling for the influence and leverage of the nation of Lebanon in the sample. The average number of transnational terrorist attacks a nation receives in a given year is 2.38. Meaning, on average, a nation in the sample experiences slightly over two terrorist attacks per year from 1968 to 2000. As for Lebanon, it experienced an average of 26.24 terrorist incidents per year during the sample. Moreover, during a five year period from 1982 to 1986 during the height of the Israeli-Lebanese conflict, Lebanon averaged a staggering eighty attacks per year. Therefore, it is important to control for Lebanon due to the strong leverage and influence this nation has as an extreme outlier in the sample (Gujarati 2003).

Post-Cold War is a variable coded as 1 after 1991 (post-Cold War) and 0 before 1991 (Cold War). I control for the post-Cold War period because of the possibility that transnational terrorist incidents display a different pattern and frequency post-Cold War.

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4 The results of the key explanatory variables in the analysis do not change substantively without controlling for Lebanon.
5 I choose 1991 as the break point for the end of the Cold War period following previous examples (i.e. Li 2005). It is possible that I could include 1994 as the break point due to the shift to primarily transnational terrorist incidents as opposed to domestic, but I choose not to due to the substantially smaller sample size that would occur due to the existing data set.
(Enders and Sandler 1999). Moreover, I include the variable in the analysis due to the fact that I am interested in the conditional effect of a nation’s foreign policy and economic ties to the United States on its vulnerability to transnational terrorist incidents both during and after the Cold War.

Because the dependent variable is event count, ordinary least squares (OLS) estimates can be inefficient, inconsistent, and biased (Long 1997). Therefore, the statistical method employed is a negative binomial population averaged AR(1) regression with robust standard errors. I employ the negative binomial method rather than the poisson due to the over dispersion of the dependent variable (Long 1997). The population averaged AR(1) model allows controls for both between country heteroskedasticity and within country autocorrelation over time. Terrorism scholars are often concerned about the temporal effect of a nation’s history of transnational terrorist incidents on its vulnerability at the current time. Scholars have used various methods to control for this such as including a lagged dependent variable as a regressor to capture the impact of a nation’s vulnerability to attacks in the previous year to their current vulnerability. However, the use of the lagged dependent variable with random or fixed effects is inappropriate statistically. If a lagged dependent variable is included as a regressor, then random effects estimators are biased, even asymptotically (Hsiao 2003).

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6 The negative binomial differs from the Poisson regression by the addition of a residual variance parameter that captures over dispersion in the dependent variable (which occurs when the standard deviation is greater than the mean).
The population averaged regression with the AR(1) process allows for a similar
correction without the estimation problems associated. Furthermore, my primary interest
is the average effect of foreign policy and economic ties to the United States on nations’
vulnerability to attacks not changes in individual nations over time. Therefore, a
marginal approach to estimation with correlated data such as the population averaged
approach is appropriate (Zorn 2001). Because terrorist incidents may affect many of the
right-hand variables (e.g., Military Aid), all independent variables are lagged one year
behind the dependent variable to control for possible simultaneity bias.
5. RESULTS

Models 1 and 2 of Table 1 present the results of the baseline model testing whether a nation’s foreign policy and economic ties to the United States affect its vulnerability to transnational terrorist attacks. From the results, we see that three of the key explanatory variables: military aid, economic aid, and the presence of an alliance with the United States are positive and statistically significant as my first hypothesis predicted. That is, the greater the level of military aid and economic aid a nation receives from the United States, the greater its vulnerability to transnational terrorist attacks. Moreover, those nations that have an alliance with the United States are more likely to be targets of attacks than those that do not. The one key explanatory variable of interest that displays the opposite relationship than predicted is a nation’s dependence on the United States for international trade. This variable displays a significant negative relationship with transnational terrorist attacks signaling that the more dependent a nation is on the United States for trade, the less vulnerable that nation is to transnational terrorist attacks. As for the controls, we see that increased government capability, being involved in an interstate conflict, and being a democracy all make a nation a more likely target of transnational terrorism. Moreover, it appears that there was a lower rate of occurrence of transnational terrorist attacks during the post-Cold War period than during the Cold War.

While the results of Models 1 and 2 showing the basic relationships between the key explanatory variables and transnational terrorist attacks is useful, it is beneficial to examine the substantive effects of these relationships further to determine exactly what
they mean in terms of the number of terrorist attacks occurred by nations with these characteristics. In order to do this, I test the marginal effect of the key explanatory variables at their minimum and maximum values on transnational terrorist attacks while holding all other variables constant at either their mean or modal value. For example, the lowest amount of military aid received from the United States for any given nation in the sample is $0. Therefore, I run a test to determine how many transnational terrorist attacks a nation would expect to experience if it did not receive any military aid from the United States and displayed the mean or modal values for all other variables in the model (i.e. not a democracy, not involved in a conflict, etc.). This demonstrates the substantive effect of the amount of military aid a nation receives from the United States on the total number of terrorist attacks that nation is expected to experience in a given year.

The first variable we will consider is military aid received from the United States. As we move from the minimum amount of military aid received to the maximum, we have an increase in the expected number of transnational terrorist attacks from 1.20 per year to 3.79. For economic aid received from the United States, there is an increase from 1.16 attacks per year to 1.68 from the minimum amount received to the maximum. For nations that do not have an alliance with the United States, holding other variables constant at their means, the expected number of transnational experienced is just under one, or .81. For those nations with an alliance, the expected number of attacks is 3.35 per year. Finally, when considering a nation’s dependency on the United States for trade, the lowest dependence leads to an expected 1.50 attacks per year while the
maximum level of dependence leads to .63 attacks. Also, I set all key explanatory variables to their minimum values while holding all controls constant in order to create a scenario in which a nation has no ties whatsoever to the United States in any of these foreign policy or economic areas. The expected number of attacks a nation would be expected to experience in this scenario is .70 per year. Following this, I set all explanatory variables at their maximum values to test the opposite scenario. The expected number of transnational terrorist attacks a nation would be expected to experience in this scenario is 5.62. This strong increase in the expected number of attacks is further evidence of the strength of the impact that strong foreign policy and economic ties to the United States can have a nation’s vulnerability to transnational terrorism.

Despite the directionality of the impact of a nation’s ties to the United States for international trade on its vulnerability to transnational terrorist attacks being the opposite of my expectations, the results of Table 1 provide strong support for my first hypothesis as well as the theoretical framework. Overall, strong foreign policy and economic ties to the United States do appear to make a nation more vulnerable to transnational terrorist attacks. However, this is not the full story. As indicated by my second hypothesis, I am also interested in the conditional effect of the post-Cold War period on the impact of these ties.

Table 2 examines this conditional effect in order to test my second hypothesis that nations with foreign policy and economic ties to the United States experienced an increased vulnerability to transnational terrorist attacks post-Cold War due to the rise of
the jihadist wave of transnational terrorism. In order to test this effect I include appropriate interaction terms into the model. From the results of Table 2, we see that during the Cold War a significant positive relationship existed between the amount of military aid received from the United States and a nation’s vulnerability to transnational terrorism. In contrast, during the post-Cold War period we see that there is actually a negative relationship present, although this relationship is not statistically significant. Figure 2 serves as a visual representation of the conditional effect of the amount of military aid received from the United States on a nation’s vulnerability to transnational terrorist attacks during the post-Cold War period. As the graph shows, during the post-Cold War period nations receiving higher levels of military aid from the United States were at a lower level of vulnerability to transnational terrorist attacks than during the Cold War. Looking at the impact of the amount of economic aid received from the United States, we see a positive, though not statistically significant relationship present during the Cold War, and a positive and significant relationship present during the post-Cold War period. However, as Figure 3 shows, from a substantive and statistical standpoint, nations receiving higher levels of economic aid from the United States were actually less vulnerable to transnational terrorist attacks than those receiving higher levels of economic aid during the Cold War period. As for the impact of the presence of alliance with the United States on a nation’s vulnerability to transnational terrorist attacks, a significant positive relationship is present during the Cold War period, while for the first time, a negative and significant relationship exists during the post-Cold War period. Finally, we see that a significant negative relationship is present between the
level of dependence a nation has on the United States for international trade and its vulnerability to transnational terrorism during the Cold War while a positive yet non-significant relationship is present during the post-Cold War period. Figure 4 provides visual evidence of this conditional relationship. The disparity in the effects of these key explanatory variables from one era to the next will be discussed further in the next section.

Substantively, all the control variables display the same behavior as in Table 1. Overall, the results do not provide significant support for or against the expectations of my second hypothesis. Nations with foreign policy and economic ties to the United States appear to be equally vulnerable to transnational terrorist attacks both during and after the Cold War period although due to different ties depending on the era.
6. DISCUSSION AND IMPLICATIONS

Overall, it seems that my theoretical framework and main hypothesis are correct. Nation’s with strong economic and foreign policy ties to the United States are more vulnerable to transnational terrorist attacks. Moreover, it seems that the effect of these various ties are conditional on the time period under examination. A few examples of this from the analysis are worth consideration. During the Cold War period my analysis indicates that nation’s receiving higher levels of military aid from the United States were more vulnerable to transnational terrorist attacks while during the post-Cold War period this effect is not present. Another interesting conditional effect is present when examining the impact of economic aid received from the United States. During the Cold War period, the amount of economic aid received from the United States appears to play a positive yet non-significant role in a nation’s vulnerability to attacks while during the post-Cold War period a positive and significant effect is present. It should be noted, as shown in Figure 3, that a nation receiving higher levels of economic aid from the U.S. during the post-Cold War period was substantively and significantly less vulnerable to transnational terrorist attacks than during the Cold War period. In addition, the presence of an alliance with the United States appears to play a significant role in determining a nation’s vulnerability to transnational terrorist attacks albeit in different ways depending on the time period. During the Cold War period, nations having an alliance with the United States are significantly more vulnerable to attacks while during the post-Cold War period the opposite effect is true. Related, during the Cold War period nations with an increased dependence on trade with the United States experienced a lower
vulnerability to attacks, while during the post-Cold War period they experienced a greater vulnerability. The conditional effects of the two foreign aid components (i.e. military and economic aid), the presence of an alliance, and the dependence on trade with the United States on a nation’s vulnerability to transnational terrorist attacks are fruitful topics that should be examined in subsequent research. It does seem that there are conditional aspects to the impact of these various foreign policy and economic ties to the United States on a nation’s vulnerability to transnational terrorism although not necessarily in the way in which I envisioned. A possible extension of this research would be to develop a richer theoretical framework to explain why these specific conditional relationships exist.

The obvious next step in an analysis of this type would be to extend the time series of transnational terrorist attacks to include the post 9/11 period. It would be extremely interesting to see if the trends seen in the analysis presented in this paper hold when the years of 2001 to the presents are added. Specifically, it would be interesting to see if nations that have an alliance with the United States are still less vulnerable to transnational terrorist attacks during this time period as they appear to be during the post-Cold War era examined in this analysis (1991-2000). The attacks in Spain and Great Britain discussed above would suggest that this trend might not be the case in the post 9/11 period.

Another promising topic for future research would be to examine the magnitude of an attack on the relationships between various economic and foreign policy ties with the United States observed in the analysis. Perhaps terrorists are primarily targeting
nations with foreign policy and economic ties to the United States with high profile, high casualty attacks.

Overall, this analysis provides a clear, straightforward test showing that yes, nation’s with strong foreign policy and economic ties to the United States do experience a higher vulnerability to transnational terrorist attacks.
7. CONCLUSIONS

The goal of this analysis was to test whether a nation’s allies and trading partners affect its vulnerability to transnational terrorism. Specifically, I wanted to uncover whether a nation’s economic and foreign policy ties to the United States increased its vulnerability to transnational terrorist attacks. Although numerous scholars had posited this theoretical framework, this study is the first to provide strong empirical evidence that this expectation holds. The answer is yes, nations with strong foreign policy and economic ties to the United States are more vulnerable to transnational terrorist attacks.

Also, this study provides a new way to think about how different characteristics of a nation affect its vulnerability to terrorism. As discussed above, scholars have focused on how numerous country specific characteristics such as regime type, power, and region may affect that nation’s vulnerability to transnational terrorist attacks. This analysis presents a new characteristic of nations to consider when attempting to determine how vulnerable a particular nation is to future transnational terrorist attacks, which is that nation’s allies and trading partners. The continued analysis, both from a theoretical and empirical perspective, of terrorists’ choice of targets and modes of attack, is needed to uncover more trends such as the ones presented in this analysis.

From a policy perspective, the analysis should provide further proof that terrorist organizations are able and willing to find a weakest link in the international security environment and exploit it. U.S. policy makers becoming more aware of the need for a consolidated global effort to combat the threat of transnational terrorism and have
implemented numerous policies in an attempt to bolster security levels and military capability to fight the terrorist threat in nations across the globe. It could be that these nations receiving high levels of aid and support from the United States may actually be increasing their vulnerability by doing so. Policy makers should be aware of these types of patterns in terrorist behavior and recognize that by attempting to bolster a nation’s security environment to prevent them from being the “weakest link” they may actually be making that nation a more likely target of future attacks.

Time will tell if terrorist organizations will continue to display the pattern of targeting allies and trading partners of the United States as shown in this empirical analysis and by the attacks on Spain and Great Britain. More importantly, it will be interesting to see if nations with these ties continue to be targeted if more nations continue to follow in Spain’s footprint and distance themselves from the U.S. led “War on Terror”. If this were to happen, the United States may someday find itself isolated in its effort to fight a seemingly unwinnable battle not due to its own desire, but by other nations’ fear of being guilty by association.
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## APPENDIX

Table 1: Economic and Foreign Policy Ties to the United States and Vulnerability to Transnational Terrorist Attacks (Full Sample 1968-2000)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1: Key Explanatory Variables</th>
<th>Coefficient (SE)</th>
<th>Model 2: Full Sample with Control Variables Included</th>
<th>Coefficient (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military Aid</td>
<td></td>
<td>.038** (.015)</td>
<td></td>
<td>.126*** (0.15)</td>
</tr>
<tr>
<td>Economic Aid</td>
<td></td>
<td>.094*** (.19)</td>
<td></td>
<td>.046** (0.20)</td>
</tr>
<tr>
<td>Alliance</td>
<td></td>
<td>1.24*** (.130)</td>
<td></td>
<td>1.42*** (0.91)</td>
</tr>
<tr>
<td>Target Dependence</td>
<td></td>
<td>-1.09*** (.264)</td>
<td></td>
<td>-.614*** (.205)</td>
</tr>
<tr>
<td>Gov. Capability</td>
<td></td>
<td>-</td>
<td></td>
<td>31.79*** (3.90)</td>
</tr>
<tr>
<td>Conflict</td>
<td></td>
<td>-</td>
<td></td>
<td>.798*** (0.79)</td>
</tr>
<tr>
<td>Democracy</td>
<td></td>
<td>-</td>
<td></td>
<td>.211** (0.83)</td>
</tr>
<tr>
<td>Post-Cold War</td>
<td></td>
<td>-</td>
<td></td>
<td>-.343*** (0.83)</td>
</tr>
<tr>
<td>Lebanon</td>
<td></td>
<td>-</td>
<td></td>
<td>3.04*** (.237)</td>
</tr>
<tr>
<td>Chi Square</td>
<td></td>
<td>134.85***</td>
<td></td>
<td>933.37***</td>
</tr>
<tr>
<td>N=</td>
<td></td>
<td>2172(83)</td>
<td></td>
<td>2172(83)</td>
</tr>
</tbody>
</table>

Notes: Negative Binomial Population Averaged AR(1) Regression with Robust Standard Errors. *p<.10, **p<.05, ***p<.01. Note N= total observations with number of countries in parentheses.
Table 2: Economic and Foreign Policy Ties to the United States and Vulnerability to Transnational Terrorist Attacks (with Post-Cold War Interaction Terms 1968-2000)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military Aid</td>
<td>.135*** (.018)</td>
</tr>
<tr>
<td>Economic Aid</td>
<td>.024 (.023)</td>
</tr>
<tr>
<td>Alliance</td>
<td>1.62*** (.103)</td>
</tr>
<tr>
<td>Target Dependence</td>
<td>-.650*** (.238)</td>
</tr>
<tr>
<td>Post-Cold War * Military Aid</td>
<td>-.018 (.033)</td>
</tr>
<tr>
<td>Post-Cold War * Economic Aid</td>
<td>.094** (.043)</td>
</tr>
<tr>
<td>Post-Cold War * Alliance</td>
<td>-.988*** (.197)</td>
</tr>
<tr>
<td>Post-Cold War * Target Dependency</td>
<td>.473 (.429)</td>
</tr>
<tr>
<td>Gov. Capability</td>
<td>31.45*** (3.80)</td>
</tr>
<tr>
<td>Conflict</td>
<td>.835*** (.078)</td>
</tr>
<tr>
<td>Democracy</td>
<td>.198** (.082)</td>
</tr>
<tr>
<td>Cold War</td>
<td>-.335* (.175)</td>
</tr>
<tr>
<td>Lebanon</td>
<td>3.09*** (.230)</td>
</tr>
<tr>
<td>Chi Square</td>
<td>1051.70***</td>
</tr>
<tr>
<td>N=</td>
<td>2172(83)</td>
</tr>
</tbody>
</table>

Notes: Negative Binomial Population Averaged AR(1) Regression with Robust Standard Errors. *p<.10, **p<.05, ***p<.01. Note N= total observations with number of countries in parentheses.
Figure 1: Terrorists’ Choice of Targets

Terrorists

- Attack A
  - Deny
  - Concede

- Attack B
  - Concede
  - Deny
Figure 2: Marginal Effect of Military Aid Post-Cold War

Marginal Effect of Military Aid on Transnational Terrorist Attacks Post-Cold War

-10 -5 0 5
Terrorist Attacks
-5 0 5 10
Military Aid
Post-Cold War
95% Confidence Interval

Marginal Effect of Military Aid on Transnational Terrorist Attacks Post-Cold War

-10 -5 0 5
Military Aid

-10 -5 0 5
Marginal Effect

Post-Cold War
95% Confidence Interval

Marginal Effect of Military Aid on Transnational Terrorist Attacks Post-Cold War

-10 -5 0 5
Military Aid

-10 -5 0 5
Marginal Effect

Post-Cold War
95% Confidence Interval
Figure 3: Marginal Effect of Economic Aid Post-Cold War
Figure 4: Marginal Effect of Target Dependency Post-Cold War
VITA

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