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Terrorist incidents have occurred in the United States and around the world for centuries. Tax revolters, anarchists, war protesters, and other critics of government policy have often used violence to send messages to the policymakers controlling the issues of interest. The attacks of September 11, 2001, for example, have been widely interpreted as a comment on U.S. policy toward the Islamic world, especially U.S. policy in the Middle East. Indeed, terrorist attacks might be defined as violence for the purpose of sending a political message with the aim of influencing policy or at least of voicing disapproval. In this sense, terrorism is one possible method of “political dialogue.”

Even when political analysts do not share the goals of terrorist groups, they may defend the use of violence as a method of sending messages because of the political nature of the message sent. After all, political messages and popular protests receive special protection in all liberal democracies, and civil disobedience has often generated improvements in government policies. The conjunction of the “political message” explanation of terrorist actions and a “free speech” justification of those actions clearly resonates with some proponents of popular resistance, but it is nonetheless a bit puzzling for most proponents of free speech. Those who advocate the former explanation might argue that the United States brought the recent

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attacks on itself by various foreign-policy mistakes made over the years. Most proponents of free speech will reject this conclusion as a justification for terrorism, but they have not yet found a clear line of argument with which to respond to it.

If terrorism is the organized use of violence to transmit “political messages,” then a good deal about terrorist networks and activities can be understood by using the same models used to explain the existence and behavior of ordinary policy-advocacy groups. The basic mathematics of ordinary interest-group and terrorist “contests” are similar to those of ordinary competitive contests or rent-seeking games. Both terrorist networks and ordinary political-interest groups attempt to exert disproportionate influence on controversial public policies. The likelihood and the degree of success of their efforts increase as the resources devoted to exerting “influence” expand and decline with opponents’ efforts to resist their aims, other things being equal. To the extent that participants are rational, institutional arrangements that change the probability of success among alternative methods of influence affect the level and allocation of group efforts across those methods. Terrorism is simply another method that groups may use to influence government decisions—another form of interest-group politics.

Moreover, terrorism and ordinary interest-group politics have normative similarities. In both cases, the direct participants in the conflict over the public policy bear costs. All politically active groups employ scarce resources in order to induce or avoid certain changes in public policy. To the extent that the resources used by opposing interest groups largely offset each group’s efforts, each side might have reduced its efforts in a manner that would have left the policy outcome the same but would have freed resources for other, more productive uses. The more resources invested by those involved in such political conflict, the larger are such avoidable losses (what public-choice scholars call the deadweight loss or rent-seeking losses). The same reasoning applies to both ordinary interest-group politics and terrorism.

In the first half of the article, I explore why governments always treat terrorism differently from ordinary interest-group politics in spite of their similarities. Although the political aims of terrorism (and other forms of policy-motivated resistance) clearly resemble those of ordinary interest groups in their efforts to draw attention to specific policy issues, the two methods of political action differ significantly in their normative properties.

In the second half of the article, I consider the extent to which these differences justify substantially different public policies toward interest groups that use terror to promote their political and social agendas. The desire to transmit a policy message cannot justify the use of any and all methods for attracting widespread attention to that political message. However, the differences are not so large as to justify any policy that might potentially reduce future terrorism. Indeed, my analysis suggests that we have grossly overreacted to the current terrorist threat by focusing too much attention on worst-case scenarios and by paying insufficient attention to the historical record of terrorist attacks in the United States and around the world.
My purpose is to provide clearer logical and economic foundations for many of our moral intuitions regarding terrorism as a method of political speech and hence to explain why terrorism should be, as it is, an illegal mode of political speech in all civilized countries. Appropriate efforts to reduce terrorist acts depend in part on the nature of the damages from those acts and in part on the threat of damages that might be caused by terrorist groups in the future. In addition, the appropriate level of resources devoted to antiterrorism depends on the probability and the extent of those damages relative to the probability and extent of other kinds of damages that might be affected by public policy. Benefit-cost analysis suggests that the antiterrorism policies now being implemented are excessive, given the risks that we face.

I employ ideas and models from the public-choice, crime-control, and risk-management literatures to carry out my positive analysis. I apply the economist’s stock in trade, cost-benefit analysis, to develop the normative analysis. In using cost-benefit analysis, I do not mean to imply that all relevant costs or all benefits can be monetized, measured, or even imagined. I employ these familiar tools because no others so effectively clarify one’s thoughts, provide such a transparent and systematic analysis, or allow such sharp and plausible policy conclusions.

Some Forms of Political Competition Are Better Than Others

Competition and conflict take many forms. Most games of conflict generate avoidable losses for the participants because they consume too much time, energy, and material. The logic is straightforward. As the efforts of other participants in a game of conflict increase, each player’s own probability of winning the prize of interest declines—whether that prize be money, status, or new public policies. In most games of conflict, competitive efforts largely offset each other, insofar as winning the contest depends on relative rather than absolute effort. Consequently, a small reduction in each player’s effort will not materially affect the outcome of the game. Reduced conflict frees resources for other uses; thus, most games of conflict generate avoidable losses for all participants. Unfortunately, the competitive nature of the conflict also makes it impossible for any single competitor to realize those savings unilaterally without reducing the chance of winning. Once started, the overinvestment of resources in competitive games of conflict can continue indefinitely.

Fortunately, not all competitive contests generate net losses for all parties. As several authors, including me, have emphasized, the social losses differ in different forms of competition.1 This difference arises not because the nature of the contests differs significantly for the players, but rather because different forms of conflict

1. See, for example, Tullock 1967 or Congleton 1980 and 1989 for introductions to the distinction between productive and counterproductive forms of competition. Knight 1992 provides a more recent and extensive discussion. See Hirshleifer 2001 for an entertaining overview of the economics of conflict.
impose different costs and benefits ("externalities") on others largely outside the
game.

For example, a modern sporting event calls forth enormous effort from a hand-
ful of competitors, who may devote most of their waking hours to perfecting skills
that have little or no value in themselves. Although the relative positions of the com-
petitors are in large part the result of extraordinary efforts to perfect certain skills,
approximately the same relative positions will result if each of the competitors reduces
his training by half. Nonetheless, many families and governments around the world
courage extraordinary investments in most of these sports because millions of spec-
tators thoroughly enjoy the amazing performances of these "overly" skilled athletes as
they watch the games in which those skills are demonstrated.

Within the political sphere, many forms of competition are also productive on
the whole. Most participants in the great political games played in every nation make
lifetime investments in glad-handing, grooming, public speaking, policy spouting,
and networking, and, as in sporting events, competition among highly trained oppo-
nents in public forums provides entertainment for millions. Besides the entertain-
ment value, policy contests among political candidates or interest-group advocates often
provide voters and other spectators with a good deal of useful information about pol-
icy alternatives, political parties, and candidates—not all of which is spoken by those
actively engaged in the policy forums or in competition for elective office. Electoral
competition allows voters to reward and punish those who have made convincing or
facile arguments—a system that generally leads to better public policies than do non-
competitive methods of choosing policies.

The informational component of political conflict is important; indeed, it is so
important that liberal political constitutions generally include special provisions,
such as the First Amendment to the U.S. Constitution, to protect the dissemination
of policy-relevant information. Political speech is privileged because among an edu-
cated electorate the most persuasive arguments normally rest on sound analysis and
good information: solid common sense, scientific or engineering studies, careful
geopolitical analysis, and informative polls of expert and voter opinion. Developing
and communicating the fruits of careful policy or character analysis clearly provide a
good deal of free and useful information that makes the "spectators" (voters, repre-
sentatives, bureaucrats, and so on) more aware of facts and talents that are relevant for
making policy decisions.

The resources that participants invest in such policy debates are not wasted in the
usual sense of a rent-seeking contest because indirectly they cause voters to demand
and the legislature to promulgate better policies. Informative policy debates create a
positive external benefit that is generally larger in the aggregate than the value of all
the resources invested by those participating in the debate.

Of course, not all efforts at political persuasion involve the dissemination of
unbiased, useful, or even factually accurate information. Arguments based on exist-
ing or manufactured myths, distorted reasoning, or emotional appeals often appear to be persuasive, although they are not truly informative. In effect, such arguments reduce rather than increase the quality of information available to individuals who make policy decisions, whether in their roles as voters, regulators, or legislators. (The social security “lock box” is a good recent example in the United States. A lock box actually exists, but there is nothing substantial inside it.) The nominal informational “base,” measured in arguments heard or words read, increases, but unless recipients properly filter out the biases and contradictions, the useful informational base decreases, and policy mistakes become more likely as a consequence. Such policy debates generate external harm rather than benefit. If ordinary persons are routinely misled by specious arguments, the instrumental argument for free speech will be weakened. In such a society, the typical policy debate will add external losses to the usual losses from competitive conflict rather than offset those losses with external benefits.2

Beyond political debates conducted with analysis and rhetoric are “debates” in which efforts at “persuasion” rest not on arguments, whether well or poorly formed, but on threats. For example, a group of “demonstrators” may cause well-meaning policymakers to alter a public policy by threatening to impose damages on society that are greater than the long-run net benefits of the policy being attacked. In such cases, the losses from policy conflict clearly go beyond those associated with voter confusion. Either case may yield defective policies. However, all effective threats, whether explicitly demonstrated or merely implied, have to presage additional and substantial economic damages in order to be effective.

It might be argued that the implied magnitude of the threat is itself a message of sorts. The threat provides information about the intensity of the beliefs of those sending the message, and it also provides information about the future, insofar as the threats are credible. Neither sort of information, however, is itself broadly relevant to policy debate in a civil society. The intensity of policy demands is largely a matter of a proponent’s own ranking of policy consequences—an expression of what economists call tastes rather than a bit of widely useful information that might help others appraise the relative merits of the policy consequences that might lawfully follow from a given policy. The threat of disruption does affect the cost of implementing a particular policy; but not because of the information content of the threat itself. In principle, an interest group can use the same disruptive act to draw attention to objections regarding a failure or extravagance of environmental regulation, a mistaken foreign policy, or a parking ticket. The medium of terrorism is not “the message,” but rather the threat. The threatened disruptive acts are largely independent of the “policy argument” being communicated.

2. Even an informative debate can reach a point beyond which the cost of delivering the last bit of information exceeds the value of the informational gain (Congleton 1986, 1991).
The Deadweight Cost of Terrorism

Peaceful and lawful contests to influence political decision making generate three kinds of costs. First are the usual avoidable losses of any rent-seeking contest. If all contestants proportionately reduced their expenditures on “influence,” the net effect of their efforts on policy would be largely unchanged, but resources would be freed for other, more productive uses. Second are the losses associated with the method of the competition. Some kinds of competition produce external costs, the extent of which varies widely among the various methods that might be employed. Third are the losses that arise from policy mistakes induced by the degradation of the stock of policy-relevant information or from hasty decisions engendered by intense political conflict. In the short run, such policy mistakes may spring from torrents of one-sided information, from risk cascades generated by sudden dramatic events, or from a crisis mentality.

Terrorism and other destructive methods of political influence add a fourth source of damages—namely, those associated with the threat and the actuality of destructive activities. The U.S. Department of State reports that terrorists have used thousands of bombs throughout the world in the second half of the twentieth century. Since 1968, when the U.S. government began tabulating terrorist incidents, more than seven thousand bombings have taken place worldwide (U.S. Department of State 2000, 1).3

The direct costs of terrorist acts are obvious, as they must be in order for terrorism to succeed. The entire point of terrorism is to influence government policies by directly harming persons or property and, owing to the visibility of that harm, by making all those not directly affected feel worse off by evoking sympathy for victims and expectations of future harm. The terrorist’s method of influence requires dead and maimed people and ruined buildings. Its persuasive impact arises largely from the new expectations that these visible effects generate in the rest of the targeted community. The terror is in part a rational response to new knowledge about previously neglected risks and in part an overreaction induced by the emotional impact of catastrophic events. Both effects diminish the well-being of affected persons.

Beyond the direct impacts of terrorist acts are various indirect economic and political effects. First, in conventional economic terms, terrorism diminishes both the labor supply and the stock of capital, and therefore it reduces potential economic output. In the public sector, tax receipts fall, and demands for public services rise. In the case of large terrorist events, even national income accounts may register the economic losses. The “winners” obviously can never compensate the losers for their losses.

3. Both the Patterns of Global Terrorism, 1999 report by the State Department and the Terrorism in the United States report by the Federal Bureau of Investigation note that destruction of business properties rather than attacks on government facilities is the most common form of terrorist attack. Not all terrorist attacks generate fatalities or injuries, although fatalities often result. See the evidence posted at the Web addresses given for U.S. Department of State 2000 and U.S. Department of Justice 1999a.
Second, a terrorist act tends to and is intended to increase the fear of future terrorist acts, and that fear may have an even larger effect on economic activity. Increased uncertainty reduces the appeal of long-term investments relative to current consumption. It also reduces the private returns to planning and other long-term commitments. Living for today clearly makes more sense when investing for a payoff tomorrow comes to be regarded as less likely to bear fruit. All these physical and subjective effects tend to reduce long-term growth and prosperity.

Third, the perception of an increase in future terrorist risks to life and property also tends to generate other rent-seeking losses from changes in private and public behavior. An increase in perceived risks boosts demands for private and public insurance and for private and public investments to reduce the risk of future terrorism. Gordon Tullock (1967) long ago pointed out that such defensive investments are a source of the deadweight losses associated with ordinary crimes; by extension, they are also losses associated with terrorism. The attempt to avoid the “sucker’s payoff” in the prisoner’s dilemma game played by terrorists and other criminals against ordinary citizens is completely rational at the level of individuals. However, the combined efforts of ordinary citizens seeking to protect themselves from terrorism and of criminals seeking to overcome those precautions constitute a deadweight loss, even in cases in which those investments are sensible for the individuals. Nearly everyone will benefit if both sides invest fewer resources in such criminal contests.

The losses that accumulate in a society that tolerates terrorist modes of political dialogue should now be clear. As rival interest groups self-righteously destroy people or buildings in order to send their respective messages, the stock of productive human and physical capital in such a society rapidly disappears, and everyone is reduced to abject poverty. Just such an outcome has occurred from time to time throughout history. In less-extreme settings, terrorism reduces economic output and causes much of what is produced to be invested in unproductive games of conflict.4

By discouraging terrorist modes of political speech, societies can escape from such destructive political games. Therefore, all modern democratic societies punish violent and destructive methods of “sending messages” more severely than they punish other forms of political resistance, regardless of the value of the message sent.5

Of course, the terrorists themselves and other groups favoring the policy “lobbied for” may benefit from the terrorism. As in every analysis of rent-seeking contests, however, it is sufficient for our purposes to establish that less-expensive means may be used to produce the same result. Here, it suffices to identify a few avoidable losses.

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4. Less-extreme terrorist contests also tend to diminish economic prosperity. For example, Lapan and Sandler (1993) argue that terrorist attacks affect international flows of capital. They conclude that significantly less capital flowed into Greece and Spain in the aftermath of terrorist incidents.

5. This avoidable-loss case against terrorism is clearly weaker in a closed society, where terrorism may be the only method by which some groups can transmit a message. Even in such cases, however, various methods of attracting public attention differ in the harm they cause.
The losses from terrorist acts clearly can be reduced by “encouraging” less-destructive terrorist methods—say, blowing up a symbolic structure, such as the Washington Monument, rather than destroying a building occupied by thousands of people, such as the World Trade Center. In most cases, the external losses of destructive forms of political conflict can be replaced with external benefits by inducing appropriate changes in the method of persuasion that political protagonists use—without reducing civil liberties or limiting the substance of political debate. Political messages sent by ordinary legal means can be just as conspicuous and informative as those sent by violent means—indeed more broadly so—without the associated negative externalities of terrorist acts.

**Punishing Terrorists for Criminal Acts**

Once terrorist acts are classified as criminal acts, albeit motivated by political aims, it becomes clear that those acts should be punished in a manner comparable to similar crimes. All punishment of criminals is motivated in part by a desire to punish (retribution) and in part by a desire to reduce the incidence of future losses from criminal activity (deterrence). Both rationales suggest that the more damage a crime causes, the more resources it makes sense to devote to capturing and punishing the criminal, other things being equal (Becker 1968; Benson, Kim, and Rasmussen 1994; Benson, Rasmussen, and Kim 1998; Neilson 1998).

As with other crimes, the motives and potential benefits of the criminal act should be taken into account. A sailor in stormy seas may make use of a stranger’s dock without fearing the same penalties as an ordinary trespasser. Similarly, minor crimes committed with political aims are often tolerated because the transgressions impose relatively small costs on third parties. Civil disobedience serves as an especially effective method of sending a political message. The value of the political information disseminated by the unlawful activity can to some degree offset the deadweight loss of the criminal act itself. Nonetheless, most minor transgressors are punished, as demonstrated when lawbreaking citizens are trooped off to jail or other holding areas.

In the case of terrorism, the crime is often murder and the destruction of productive resources, and the benefits generated by the political message are swamped by the outrageous cost of the means used to send the message. The value of the political message sent by a major terrorist act consequently will not significantly reduce the optimal punishment of terrorists. Obviously, few, if any, political messages can justify murder and mayhem on a broad scale—especially in an open society substantially based on consent of the governed. In open societies, any political message can be

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6. Here I am considering only cases in which terrorist attacks do not significantly threaten to destroy the civil society attacked. A genuine act of war or revolution, as opposed to mere terrorism, poses a serious risk to the current government and, in some contemporary settings, to all of its citizens.
transmitted using far less costly methods; moreover, the contractual basis of those societies implies that any “revolutions” that might be initiated are unlikely to generate substantial benefits for the average member of society.\footnote{In a closed society, illegal means have to be used to send forbidden messages, essentially by definition. The illegal acts of freedom fighters in a closed society clearly differ from those of terrorists in an open society. Again, however, any illegal methods used should be broadly cost effective in the sense understood here.}

As usual, the more people killed, harmed, or placed at risk, the greater is the crime and the greater is the appropriate punishment for a given probability of capture and conviction. Moreover, just as the punishment for ordinary murder committed by a team is not limited to the team member who actually pulls the trigger, the proper scope of punishment for terrorist acts extends well beyond those directly engaged in the acts. Each person in a terrorist network increases the probability that the terrorist project will be successful. (Otherwise, if terrorists are rational, the network would be smaller.) To punish an entire terrorist network for mass murder is therefore entirely consistent with the normal logic of the law. As with other crimes, the magnitude of the punishment should take account of both the team member’s contribution to the crime’s success and the magnitude of the damages. The greater the crime, the larger the sanctions that should be placed on each member of a given organization. The larger the crime, the farther down the organizational hierarchy should strong sanctions be applied. Such rules of thumb also apply to a wide range of ordinary crimes in which cooperating criminals are routinely found and punished.

If a crime would have been impossible without a team member’s assistance, that member is equally culpable for the crime committed by the person pulling the trigger, hijacking the plane, or placing the bomb. If the probability of success is 10 percent higher as a consequence of a team member’s efforts, then he is responsible for one-tenth of the damages, and optimal sanctions tend to be smaller. However, if an upper bound on penalties exists—as might be said of a death penalty or life imprisonment—the same penalty will necessarily be imposed on persons with different culpabilities. For example, if a culpability of 50 percent warrants a life sentence for the murder of one person, a culpability of 0.05 percent will warrant a life sentence for the murder of one thousand persons. The larger the crime, the more people in a criminal organization will be subject to the maximum penalty, based either on culpability or on reductions in future crimes.

The discouragement of future crimes implies a somewhat different assignment of penalties within a terrorist organization than does culpability. A cost-effective policy to discourage crime has to consider differences in the degree to which people respond to changes in expected punishment. The ideal punishment schedule induces the very largest reduction in expected crimes for a given cost. Consequently, sanctions justified by effects on future behavior may fall more heavily on persons farther down the hierarchy of a terrorist network because those persons are less fanatical than those at higher levels. Punishment will not deter true fanatics because they have a very inelas-
tic demand for their chosen profession. Less-fanatical elements of the support network will respond more to anticipated penalties. It is appropriate, therefore, that somewhat more innocent persons are more severely punished in terrorist organizations than in ordinary criminal organizations because they are the persons most likely to respond to changes in incentives.

**Managing the Risk of Terrorism**

Besides punishing criminals, ordinary citizens and governments routinely take many other cost-effective steps to make crimes more difficult to commit. They can take similar steps to make terrorist acts more difficult to commit. Most of us lock the doors of our cars and houses in order to make it a bit more difficult for someone to steal from us. Firmly locked doors to the flight decks would have prevented the hijackers of September 11 from taking control of the airplanes. Efforts to avoid dangerous neighborhoods and to control access to weapons are common in both private and public policies toward ordinary criminals. Private organizations and governments might take similar steps to control terrorists’ access to weapons and to avoid terror-prone places.

In all these respects, the war against terrorism, to date, clearly resembles the usual “war” against crime that all civil societies conduct on a daily basis. To the extent that government programs or policies can reduce the perceived risk from terrorism and other crimes, citizens broadly will demand and democratic governments generally will assure that such programs and policies are put in place.

Many government policies can reduce significantly the damages of future terrorist acts. Efforts to bring terrorists to justice reduce the appeal of a terrorist career, which may produce worldwide benefits as well as satisfy demands for retribution. Efforts to provide or subsidize emergency support allow economies of scale in those services (and social insurance) to be realized, which reduces the cost of mitigating damages from terrorist events. Efforts to assure airport and mail security can also generate nationwide benefits for travelers and commerce.

However, as with any other effort to manage large-scale risks, the appropriate effort to discourage terrorism is not simply a matter of putting in place all the policies that might reduce the risk of damages from terrorist acts. It is also in part a matter considering the extent to which the resources being devoted to antiterrorism activities yield reductions in damages that are comparable to those of other efforts to manage public risks. Overall, the policies adopted ideally should maximize the net advantage from collective risk management across all policy areas, which requires that the last dollar spent in each area of risk management yield the same reduction in expected net damages.

The breadth and depth of potential terrorist externalities clearly exceed those of many other negative externalities, so avoiding those losses can justify stringent efforts to reduce the risks from terrorism. However, to say that many steps to discourage terrorism are worthwhile is not to say that a pound of prevention should be used to discourage an ounce of terror. Extravagant efforts to avoid minor risks can be wasteful in
a society where other, relatively more substantial risks are being assigned relatively fewer resources. It is easy to imagine cases in which antiterrorism policies involve costs that are greater than their benefits. For example, the risk of hijacking can be reduced essentially to zero by closing all civilian airports.

Indeed, it might be argued that any response to terrorism is wasteful. To allow small minorities to induce changes in policies by nonlegal means tends to erode both the legal and the constitutional framework. To the extent that liberal political institutions are relatively frail but highly productive, the effects of terrorism on the quality of life through the erosion of constitutional protections may be long lasting and substantial. Nearly any new policy adopted in response to a terrorist event undermines the constitutional framework of the polity attacked, unless voters, legislators, and relevant agencies previously and in large part ignored the possibility of terrorist attack. I am not saying that terrorist threats should be ignored, but rather that a particular terrorist event should not trigger policy changes unless the attack reveals new and important information about the likelihood or damages of future attacks.

The likelihood of excessive expenditures to curtail terrorism is, perhaps naturally, larger than in many other policy areas. To the extent that terrorists are able to induce exaggerated perceptions of the threat of terrorism—that is, to terrorize a nation’s citizenry successfully—voter demands for resisting terrorism will also be exaggerated. In economic terms, terror, nearly by definition, implies overestimates of the probability of horrific damages and the magnitude of those damages. In such cases, the public policies demanded and adopted will be more costly than warranted.

Assessing the Risk of Terrorism

A dispassionate assessment of the risk of terrorism requires that the damages from conceivable terrorist acts be weighted by their probability of occurrence. These probabilities, of course, cannot be known with certainty, but some indication of their magnitude can be obtained from the historical record. Recent history suggests, in contrast to what most of the news coverage after September 11 seems to assume, that “new” risks from terrorism in the United States are not obviously greater than many other risks.

Table 1 shows the number of casualties from terrorist attacks worldwide from 1991 to 2000, as reported by the U.S. Department of State antiterrorism division. The State Department defines terrorism as “premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience.” The term international terrorism applies to terrorism involving the citizens or the territory of more than one country. The term terrorist group means any group that practices or has significant subgroups that practice international terrorism.8

8. Data on casualties from terrorist attacks are assembled from three overlapping data sets included in the U.S. Department of State’s Patterns of Global Terrorism (1993–99, 2000, 2001).
Note first that the risk of being killed or injured in a terrorist attack in North America has been for most years significantly smaller than the corresponding risk in the rest of the world. If we do not count casualties from the attack on the World Trade Center in 1993, North American casualties were essentially zero during the period 1991–2000. No other major continent had so many years with no deaths or injuries, nor did any other continent have such a low average for the decade. The relatively low risk in North America suggests that relatively effective steps have long been in place to reduce the risk. (That low level of risk doubtless accounts in part for the trauma caused by the September 2001 attacks.) Second, note that the number of casualties caused by terrorism varied a good deal from year to year. In Africa and Asia, during the worst years (1998 and 1995) terrorist attacks caused more than 5,000 casualties. However, losses in the other years listed never exceeded 200 in Africa and 900 in Asia. These data suggest that in an unusually destructive year terrorists impose high damages, but in most years they do not. (In this respect, the terrorism-death series resembles that of tornadoes.) It is also clear that in the wake of the September 11 attack the new maximum for the United States will be comparable to that of Asia or Africa.

Overall, the risk of death or injury from terrorism worldwide is not trivial, although prior to 2001 the risk of being harmed by a terrorist attack in the United States was relatively small, possibly because of previous investments to discourage terrorist attacks.

Consider now the risk of harm from terrorist attacks in the United States relative to other risks that people confront on a daily basis (table 2). The Centers for Disease

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**Table 1: Casualties from International Terrorist Attacks**

<table>
<thead>
<tr>
<th>Year</th>
<th>Africa</th>
<th>Asia</th>
<th>Eurasia</th>
<th>Latin America</th>
<th>Middle East</th>
<th>North America</th>
<th>Western Europe</th>
<th>Total Casualties</th>
<th>Total Deaths</th>
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<td>68</td>
<td>33</td>
<td>0</td>
<td>56</td>
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<td>101</td>
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<td>0</td>
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<td>236</td>
<td>1</td>
<td>65</td>
<td>729</td>
<td>93</td>
</tr>
<tr>
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<td>135</td>
<td>1</td>
<td>66</td>
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<td>117</td>
<td>1,510</td>
<td>109</td>
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<td>151</td>
<td>329</td>
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<td>988</td>
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<td>445</td>
<td>0</td>
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<td>0</td>
<td>16</td>
<td>939</td>
<td>233</td>
</tr>
<tr>
<td>2000</td>
<td>102</td>
<td>898</td>
<td>103</td>
<td>20</td>
<td>69</td>
<td>0</td>
<td>4</td>
<td>1,196</td>
<td>405</td>
</tr>
<tr>
<td>Average per year</td>
<td>587.5</td>
<td>1,009.4</td>
<td>35.8</td>
<td>113.6</td>
<td>289.3</td>
<td>101.4</td>
<td>159.6</td>
<td>2,296.6</td>
<td>269.6</td>
</tr>
</tbody>
</table>

Control and Prevention (CDC) report that the number of persons at risk from rabies infections after being bitten by domestic and wild animals ranged from 4,826 in 1990 to 7,259 in 1998 (CDC 1999, table 4 in part 3 and the historical summary tables). The Federal Bureau of Investigation (FBI) reports that homicides in the United States declined from 23,440 in 1990 to 15,530 in 1999. Reported violent crimes in general declined from some 1.8 million to 1.4 million (U.S. Department of Justice 1999b, Index of Crime, table 1). The U.S. National Highway Traffic Safety Administration (NHTSA) reports that the number of persons killed in traffic accidents averaged more than 40,000 per year in the United States and only in one year (1992) fell below 40,000 during the period 1990–99. Pedestrian fatalities alone averaged more than 5,000 persons per year in that period and were never fewer than 4,900 persons per year (NHTSA 1999, table 4, p. 18).

The total number of persons killed in international terrorist attacks worldwide during the ten years tabulated in table 1 is 2,696, or slightly more than half the average number of pedestrians killed in the United States in a typical year. This ten-year total is approximately 13 percent of the average number of persons murdered in the United States during a single year, and it is far lower than the average annual number of annual traffic fatalities in the United States. Even the terrible death toll of September 2001 implies a risk of death from terrorist attack that is well below that of death from ordinary murder or traffic accident in the United States. Indeed, even in that year, the probability of being killed by terrorism in the United States was less than that of being run over by a car while walking.

### Table 2: Risks Encountered in Ordinary Life (U.S., 1990-1999)

<table>
<thead>
<tr>
<th>Year</th>
<th>Rabies Infections</th>
<th>Highway Traffic Deaths</th>
<th>Pedestrian Deaths</th>
<th>Murders</th>
<th>Violent Crimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>4,826</td>
<td>44,599</td>
<td>6,482</td>
<td>23,440</td>
<td>1,820,130</td>
</tr>
<tr>
<td>1991</td>
<td>6,910</td>
<td>41,508</td>
<td>5,801</td>
<td>24,700</td>
<td>1,911,770</td>
</tr>
<tr>
<td>1992</td>
<td>8,589</td>
<td>39,250</td>
<td>5,549</td>
<td>23,760</td>
<td>1,932,270</td>
</tr>
<tr>
<td>1993</td>
<td>9,377</td>
<td>40,150</td>
<td>5,649</td>
<td>24,530</td>
<td>1,926,020</td>
</tr>
<tr>
<td>1994</td>
<td>8,147</td>
<td>40,716</td>
<td>5,489</td>
<td>23,330</td>
<td>1,857,670</td>
</tr>
<tr>
<td>1995</td>
<td>7,811</td>
<td>41,817</td>
<td>5,584</td>
<td>21,610</td>
<td>1,798,790</td>
</tr>
<tr>
<td>1996</td>
<td>6,982</td>
<td>42,065</td>
<td>5,449</td>
<td>19,650</td>
<td>1,688,540</td>
</tr>
<tr>
<td>1997</td>
<td>8,105</td>
<td>42,013</td>
<td>5,321</td>
<td>18,210</td>
<td>1,636,100</td>
</tr>
<tr>
<td>1998</td>
<td>7,259</td>
<td>41,501</td>
<td>5,228</td>
<td>16,970</td>
<td>1,533,890</td>
</tr>
<tr>
<td>1999</td>
<td>na</td>
<td>41,611</td>
<td>4,906</td>
<td>15,530</td>
<td>1,430,690</td>
</tr>
<tr>
<td>Average per Year</td>
<td>7,556.222</td>
<td>41,523</td>
<td>5,545.8</td>
<td>21,173</td>
<td>1,753,587</td>
</tr>
</tbody>
</table>

The FBI tabulation of deaths (figure 1) from terrorism in the United States includes deaths caused by domestic as well as by international terrorist groups. It reports that fewer than 200 persons were killed in all terrorist events between 1990 and 1999 in the United States—a period that includes the terrible Oklahoma bombing of 1995, when 169 persons were killed. Indeed, only 205 persons were lost to terrorist attacks in the United States between 1980 and 1999 (U.S. Department of Justice 1999a, 53). The twenty-year average number of deaths from terrorism (10) was approximately one-ninth of the average number of persons killed by lightning in the United States (89) prior to 2001. After 2001, the twenty-year-average risk of death from a terrorist attack will be approximately twice that of death from lightning.

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Together the State Department and the FBI reports suggest that historical risks from terrorist attacks in the United States are substantially below those of other areas of risk dealt with by public policy. This well-documented pattern of risks clearly limits the steps that a liberal democracy can properly take to oppose terrorism. Obviously, at this point, national survival is not at risk. All might be fair in love and war, but all is not fair in crime prevention in a civil society.

Source: U.S. Department of Justice 1999a and U.S. Department of State 2001

Have We Been Terrorized?

To determine whether too many or too few resources are being devoted to antiterrorism activities, the possibilities for reducing the risk of terrorism have to be compared with the corresponding possibilities in other areas of public risk management. The logic of mainstream welfare economics implies that the losses from terrorist attacks can be very large and so can justify considerable efforts to curtail those attacks. However, the historical risk of death from terrorism suggests that the methods and resources applied should be comparable to those already used to fight crime or to avoid highway fatalities. Greater efforts are warranted to punish those responsible for the September 11 attacks than to punish a murderer or even a domestic mass murderer because the damages from those attacks far exceeded the harm caused by those other crimes. Still, the antiterrorism efforts should not dwarf ordinary efforts to police our entire nation, to deal with significant medical problems, or to increase highway safety.

Current state and local expenditures on police and corrections are available from the U.S. Bureau of the Census. In 1998, the most recent year in which published data are available for state police expenditures, those expenditures amounted to $8.04 billion. State governments spent an additional $30.6 billion on corrections. In 1996, the most recent year in which data are available for local government expenditures on police, those expenditures amounted to $38.19 billion. Extrapolated at the average growth rate of overall state and local investment and consumption expenditures (4.5 percent per year), the amount spent by all state and local governments to police all crimes in 2001 would have come to approximately $57.61 billion.10

State governments spent $63.6 billion on highway construction and maintenance in 1998. Local governments spent $31.6 billion dollars on highways in 1996. Extrapolated at the average growth rate for total state and local investment and consumption expenditures, the amount spent by all state and local governments to provide highway services and safety would have come to approximately $112 billion in 2001.

On September 18, 2001, the Emergency Supplemental Appropriations Act for Recovery from and Response to Terrorist Attacks on the United States became Public Law 107-38. This legislation was crafted and enacted with strong bipartisan cooperation and provided among other things a total of $40 billion in emergency funding for the Emergency Response Fund. Approximately half of that total can be devoted to antiterrorism activities.11 Thus, this emergency appropriation provides

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10. State expenditures are from U.S. Bureau of the Census, *State Government Finances* (2000a); the data are also tabulated in table S11 of the *Statistical Abstract of the United States* (U.S. Bureau of the Census 2000b). Estimated local government expenditures are from table S15. From 1995 to 1999, state and local total consumption and investment expenditures rose from $850.5 billion to $1,059.4 billion, or by 4.5 percent per year (table 501).

11. Public Law 107-38 also includes assistance for the victims of the September attacks and authorizes spending for (1) providing federal, state, and local preparedness for mitigating and responding to the attacks; (2) providing support to counter, investigate, or prosecute domestic or international terrorism; (3) providing...
new antiterrorism resources beyond those already being employed by the FBI, the CIA, the Defense Department, and other government agencies. Note that this increase of antiterrorism spending is equivalent to approximately one-third of the total expenditure to provide day-to-day police protection in the entire United States for all crimes, and equivalent to approximately 20 percent of the funds used to assure highway safety.

Moreover, many of the new security measures put in place in the wake of the September 11 attack have significant costs that do not appear on public ledgers. An example is the implicit cost of airport security. The *Statistical Abstract of the United States, 2000* (U.S. Bureau of the Census 2000b) reports that 614 million persons boarded planes during 1998 (see table 1067). If the new airport security measures cause each passenger to spend only an additional half hour in the airport, approximately 300 million person-hours will be contributed, off budget, by passengers to increase airport security. If the opportunity cost of time spent in line is $50.00 per hour, the off-budget cost of the new airport security measures in the United States amounts to approximately $15 billion per year. To put this cost in perspective, consider that (according to the same table of the *Statistical Abstract*) total airline profit never exceeded $5.5 billion in any year from 1990 to 1998.

Given that the risk of death from terrorism in 2001 appears to be less than one-fourth that of murder alone and far less than the risk of being involved in a fatal car accident, these new expenditures to curtail terrorist threats in the wake of the September 11 attacks appear to be excessive, unless the risk of terrorist attack has increased substantially.

**Is the Risk of Terrorism Increasing?**

New and greater steps to deal with the risk of terrorism might be called for if the risk of terrorist acts had increased in an unexpected manner. It is possible that circumstances are rapidly changing in a manner that makes a large increase in damages from terrorist attacks appear likely, although such an increase is not evident in table 1 or in figure 2. On the other hand, the September 11 casualties will be among the highest recorded, and the fatality rates the highest by far. It is possible that this attack signals the onset of a new and much higher risk of terrorism than before. However, such an abrupt change does not seem to be the case. The public policies that are said to motivate the various Islamic terrorist networks are *long-standing* U.S. policies that are not obviously changing in a dramatic fashion. Thus, apart from current efforts to respond to the threat of terrorism, there are no obvious reasons why U.S. foreign policies
should suddenly provoke a major increase in recruitment or in the intensity of disapproval for U.S. policies.12

Of course, a static foreign policy does not by itself imply that the risk of terrorism is static. Perhaps the willingness of persons to engage in terrorist activities is changing rapidly for reasons unrelated to U.S. foreign policy. The opportunity cost of ordinary lives relative to careers in terror might recently have changed in a manner that makes the life of a terrorist relatively more attractive. Table 3 lists the most recently tabulated five-year growth rates in per capita real gross domestic product (GDP) in the countries with major Islamic populations. These data suggest that economic circumstances are improving broadly throughout much of the Islamic world, although a few cases of economic decline exist.

A few important countries do report negative growth, and others do not report GDP accounts to the World Bank. However, the downward spiral in those economies has been under way for many years. Thus, it seems unlikely that a sudden increase in the number of terrorists will be forthcoming in the immediate future as a consequence of major economic problems in the regions where such terrorists are most easily recruited.

Alternatively, if the manpower and motivation of terrorism are not rapidly increasing and U.S. policies are not becoming more provocative, perhaps technolog-
ical breakthroughs or greater access to weapons of mass destruction will allow much greater destruction in future terrorist attacks. The worst weapons that the terrorists might eventually wield are very powerful, but, again, most of such weapons have long existed in their present locations. Only Iraq and Iran seem likely to provide new access to chemical or biological weapons by producing those weapons directly. Nuclear weapons are available in Pakistan, a relatively unstable Islamic polity, which conceivably might collapse in a manner that will allow greater access to the weapons stock. But this problem, too, has existed for many years. Moreover, the September attackers used existing technologies—box cutters and jet liners—rather than new weapons of mass destruction to achieve their terrible results.

Obviously, the risk that more effective means of terrorism will fall into the hands of terrorist groups cannot be ignored. Still, although these risks might have increased somewhat, they have not increased at a significantly higher rate in the past few years than in the preceding period. The total number of terrorist incidents appears to be trending downward somewhat, although the number of deaths has been relatively stable. This conjunction implies that the probability of a fatal attack has increased somewhat during the past decade, as the Enders and Sandler (2000) results affirm.13

### Conclusions

The political nature of terrorism distinguishes it from ordinary crimes. The extremely costly and generally illegal methods that terrorists use to send their political messages distinguishes terrorism from ordinary interest-group politics. This is not to say that ordinary criminals never have political agendas or that ordinary interest groups never make use of illegal means to send messages. There is a continuum of criminal and interest-group activities, and terrorism denotes only a particularly destructive subset

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13. Enders and Sandler (2000) attribute the increased deadliness of terrorist attacks to the increased religiosity of the attackers rather than to a shift in terrorist technologies.
of the joint domain of interest-group politics via criminal means. That same continuum of political conflict and methods extends beyond terrorism to encompass even more intense and violent conflicts between nation-states, including those in which national survival is truly at risk. For the analyst, all such political contests have many common properties, but they also exhibit relevant differences both in the intensity of conflict and in the methods used. The boundaries between these political activities are necessarily somewhat indistinct.

However, the distinction between terrorist networks and ordinary interest-group politics is generally clear. Although both types of groups send political messages and in some cases may advocate similar public policies or forms of governance, ordinary interest groups make their case with words rather than with violence. As a consequence, the losses generated by ordinary interest-group politics tend to be much smaller than those associated with terrorism. Because of the extreme costs of terrorist acts, those acts, in spite of their political motivation, are and should be treated as crimes. Consequently, even in the U.S. context, where an absolute right of political speech is affirmed by the First Amendment, some methods of transmitting political sentiments are illegal, although the messages themselves are not.

Because the losses from terrorist events tend to increase with the scale of the terrorist activities, more resources are warranted to discourage and punish extreme forms of terrorism than to deal with minor transgressions, other things being equal. However, to conclude that extreme methods of sending political messages should be discouraged is not to say that all possible steps should be taken to counter every conceivable threat. Cost-benefit analysis suggests that devoting substantial resources to detect, punish, discourage, and prevent terrorist acts is warranted, but the proper extent of such efforts has to be judged relative to the resources devoted to reducing other risks that we confront on a day-to-day basis in our ordinary lives.

The overwhelming support for antiterrorism legislation in the autumn of 2001 may reflect in part the success of the terrorist attacks, one effect of terror being an exaggerated sense of the damages and probability of future terrorist attacks. Worst-case scenarios for terrorist attacks are dreadful indeed, but this dreadfulness is a property of worst-case scenarios rather than of terrorist attacks as such. Would anyone drive to the office or send the children to school if the worst-case scenarios for those activities were taken seriously? Clearly, if private lives were driven by worst-case scenarios, we would all lead extremely limited and cautious lifestyles. Such risks can be brought into perspective only by assigning probabilities to all possibilities, not just to the worst ones.

My analysis suggests that the risk of terrorism is less than many other risks that we face in our ordinary lives and that we have no obvious reason to expect this risk to rise dramatically in the near term. Although minor improvements in security procedures may be called for in response to the September attacks, dramatic new domestic policies are not. This is not to say that efforts to punish and discourage international
terrorist networks can be confined entirely to the criminal justice system. The international nature of many terrorist networks implies that punishing the terrorists will be difficult and will require resources beyond those available to local police departments. However, given the risks that we currently face and have faced for decades, discouraging criminal forms of political expression can be —and should be—accomplished within our existing constitutional framework.

References


**Acknowledgments:** Numerous friends and colleagues—including Gordon Tullock, Bryan Caplan, Tyler Cowen, James Buchanan, David Levy, Arye Hillman, Thomas Stratmann, Pam Cubberly, and the editor of this review—provided helpful comments and suggestions. They are, of course, blameless for the final analysis developed here.