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Terrorism Shocks: Domestic Versus Transnational Responses

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This article distinguishes the demand from the supply of counterterrorism following either a large-scale terrorist attack or campaign. On the demand side, terrorism shocks increase the willingness of civilians to sacrifice their liberties for security, thereby giving the government a mandate to augment defensive and proactive measures against the terrorists. The supply side differs greatly between domestic and transnational terrorism. Supply problems may plague countermeasures against transnational terrorism as at-risk nations act strategically. In particular, there is a strong proclivity for nations to overspend on defense and to underspend on proactive measures. These tendencies are explored using simple game theory. A country’s sovereignty also bolsters the ability of targeted nations to address domestic terrorism with an appropriate mix of counterterrorism measures.

Large-scale terrorist attacks and significant terrorist campaigns affect the public at large, which, in turn, puts pressures on the government to restore security. The public’s calls for action affect the demand side of politics, while the response of the besieged government influences the supply side of politics. Governments are besieged not only by the terrorists who demand political concessions, but also by citizens who want tranquility restored. This restoration typically requires counterterrorism policy but, in rarer instances, may result in an accommodation with the terrorists (e.g., independence for Algeria or the withdrawal of the Multinational Force from Lebanon in 1984). Following major terrorism attacks, the ensuing pressures on a liberal democracy are particularly onerous insofar as the government’s legitimacy rests, in large part, on its ability to protect people and property (Wilkinson 1986, 2001). If the public believes that a terrorist incident or a series of such incidents are beyond the government’s means to cope, then the government may lose the next election. There are stark instances—U.S. President Jimmy Carter’s defeat after the

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Iranian hostage crisis in 1979, Bettino Craxi’s ouster after the release of the Achille Lauro hijackers in 1985, and José María Aznar’s defeat after the Madrid commuter-train bombings in 2004—where the government’s perceived incompetent handling of a significant terrorist event led to an election defeat. Authoritarian governments are less pressured by large-scale terrorist incidents because re-election is not a concern, protection of lives and property is not expected, and countermeasures can be much less restrained. Moreover, these governments can withhold or release information strategically.

Casual empiricism suggests that governments’ response to domestic (homegrown) terrorism is more effective than their response to transnational terrorism. In the last decades, there have been notable instances—Italian action against the Red Brigades, the Belgian reaction to the Combatant Communist Cells (CCC), the French reaction to Direct Action, Japanese measures against Aum Shinrikyo, Sri Lankan efforts against the Tamil Tigers, and the Turkish offensive against the Kurdistan Workers’ Party (PKK)—where aggressive measures defeated or greatly weakened the terrorists (Alexander and Pluchinsky 1992; Cronin 2006). Other instances of successful government action against a terrorist group includes Irish actions against the Real Irish Republican Army (RIRA), West German efforts against the Red Army Faction (RAF), and Peruvian measures against Shining Path (Cronin 2006; White 2003). Success resulted in the group either ceasing operations (e.g., CCC, Italian Red Brigades, and Tamil Tigers) or curtailing them for a period of time (e.g., RAF and PKK). For each of these groups, a significant portion of their attacks had a domestic component (i.e., many attacks occurred on home soil and jeopardized citizens’ well-being). The outcome of countermeasures against transnational terrorist organizations (e.g., Al Qaeda, the Abu Nidal Organization, Popular Front for the Liberation of Palestine, Popular Front for the Liberation of Palestine-General Command, Islamic Jihad, Jemaah Islamiyah, Armenian Secret Army for the Liberation of Armenia, and al-Jihad) are much less impressive. Why is this the case? Moreover, how do massive terrorist shocks affect governments differently between domestic and transnational terrorist attacks? What role can multilateral institutions, such as INTERPOL, play in coordinating a collective response to common transnational terrorist threats?

The primary purpose of this article is to provide answers to these and other questions. In so doing, it shows why governments’ reactions to terrorist shocks greatly differ between domestic and transnational terrorist attacks owing to diverse strategic drivers on the demand and supply for political solutions. That is, both the public and the government respond in drastically different ways to these two kinds of terrorism shocks. For domestic terrorist attacks, the government has little choice but to be self-reliant and find an appropriate mix of defensive and proactive measures. In contrast, transnational terrorist attacks may induce governments to engage in strategic tactics, whereby they wait for another targeted government to eliminate the threat (Arce and Sandler 2005; Sandler and Arce 2003; Sandler and Lapan 1988; Sandler and Siqueira 2006). Furthermore, governments may overspend on defensive measures to transfer attacks abroad, a strategy that does not work from a global viewpoint. For domestic terrorism, a central government takes a countrywide viewpoint and eliminates such strategic responses. Unfortunately, a supranational government for coordinating international countermeasures against transnational terrorist groups does not exist.

Sovereignty also plays a role in these different responses. For domestic terrorism, the targeted government controls its own territory and can usually direct resources to where the threats reside. This is less true for transnational terrorism where more of the threat may be abroad. Counterterrorism activities in foreign lands require the ability to project power and the willingness to violate another state’s sovereignty. Many countries
may not possess such capacity or desire. Surely, the costs of transnational counterterrorism measures are higher compared to domestic actions. In liberal democracies, governments have a constitutional right to protect their territory; constitutional constraints limit many democracies from proactive measures on foreign territories without legislative approval. Although these important political considerations are acknowledged, the task here is to show how strategic reactions shape countries’ differentiated responses to domestic and transnational terrorism.

A secondary purpose here is to investigate the likely response of the public to terrorist shocks. In particular, the author is interested in the public’s willingness to trade off civil liberties for greater security following such shocks. This willingness affects the demand for counterterrorism actions because sacrificing civil liberties gives clear signals to governments for action. Effective counterterrorism responses can improve the necessary tradeoff between civil liberties and security so that residents gain a more secure environment with more liberties. A tertiary purpose is to investigate the role of multilateral organizations in coordinating a collective transnational response. A final purpose is to speculate on what it would take to get a fuller international response to transnational terrorist attacks.

The remainder of the article has seven sections. Preliminaries are given in the next section, followed by an analysis of civilian responses to terrorist shocks in the second section. Governments’ response to domestic terrorism is addressed in the third section, while their response to transnational terrorism is presented in the fourth section. Simple game theory is used to contrast and compare these two responses. In the fifth section, collective action at the transnational level is examined. The sixth section addresses what it would take to mount a concerted coordinated international counterterrorism response. Concluding remarks are contained in the final section.

Preliminaries

Terrorism is the premeditated use or threat to use violence by individuals or subnational groups against noncombatants in order to obtain a political or social objective through intimidation of a large audience beyond that of the immediate victims (Enders and Sandler 2006a). There are a few things to highlight in this definition. First, there must be a political or social aim associated with the violent attacks—kidnappings, hijackings, assassinations, bombings, or armed attacks—if they are to qualify as terrorist acts. Such attacks motivated by money alone are acts of extortion and constitute crimes rather than terrorism. Second, the perpetrator is not the state. State terror, as practiced by Stalin, is of interest, but is not the terrorism addressed in this article. Third, terrorists intend to intimidate a wide audience, beyond the immediate victims. It is this audience that the terrorists are hoping will pressure the government to concede to their demands for political change. Fourth, victims are designated as noncombatants so that attacks against an occupying military force are not considered to be terrorism. Some definitions—for example, that of the U.S. Department of Defense—do not exclude combatants (Hoffman 2006; Schmid and Jongman 1988).

For the purpose of this article, an important distinction concerns domestic and transnational terrorist events. Domestic terrorist events involve perpetrators, victims, and audience from the venue country. Moreover, the consequences of a domestic terrorist event are only felt at home; there are no harmful spillovers or ramifications for other countries. Terrorist acts by left-wing groups in the United States during the 1970s protesting the Vietnam War were domestic terrorist events, as was the 19 April 1995 bombing of the Alfred P. Murrah Building in Oklahoma City. In contrast, transnational terrorist events have implications for
two or more countries (Mickolus 1980). Terrorism is transnational when an incident in one country includes perpetrators, victims, institutions, governments, or citizens of another country. Incidents, such as hijackings or letter bombings, that begin in one country and end in another country, are transnational. The four hijackings on 11 September 2001 (henceforth 9/11) were transnational terrorist attacks, since victims hailed from many countries, the perpetrators were from more than one country, and the audience was global. Transnational terrorist events have consequences for more than one country (e.g., 9/11 affected stock markets in the short term throughout the world) (Chen and Siems 2004).

With transnational terrorism, countries’ counterterrorism policies are interdependent. Efforts by the United States to secure its borders and ports of entry may merely transfer an intended attack against Americans at home to Americans abroad. Terrorists seek out soft targets so that the location of their intended attacks responds to policy efforts to harden targets. Recent empirical work shows that efforts by governments to protect their officials and military from terrorist attacks transferred a greater share of attacks to business targets (Brandt and Sandler 2010). As businesses protected their interests, terrorists increased their attacks on private parties, the hardest-to-protect target group. If the same terrorist group targets the interests of many countries, efforts to destroy the group’s capabilities will benefit all at-risk countries. As such, transnational terrorism underscores the need for countries to coordinate antiterrorist policies.

Another important distinction is between defensive and proactive counterterrorism policies. Defensive policies protect potential targets either by making attacks more costly for terrorists or by reducing their likelihood of success. Effective defensive efforts may also curb losses when attacks do occur. Defensive measures are, too often, reactive as authorities respond to vulnerabilities revealed by past incidents (e.g., making passengers remove their shoes after the incident of the “shoe bomber” on a trans-Atlantic flight). Some applications of technology—metal detectors or bomb-sniffing equipment in airports—are defensive measures to limit hijackings and bombs on planes. Other defensive responses concern hardening targets through an enhanced security perimeter (e.g., cement barriers in front of federal buildings), more guards, or surveillance equipment. Some defensive measures may involve legal actions, such as stiffer penalties for terrorist attacks (Landes 1978). Others may include cheap talk—a pledge never to negotiate with hostage takers, with the intent to discourage future hostage-taking (Lapan and Sandler 1988). Defensive actions often deflect an attack from a hardened to a softer target and, hence, impose public costs on potential targets; thus, a negative externality (i.e., uncompensated interdependency) is associated with this transference. Following 9/11, terrorist attacks moved from countries with large homeland security budgets to those with smaller budgets (Enders and Sandler 2006b).

Proactive policies require the government, military, or police to confront the terrorists or their supporters directly. If government action destroys terrorists’ resources, their finances, safe havens, supply lines, or sponsors, then the capabilities of terrorists to engage in operations are compromised. Terrorists’ resources can be eliminated by arresting their members, destroying their training camps, or confiscating their weapons. Intelligence can be proactive if terrorist groups are infiltrated and compromised. Military operations can destroy a large number of operatives and lay waste to safe havens. Efforts to reduce terrorist finances are also proactive and limit funding for training, terrorist intelligence, and new operations. At the transnational level, proactive measures lead to a free-rider incentive, whereby a commonly targeted country is better off if another country assumes the considerable costs to weaken the terrorist group through proactive measures. If, however, all at-risk countries sit back and wait for others to act, then all countries are worse off. This
outcome is particularly likely when no country is singled out for more attacks, so that there is no country that may gain disproportionately from confronting the terrorists.

**Incident Shock: Civilian Response**

After a major terrorist incident, citizens in a liberal democracy feel insecure. One manifestation of this insecurity is an enhanced willingness to trade away civil liberties for security. After 9/11, the public generally accepted the USA PATRIOT ACT, which greatly reduced privacy and civil liberties by expanding electronic and oral communication surveillance, increasing border checks, augmenting money transfer scrutiny, and reducing the statute of limitations on some terrorist offenses (Enders and Sandler 2006a, 226–227). Suspected terrorists could be treated as enemy combatants and incarcerated indefinitely without charges being brought. After the shoe-bomber incident, airline passengers did not make a fuss about removing their shoes. Following the liquid bomb plot to blow up trans-Atlantic flights in August 2006, airline passengers sacrificed liquid containers over a certain size. The Christmas 2009 bomb attempt to destroy a Northwest Airlines plane landing in Detroit highlights this tradeoff of civil liberties and security. After the incident, many travelers indicated a willingness to give up an essential right of privacy—not to be seen unclothed by strangers monitoring full-body scans. To understand this resulting acceptance of reduced liberties after a large-scale terrorist attack, the author applies some microeconomic choice-theoretical modeling. Despite its simplicity, the model is able to conceptualize the consequences of shocks and policy changes.

In Figure 1, a society’s hypothetical indifference map is drawn that displays how a society is willing to trade off terrorism risks for civil liberties. Only four representative indifference curves, numbered 1 to 4, are displayed, even though there is an indifference

![Figure 1. Indifference map for terrorism–civil liberties tradeoff.](image-url)
curve through each and every point. This tradeoff is between a bad (i.e., expected terrorism damage) and a good (civil liberties). In Figure 1, consider indifference curve 4, which depicts all combinations of expected terrorism damage and civil liberties (e.g., bundles $a$, $c$, and $e$) that provide the same level of societal satisfaction. The indifference curve is upward sloping because society will accept greater terrorism risks only when compensated by fuller freedoms. The concavity of the indifference curve indicates that, for equal increases in civil liberties ($ab = cd$), society is less tolerant of expected terrorism damages as these damages rise. This also implies that a free society is willing to sacrifice its freedoms (move from $e$ to $c$ to $a$) when larger decreases in terrorism result. As the level of terrorism increases, society is less accepting of more terrorism so that at point $e$, an increment of civil liberties will be associated with less acceptance of further terrorism than at, say, point $a$. The arrows in Figure 1 show the direction of increasing satisfaction—society’s well-being is rank ordered as follows: $4 > 3 > 2 > 1$ in terms of the indifference contours. This is because indifference curves in the southeast direction have reduced terrorism risks for each level of civil liberties, so that the level of well-being is greater. The steepness of the indifference curves reflects the tastes of society to trade off security for freedoms. A society fearful of losing its freedoms displays a steep indifference curve so that it is accepting of more terrorism for each increase in civil liberties than is a less-fearful society.

Next, the article turns to the terrorism–civil liberties constraint $AB$, displayed along with three indifference curves in Figure 2. The position of the constraint assumes a given level of counterterrorism and terrorists’ innovations. As shown later, changes in either the level of counterterrorism or the technologies and logistics of the terrorists will shift the position of the constraint. The birth and death of terrorist groups can shift the constraint up and down, respectively. At a given point in time, all choices on or above $AB$ are feasible, but tradeoffs below $AB$ are infeasible. Unlike the taste curves, there is only one constraint at a time that is determined by environmental, political, legal, counterterrorism, and strategic considerations. This constraint has the opposite convexity to that of the indifference curves.

![Figure 2. Social equilibrium.](image-url)
and indicates that, for each increase in civil liberties, society is exposed to ever more terrorism (Enders and Sandler 2006a; Li 2005). Civil liberties come at a “cost” in terms of freer media, freedom of association, freedom of speech, greater information, enhanced ability to acquire arms, and greater due process, all of which are conducive environments for terrorists to operate in (Eubank and Weinberg 1994; Hoffman 2006; Wilkinson 1986, 2001). Liberal democracies are “target-rich” environments for terrorists. In Figure 2, the social equilibrium, where taste tradeoffs match feasible tradeoffs, is at point $E$ with $0De$ expected terrorism losses and $0Ce$ civil liberties.

In Figure 3, the likely impact of 9/11 on civilian tradeoffs is depicted. The initial equilibrium is at $E$, where a representative indifference curve for this society’s tradeoff is depicted. Other indifference contours, not shown, would have this basic slope and concavity. After 9/11, both the constraint and indifference map would have changed. The constraint shifted up to the northwest from $AB$ to $CD$ so that for any given level of civil liberties, society must now tolerate greater potential terrorism damages owing to the demonstration effect of 9/11 and an improved understanding by society of the now enhanced risks. The minimum amount of terrorism (associated with the absence of any civil liberties) became greater than $0A$ at level $0C$. Moreover, $CD$ is steeper than $AB$ for each level of civil freedom, indicating that any increment to these liberties is associated with more terrorism risk. Because society was traumatized by a 9/11-type incident, society would be less willing to take on increased terrorist risks for each increase to civil liberties. Each indifference curve in the post-9/11 indifference map is consequently flatter than before the spectacular incident.

Accounting for changes in both the constraint and tastes, the social equilibrium moves from $E$ to $F$ in Figure 3, where the lowest feasible indifference curve is tangent to the constraint. In the process, society will likely accept more terrorism risk by necessity and possess much less civil liberties—clearly, the case after 9/11 or after extended terrorist campaigns. If tastes do not change, then the new equilibrium could be at $G$ with less losses to civil liberties. The willingness of a society to sacrifice freedom for security results in greater demands for homeland security and proactive measures. It also results in PATRIOT
Acts, identity cards, and greater surveillance. In many ways, large-scale terrorist incidents negatively affect the well-being of society even when the terrorists do not receive their demands. Similar shifts to the constraint change depicted would occur if new terrorist groups surfaced that raise the threat to society.

Most societies are not made up of a single set of tastes but may include diverse groups, some that are less willing to trade away their civil freedoms for enhanced security against further terrorist events. Groups that have been subjected to racial profiling are particularly reluctant to accept such tradeoffs (Davis and Silver 2004; Viscusi and Zeckhauser 2003).

In Figure 4, two groups are assumed, each of whose tastes are indicated by a representative indifference map. Prior to 9/11, the constraint is again $AB$. Group 2 is less willing than Group 1 to sacrifice liberties for security; hence, the pre-9/11 equilibrium is at $E$ for Group 1 and $F$ for Group 2. At $E$, Group 1 gets fewer civil liberties and less terrorism than Group 2 receives at $F$. Following 9/11, the equilibrium for Group 1 moves to $G$, while it moves to $H$ for Group 2. The resulting equilibrium before and after 9/11 depends on the relative political clout of the two groups. If Group 1 is in the majority, then $G$ or positions near to it are anticipated after the terrorism shock. Obviously, the minority may suffer greatly from society’s reaction to the terrorist attack. Spectacular terrorist events may create political rifts between cohorts of voters. No matter how the final equilibrium plays out, freedoms will be lost and there will be a stronger mandate to address the terrorism threat through defensive and proactive measures. As shown later, the proactive mandate tends to be stronger for domestic terrorism.

Next, the study allows for an improvement in counterterrorism in Figure 5. In particular, suppose that a terrorist group is neutralized through arrests, or else large-scale defensive measures are put in place. Both of these developments will shift down the tradeoff constraint from $AB$ to, say, $CD$. In so doing, the equilibrium will move from $E$ to $F$ where both civil
liberties and security (less anticipated terrorism) are achieved. Thus, the simple tradeoff is entirely consistent with improved counterterrorism increasing civil freedoms and curbing terrorism. An important rationale for counterterrorism is to lessen the liberty–security tradeoff abroad where its people and property are at-risk from transnational terrorism owing to sovereignty concerns. This lack of influence is apt to curtail counterterrorism measures abroad, a common theme in this article.

Incident Shocks: Government Response and Domestic Terrorism

The article now turns to the supply side in terms of counterterrorism policies. The first case is a domestic terrorist organization that may attack anywhere within the country, displaying no particular preference for a specific region or set of targets. Thus, all residents assume an equivalent risk. In this scenario, proactive measures to weaken the terrorists are purely public goods providing nonrival and nonexcludable security benefits countrywide. If a terrorist group is weakened, then all at-risk persons are safer so that derived benefits are nonexcludable. Proactive measures’ benefits are nonrival because these benefits do not decline as more potential victims share the safer environment. These benefits are known as positive externalities. In contrast, defensive measures deployed by one region will merely transfer an intended attack to a less-protected region. The associated transference costs are negative externalities. A central government is uniquely positioned to internalize the positive externalities of proactive measures and to internalize the negative externalities of defensive measures (Sandler and Arce 2003; Sandler and Lapan 1988). Without a central government, local governments are anticipated to underspend on proactive responses and overspend on defensive measures (Sandler and Siqueira 2006). The defense overspending is analogous to arms races, pollution transference, or resource exploitation in a commons.

Not only can the central government address both externalities but it can also choose the proper mix of defensive and proactive measures. Sovereignty gives the central government the power to coordinate counterterrorism actions throughout the country over security

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**Figure 5.** Influence of increased counterterrorism.
matters. Proactive responses are stock decisions, while defensive actions are flow decisions. Once sufficient proactive measures are taken to eliminate or severely weaken the terrorist group, the continual spending (a flow) on defense is greatly reduced until the next terrorist group surfaces (Bandyopadhyay and Sandler 2011). In many ways, the central government can eliminate complementary market failures by spending an adequate amount on proactive measures. Since the mid-1980s, examples in Belgium, Italy, France, Portugal, Turkey, Germany, Sri Lanka, and Japan demonstrate that central governments can be quite effective in deploying the proper mix of proactive and defensive actions following domestic terrorist crises (Alexander and Pluchinsky 1992; Hoffman 2006; Pedahzur 2005; White 2003).

Case 2 concerns a domestic terrorist group with a proclivity for attacking a specific region (e.g., Euskadi ta Askatasuna (ETA) focusing violence initially in the Basque region of Spain). If the attacks pose little risk or threat for other regions, then local authorities may have difficulty in gaining central government’s assistance. These localized attacks can lose commerce, tourism, and investment capital for the at-risk region to other regions (Abadie and Gardeazabal 2003; Gaibulloev and Sandler 2008). If, however, the region takes sufficient defensive measures to harden potential targets to curb economic losses, then the terrorists may transfer attacks to other regions to publicize their cause. In the 1980s, ETA shifted attacks to coastal areas to divert tourists away from Spain (Enders and Sandler 1991). As this transference occurs, the central government is motivated to take an active role. Some regional terrorist groups target federal officials, police, or the military, thereby making their threat a countrywide concern. Other domestic terrorist organizations may start to target foreigners or their interests in a bid to gain greater publicity. As targeting escalates, the central government will become involved, which serves to internalize the externalities associated with defensive and proactive countermeasures. Thus, such escalation shocks at the domestic level ultimately work against the interests of the terrorists as a more appropriate mix of counterterrorism policies are deployed by the central government, which is uniquely positioned to correct the associated counterterrorism externalities.

Transnational Terrorism Shock

When a transnational terrorist group targets multiple countries, targeted nations typically work at cross-purposes in supplying counterterrorism (Arce and Sandler 2005; Sandler and Lapan 1988). The intuition behind this statement is first indicated with some two-nation games in normal or matrix form. In Figure 6, Matrix $a$ depicts a proactive decision for nations 1 and 2, targeted by the same terrorist group—ANO in the 1980s or Al Qaeda in the 1990s and beyond. Nation 1 is the row player whose payoffs are listed on the left in each cell, while nation 2 is the column player whose payoffs are listed on the right in each cell. Each nation has two strategies: provide no proactive response or provide a uniform level of proactive response. A proactive response confers a benefit of 6 to each nation, since its action weakens a common terrorist threat at a cost of 9 to the nation doing the action. Let $b_i$ denote the benefit that country $i$ receives from the action, and let $c_i$ indicate the cost paid by provider $i$. Given the public nature of proactive measures, both countries receive $b_i$ from country $i$’s measures. If neither nation confronts the terrorists, then the nations’ net payoffs are 0. If, however, only nation 1 responds, then it receives $-3 (= 6 \times 9)$ and nation 2 gains 6 from its free ride. Payoffs are reversed when roles are reversed. Mutual proactive measures result in each nation gaining 3 ($= 2 \times 6 - 9$). This follows because each country’s proactive response confers 6 in benefits to both nations; thus, each nation gains 12 prior to covering its own provision cost of 9. Proactive measures against a common terrorist threat are a pure public good with a Nash equilibrium whose payoffs are...
boldfaced, where no action is taken. This equilibrium is reached when each country plays its dominant strategy. At the Nash equilibrium, neither nation will unilaterally change its strategy if given the opportunity since $0 > -3$ for both players.

Although this underprovision outcome is likely, other outcomes are feasible, as shown in Matrix $b$, where the benefit from individual action $b_i = 12$ outweighs the associated cost, $c_i = 9$. In Matrix $b$, free riding is attractive with a payoff of 12, but mutual action is even more desirable with a payoff of 15 ($= 2 \times 12 - 9$). Now, the Nash equilibrium
is for both nations to go after the terrorists for mutual gains of 15. Another scenario is for \( b_1 > c_1 \) and \( b_2 < c_2 \) so that nation 1 has an incentive to challenge the terrorists while nation 2 does not. This latter scenario is indicative of a prime-target nation that absorbs most of the consequences of the attacks, so that its derived benefits from weakening the terrorists is greater than that of other countries. After 9/11, the two most proactive nations in Afghanistan were the United States and the United Kingdom, which sustained by far the most casualties from 9/11. Other considerations that can induce a nation to engage in proactive measures are proactive efficiency (lower \( c_i \)) and greater interests abroad (higher \( b_i \)) (Bandyopadhyay and Sandler 2011). Despite these exceptional cases, most nations will view \( b_i < c_i \), thereby resulting in too little proactive measures against a common terrorist threat. This is particularly true if sovereignty concerns raise the cost of proactive measures on foreign soil. Transnational terrorists often locate in far-away, failed states where power projection is costly, thereby raising \( c_i \). Terrorists gain a strategic advantage by targeting multiple countries. This advantage can be lost if the terrorists single out some countries for more attacks, because these countries will then take offensive measures and overcome the free-rider problem as its perceived benefit from action outweighs the associated cost.

Next, the article turns to the two-nation defensive decision, in which nations are interested in shifting the attack abroad. In Matrix \( c \) in Figure 6, each nation can defend its borders at a cost of 6. Isolated defensive measures result in a benefit of 9, prior to the deduction of costs. If nation 1 defends alone, then it gains 3, while nation 2 loses 6 as it absorbs the attack. Mutual defensive action results in losses of 3 as defense is inefficient (a deadweight loss), insofar as the group is determined to attack some country. This game example can be fine-tuned by differentiating the cost of defense from the cost of being the soft target. Moreover, mutual defense may limit losses somewhat so that the net payoff can be \(-2\) or \(-1\). Nevertheless, the Nash equilibrium remains at mutual defense. The likely outcome is overprovision of defense as nations try to shift the attack abroad. This tendency can be attenuated if a nation has assets—people or property—abroad, since transferring the attack may have negative consequences to a country’s interests (Sandler and Siqueira 2006).

In Matrix \( d \), the scenario is changed so that defense cost is now 12, which is also equal to the damage inflicted on the soft target. As the payoffs show, there are now two pure-strategy Nash equilibriums: mutual defense and no defense. Without explicit coordination, each country may still defend even though doing so alone has a negative return. This example aptly highlights the dilemma faced by mutually targeted countries that do not coordinate their actions. There is an inherent tendency to spend too much on defense. Sovereignty reinforces the defensive dilemma because nations have the authority to make their own defensive decisions even when they have negative consequences for others, consistent with these games.

The two-nation proactive example is extended in Matrix \( a \) of Figure 7 to a six-nation case. The game is symmetric so that representative country \( i \)'s payoffs are listed in the various cells for the alternative contribution scenarios. The top row allows country \( i \) to be a free rider. When country \( i \) free rides (i.e., takes no offense against the terrorists) and no other country takes on the terrorists, \( i \) receives 0. If one country confronts the terrorists, then \( i \) receives 6 from its free ride. For every proactive country, \( i \) receives 6 in benefits, so that three proactive countries result in a payoff of 18 (= 3 \times 6) for country \( i \). In this stylized example, benefits from proactive measures are cumulative in a simple summation fashion, with every proactive country giving 6 in benefits to the other countries. The other entries
in the top row of Matrix \( a \) are computed in a similar way. In the bottom row, country \( i \) is proactive along with some subset of the other five countries. If country \( i \) acts alone, then it receives \(-3 (= 2 \times 6 - 9)\). The other payoffs are calculated analogously.

In Matrix \( a \), the dominant strategy is for country \( i \) to do nothing, because the payoffs in the top row are higher by 3 than the corresponding payoffs in the bottom row.\(^7\) As every nation plays its dominant strategy, the Nash equilibrium of no action results.\(^8\) The social optimum with a total payoff of 162 \((= 6 \times 27)\) follows when every country takes a proactive stance against the terrorists.\(^9\) There is no other combination of active and inactive countries that offers a higher total payoff. This game is a classic \( n \)-player Prisoner’s Dilemma with suboptimal proactive provision that worsens with group size. A group of six loses a gain of 162 by not acting, while a group of seven loses a gain of 231 \((= 7 \times 33)\).

Matrix \( b \) in Figure 7 permits there to be a group of four nations whose benefits from proactive measures exceed the associated costs, so that \( b_i > c_i \). The entries in the cells are calculated as before. In the top row, country \( i \) receives 12 for each proactive country; in the bottom row, country \( i \) receives 3 from acting alone. If one, two, or three other countries join \( i \)’s action, then country \( i \) receives 15, 27, or 39, respectively, where each additional participating country provides \( i \) with another 12 in benefits. For this second group of nations, the dominant strategy is for each of the four nations to be proactive against the common terrorist threat, because the payoffs in the bottom row are larger than the corresponding payoffs in the top row. As such, the Nash equilibrium payoff of mutual action earns each nation the boldfaced payoff of 39. These nations are likely to be prime-target nations that have the most to gain from offensive measures to weaken the transnational terrorists. Nations with significant foreign interests may also realize a benefit from confronting the terrorists that exceeds the associated costs.
Next suppose that there are ten nations—six abiding by the payoffs in Matrix $a$ and four abiding by the payoffs in Matrix $b$. The equilibrium will have the first six nations doing nothing and the other four taking action. This latter action will confer benefits of 24 ($= 4 \times 6$) onto the first group of nations so that every payoff in Matrix $a$ is greater by 24 (not shown). Nevertheless, these six nations will have a dominant strategy to do nothing, since entries in the top row still exceed those in the bottom row by 3. Thus, the Nash equilibrium remains at no action for these six nations. Insofar as these six nations’ equilibrium offers no payoffs to the four proactive nations in the second group, the Nash equilibrium for the latter remains at mutual action as in Matrix $b$.

A shock like 9/11 can divide at-risk nations into two camps: those not taking and those taking proactive measures. The latter are those nations where there is a net gain from acting alone. Following 9/11, the subset of proactive nations were those that suffered the most from the four hijackings. Although many nations gained from the U.S.-led invasion of Afghanistan to weaken Al Qaeda and its Taliban supporters, relatively few nations actually engaged in the proactive mission in a combat role. This agrees with the stylized game depicted in Figure 7. To put its soldiers in harm’s way, a nation must anticipate large expected benefits that more than compensate for the associated costs, which include the political consequences if the mission drags on or is unsuccessful. Nations assumed different roles in the Afghan invasion—some provided soldiers, others supplied logistical support, and still others only gave political or moral support. The more active role was taken by those countries most threatened by Al Qaeda. Much less multilateral support was given for the U.S.-led invasion of Iraq since no clear terrorist link was established prior to the invasion.

Proactive support against a common terrorist threat is much easier to achieve among neighboring countries, confronted with a common transnational terrorist threat. Even Cuba and the United States signed an anti-hijacking treaty in 1973. After a plague of hijackings on the east coast of the United States to Cuba during the early 1980s, Fidel Castro announced that future skyjackers would receive a 40-year jail sentence, which curbed these skyjackings (Enders, Sandler, and Cauley 1990; Mickolus, Sandler, and Murdock 1989). France and Spain worked together to arrest ETA terrorists in the 1980s. The enhanced ability of neighboring countries to respond to terrorist shocks in a constructive manner is due to low transaction costs and relatively high anticipated benefits.

The defensive game can also be generalized to an $n$-country situation based on Matrix $c$ in Figure 6, which is left to the reader as an exercise. The resulting Nash equilibrium has countries spending too much on defense. Thus, a transnational terrorist shock leads to an overly guarded world that remains unsafe, because the terrorists are not collectively challenged by targeted nations. Matters are made worse because the proper mix and sequence of proactive and defensive measures are not taken.

**Transnational Response**

Unlike responses to domestic terrorist shocks, international responses to transnational terrorist shocks are anticipated to be inadequate with too much spent on defensive actions and too little spent on proactive measures. For a large-scale attack with casualties from many countries, there will likely be a coordinated proactive response, orchestrated by the country with the greatest losses. In terms of defense, large terrorist attacks motivate target nations to augment homeland security, thereby inducing terrorists to move future attacks to soft-target countries. After 9/11, terrorists shifted attacks from Europe to the Middle
East and Asia. U.S. and other prime-target countries’ assets were now hit in softer venues (Enders and Sandler 2006b).

There are other nonstrategic considerations, such as sovereignty, that reinforce the ability of countries to respond more adequately to domestic terrorism. Cultural similarities provide countries a unity of purpose in fighting domestic terrorism that may be absent when confronting a common transnational terrorism exigency. Constitutional constraints may also inhibit countries from confronting transnational terrorists and their state sponsors. Some countries’ constitutions (e.g., Japan) forbid the deployment of troops to foreign soil in a combat role. After 9/11, Japanese troops served only in a logistical capacity in the U.S.-led invasion of Afghanistan. Often, foreign deployment of troops requires legislative approval, whereas police action at home against terrorists requires no such approval.

There is one bright spot in terms of multilateral reaction following 9/11. INTERPOL developed databases on Stolen and Lost Travel Documents that can be accessed by member countries’ officials at border crossings and elsewhere. Terrorists commonly use such documents when traveling internationally. INTERPOL has also coordinated the arrests of suspected terrorists by issuing arrest notices and alerts to member countries over secure communication links. In a recent study, Sandler, Arce, and Enders (2011) computed the benefit-cost ratios of INTERPOL’s successful efforts to coordinate member countries’ law-enforcement resources to arrest suspected terrorists. These authors found that each dollar of INTERPOL costs had an average payback of $200, based on the benefits associated with INTERPOL-assisted arrests. To translate this arrest data into a benefit measure, the authors associated arrests with reduced terrorist incidents under alternative counterfactual assumptions. These reduced incidents were then converted to a benefit measure by valuing lives, injuries, and gross domestic product (GDP) saved from fewer terrorist incidents. The use of INTERPOL to coordinate arrests among countries has a number of advantages. First, unlike military operations, arresting terrorists may result in little backlash response by terrorist supporters, since new grievances are not necessarily created. Second, member countries use their own law-enforcement resources in making arrests so that little or no autonomy is sacrificed to a supranational organization. Third, INTERPOL linkages are relatively cheap compared to other proactive responses. The annual expense of INTERPOL’s counterterrorism efforts was less than $17 million in 2007, compared with tens of billions of dollars spent on military operations (Sandler, Arce, and Enders 2011).

The one drawback of INTERPOL is that not all member countries participate in the available linkages. But this limited participation will change with time as terrorists shift attacks to softer venues, thereby increasing the benefits for some countries to participate in INTERPOL’s technology-based linkages. Participation may be enhanced if rich member countries subsidize the acquisition of the necessary technological linkages by poor countries. Because rich countries benefit as more countries utilize INTERPOL’s linkages, the former are motivated to subsidize the latter.

What Does It Take to Mount a Coordinated International Response?

Nations will not launch a coordinated international response with the appropriate mix of proactive and defensive measures to a common terrorist threat until a terrorist shock far greater than 9/11 occurs. Moreover, such a shock must present ongoing risks to an even larger set of countries than that associated with 9/11. Conventional terrorist attacks are unlikely to cross this threshold; however, chemical, biological, nuclear, or radiological terrorist attacks may, someday, achieve the threshold. Greater international cooperation will ensue when the terrorist threat is more diffused and not primarily directed at relatively few
prime-target countries (e.g., the United States, Israel, the United Kingdom, and France) and their assets.\textsuperscript{11} Thus far, transnational terrorists have been advantaged by countries working at cross-purposes as they rely on defense in an effort to transfer terrorist attacks abroad. Increased globalization decreases the benefits of this reliance because more countries have vital interests overseas. Terrorists will lose their strategic advantage as their attacks become more diffused and severe. Countries will then be more motivated to coordinate their response.

**Concluding Remarks**

This article is a conceptual piece that applies some microeconomic and game-theoretical tools to explain some puzzles. In particular, the article shows how counterterrorism policies and large-scale terrorist incidents (i.e., terrorism shocks) can affect citizens’ tradeoffs between their civil liberties and terrorism risks. Terrorists’ innovations may induce citizens to accept greater constraints on their freedoms that they were previously unwilling to accept. When citizens’ tradeoffs between civil liberties and security are diverse, the majority’s tradeoff will be adopted. In addition, the analysis indicates how strategic considerations make it more difficult for countries to address transnational terrorism when compared with domestic terrorism. Sovereignty considerations bolster this relative difficulty to curb transnational terrorism. Numerous examples are given for illustration.

**Notes**

1. On the terrorist groups mentioned in the introduction, see Alexander and Pluchinsky (1992), Schmid and Jongman (1988), U.S. Department of State (2003), and White (2003). Bloom (2005), Pape (2005), and Pedahzur (2005) present excellent discussions about transnational terrorist groups (e.g., Islamic Jihad, PKK, and Tamil Tigers) that engage in suicide missions.

2. This territorial control is not true in weak or failed states, nor is it the case for countries confronting an insurgency.

3. The legitimacy of a liberal democracy rests, in part, on the protection of its people and property. Terrorist campaigns can call into question this legitimacy if the government is unable to control the carnage (Wilkinson 1986, 2001).

4. In Figure 4, each displayed indifference curve is indicative of Group 1’s or Group 2’s tradeoffs before and after 9/11. Each of the four curves is representative of an indifference map, whose component indifference curves are radial blow-ups and contractions of the depicted contour.

5. Positive (negative) externalities are benefits (costs) conferred on a third party without compensation being paid to the generator (recipient) of the externalities. An externality is “internalized” when compensation is paid.

6. A dominant strategy provides a country with greater payoffs than its other strategy regardless of the actions of the other country. In Matrix $a$, the payoffs in the top row are greater than the corresponding payoffs in the bottom row (i.e., $0 > -3$ and $6 > 3$). This is also true for column player’s payoffs in the left-hand column, compared with the right-hand column payoffs. Thus, both countries have a dominant strategy.

7. For an $n$-player game, the dominant strategy gives a country larger payoffs than its other strategies regardless of the actions of the other countries.

8. This is a Nash equilibrium because no nation would want to become proactive unilaterally. This follows because the payoff of 0 exceeds –3, which is the payoff of a unilateral proactive response.

9. The social optimum results in the largest sum of payoffs for the player collective.

10. This is not always the case. Arrests of Baader-Meinhof Gang leaders in the 1970s resulted in many terrorist incidents in West Germany and abroad to obtain their release (Alexander and Pluchinsky 1992). Backlash also followed the arrest of Öcalan, the leader of PKK, in Kenya on 15...
February 1999 (White 2003). There was also worldwide condemnation of U.S. use of the Guantánamo prison for the indefinite holding of “enemy combatants.” Backlash is less likely when operatives are arrested en route to intended terrorist incidents. It is, however, essential that the rights of those arrested are maintained if new grievances are not to follow.

11. In recent years, Al Qaeda and its affiliates have focused on Saudi Arabia, Pakistan, India, Yemen, Jordan, Egypt, and elsewhere. However, unlike the examples mentioned in the text, terrorist groups do not typically attack these second-tier target countries’ interests abroad. That is, Saudi Arabian interests are attacked at home. Such countries rigorously pursue the terrorists at home, but not abroad, which limits their participation in international cooperation.

References


