

Terrorism, Interest-Group Politics, and Public Policy: Curtailing Criminal Modes of Political Speech¹

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I. Introduction

There is a long history of terrorist incidents around the world and within the United States that spans many centuries. Tax revolters, anarchists, war protesters, and other critics of government policy have often used violence to send messages to the policy makers controlling the issues of interest. For example, the recent attacks of September 11 have been widely interpreted as a comment on American policy toward the Islamic world, especially within the Middle East. Indeed, terrorist attacks can nearly be defined as violence for the purpose of sending a political message with the aim of influencing policy, or at least voicing disapproval. In this sense, terrorism is just one possible method of "political dialogue."

The use of violence as a method of sending messages is defended by some political analysts because of the political nature of the message sent, even when those pundits do not share the goals of the terrorist groups. After all, political messages and popular protests are given special protection in all liberal democracies, and civil disobedience has

¹ Helpful comments and suggestions were provided by 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. They are, of course, blameless for the final analysis developed here.

often generated improvements in government policies. The conjunction of the "political message" explanation for terrorist actions and a "free speech" justification for those actions clearly resonates with some proponents of popular resistance, but is, nonetheless, a bit puzzling for most proponents of free speech. The former might argue that the United States brought the recent attacks on itself because of a variety of foreign policy mistakes made over the years. Most other proponents of free speech would clearly disagree with this conclusion as a justification for terrorism, but they have not yet found a clear line of argument with which to respond to the pronouncements of the former.

The first half of this paper attempts to clarify the distinction between terrorism and ordinary political speech and discusses sensible policies for *methods* of political speech deemed unacceptable, indeed criminal. Ordinary policy-advocacy groups share many properties with terrorist networks, but there are also policy-relevant differences as developed below.

If terrorism is the organized use of violence to transmit "political messages," then a good deal about terrorist networks and activities can be understood using the same models that explain the existence and behavior of ordinary policy advocacy groups. There are obvious analytical parallels between terrorism and ordinary interest-group politics: 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 influence controversial public policies in a manner disproportional to their votes. The probability and extent of the success of their efforts increase as the resources devoted to exerting "influence" expand, and decline with opponent 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. Terror is, analytically, simply another *method* that groups may use to influence decisions reached by governments. In all these respects, terrorism is simply another form of interest-group politics.

Moreover, there are also normative similarities between terrorism and ordinary interest-group politics. In both cases, losses tend to arise for the direct participants of the conflict over the public policy. Scarce resources are used by all politically active groups in order to induce (or avoid) changes in public policy favored (or opposed) by the groups participating in the political game. To the extent that the resources used by opposing interest groups largely offset each other's efforts, each side could have reduced their efforts in a manner that would not have significantly changed policy outcomes, but would have freed resources for other more productive uses. The more resources invested by those involved in such political conflict, the larger are these 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.

The first half of the paper explores why, in spite of their similarities, governments always treat terrorism differently from ordinary interest-group politics. Although the political aims of terrorism (and other forms of policy-motivated civil disobedience) clearly resemble those of ordinary interest groups in their efforts to draw attention to specific policy issues, there are clearly *important differences in the normative properties of the methods* used to influence public policies.

The second half of the paper explores 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, these differences are not so large as to justify *any* policy that might potentially reduce future terrorism. Indeed, the analysis below suggests that we have grossly over reacted to the current terrorist threat by focusing too much attention on worst-case scenarios and insufficient attention on the historical record of terrorist attacks around the world and within the United States.

The analysis of this paper is organized as follows. Sections 2 and 3 demonstrate the "obvious:" there are significant normative differences in the range of methods by which

interest groups can influence public policy, and those differences justify different types of policies toward different methods of influence. The purpose of these two sections is to provide clearer logical and economic foundations for many of our moral intuitions regarding terrorism as a method of political speech. These sections explain why terrorism should be--and is--an illegal mode of political speech in all civilized countries. Sections 4 and 5 of the paper analyze appropriate responses to control this overly costly medium of political speech. Appropriate efforts to reduce terrorist acts depend partly on the nature of the damages from those acts and the threat of damages that might be imposed by terrorist groups in the future. In addition, the appropriate level of resources spent on antiterrorism depends on the probability and the extent of those damages relative to others addressed through public policy. The benefit-cost analysis of section 5 suggests that the policies being put in place for antiterrorism today are excessive given the risks that we face. The last section summarizes the argument and suggests extensions.

The paper uses ideas and models from the public choice, crime, and risk management literatures as the engine of its positive analysis. The economists' stock in trade, cost-benefit analysis, is used to develop the paper's normative analysis. The use of cost-benefit analysis is not meant 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.²

² To the extent that cost-benefit analysis is able to characterize the "typical" net benefits and losses generated by alternative public policies, the results of the present analysis tend to mirror those of other contractarian or majoritarian analyses. The "average person" who takes the time to reflect dispassionately on the issues would reach more or less the same conclusions reached here, assuming that I have made no major errors.

Cost-benefit analyses also take account of costs and benefits borne by very small minorities in a manner that tends to be neglected--often properly so--in contractarian and majoritarian analyses of public policies insofar as those methods of analysis emphasize the degree of consensus rather than estimates of collective net benefit in dollars or other currencies. The tension between normative theories does not arise in the present analysis, because I do not attempt such a macro calculation, but rather focus on the risks and losses faced by typical individuals.

II. Methods of Conflict: *Some forms of political competition are much better than others.*

There are many forms of competition and many forms of conflict. As it turns out, most games of conflict generate avoidable losses for the participants, because too much time, energy, and material are consumed by those games. 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 it be prize money, status, or new public policies. In most games of conflict, the efforts of competitors largely offset each other, insofar as winning the contest is determined by relative rather than absolute effort. Consequently, a small reduction in each player's effort would not materially affect the outcome of the game. However, reduced conflict does free resources for other uses, and it is in this sense that the most games of conflict generates avoidable losses for all participants. Unfortunately, the competitive nature of the conflict also makes it impossible for any *single* competitor to realize those savings on his or her own without reducing his or her chance of winning. The over-investment of resources in competitive games of conflict, once started, can continue ad infinitum.

Fortunately, not all competitive contests generate net losses for *all* parties affected by the contest. As several authors, including this one, have emphasized in papers analyzing competitive contests, the *social losses from different forms of competition clearly differ*.³ This is not because the nature of the contests differ significantly for participants, but rather because different forms of conflict impose different costs and benefits, what economists call externalities, on others largely outside the game.

For example, a modern sporting event calls forth enormous effort from a handful of competitors, who may devote most of their waking hours to perfecting skills that are largely without value in themselves, hitting balls into small cups from a distance (golf), jumping over higher and higher bars (the high jump), running 100 meters just a bit faster

³ See for example: Tullock's (1967) or Congleton (1980, 1989) for good introductions to the distinction between productive and counter-productive forms of competition. Knight (1992) provides a more recent and extensive discussion. See Hirshleifer (2001) for an entertaining overview of the economics of conflict.

than someone else (but much slower than a person with a bicycle, automobile, or jet airplane), and throwing or kicking balls ever more precisely into hoops while running complex patterns ever faster (basketball and soccer). It is clear that the relative positions of the competitors in their sport is largely the result of extraordinary efforts to perfect relevant skills, but it is also clear that approximately the same relative positions would have resulted if each of the competitors had reduced his or her training by half. Nonetheless, extraordinary investments in most of these sports are encouraged rather than discouraged by many families and governments around the world, because the amazing performances of these "overly" skilled athletes are thoroughly enjoyed by millions of spectators who watch the games in which those skills are demonstrated.

Within the political sphere, many forms of competition are also productive on the whole. Lifetime investments in glad-handing, grooming, public speaking, policy issues, and networking are made by most participants in the great political games played in every nation. And, as true of sporting events, competition among highly trained opponents in public forums also provides entertainment for millions. Beyond any entertainment value, policy contests among political candidates or interest-group spokespersons often provide voters and other spectators with a good deal of useful information about policy 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, in a manner that generally leads to better public policies than noncompetitive methods of choosing policies.⁴

The informational component of political conflict is clearly important; indeed so important that liberal political constitutions generally include special provisions to protect the dissemination of policy-relevant information, as with the First Amendment in the United States. Political speech is privileged largely because, among an educated electorate,

⁴ Evidence supporting this contention can be obtained by comparing the average and median income within OECD countries in their long democratic and longer undemocratic periods.

the most persuasive arguments are normally based on sound analysis and good information: solid commonsense, 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 provides a good deal of free and useful information that makes the "spectators" (voters, representatives, bureaucrats, and so on) more aware of facts and talents that are relevant for making policy decisions.

The resources invested by the parties to such policy debates are not wasted in the usual sense of a rent-seeking contest, because they indirectly cause better policies to be demanded by voters and promulgated by the legislature. Informative policy debates create a *positive* external benefit that is generally larger in the aggregate than 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 that are based on existing 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 perhaps the best current example in the United States. A lock box actually exists, but there is effectively nothing inside it.) The nominal informational "base," measured in arguments heard or words read, increases; but, unless the biases and confusion promulgated are properly filtered out by listeners, the useful informational base decreases, and policy mistakes become more likely as a consequence. Such policy debates generate external losses rather than benefits. If ordinary persons were routinely misled by specious arguments, the instrumental argument for free speech would clearly be weakened. In such a society, the typical policy debate would add external losses to the usual losses from competitive conflict, rather than offset those losses with external benefits.⁵

⁵ Even an informative debate can reach a point beyond which informational gains are more than offset

Beyond political debates conducted with analysis and rhetoric are "debates" in which efforts at "persuasion" are not based on arguments, whether well or poorly formed, but on *threats* of one kind or another. For example, a group of "demonstrators" may cause well-meaning policy makers to alter public policies because the interest group threatens to impose damages on society that are larger 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 have to presage additional and substantial economic damages in order to be effective*, whether explicitly demonstrated or merely implied.

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 also provides information about the future, insofar as the threats are credible. But neither kind of information is itself broadly relevant to a policy debate within a civil society. The intensity of policy demands is largely a matter of a proponent's *own* ranking of policy consequences, 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 this is not because of the information content of the threat, itself. In principle, an interest group could use the same disruptive act to draw attention to objections regarding a simple parking ticket, a failure or extravagance of environmental regulation, or a mistaken foreign policy. The *medium of terrorism is not "the message"*; rather, the medium of terrorism is the threat. The threatened disruptive acts are largely independent of the "policy argument" being communicated.

by the costs of delivering the last bit of information (Congleton, 1986, 1991).

However, it is easy to imagine even worse informational problems in societies that attempt to "regulate" or license political pundits and experts. In most cases, it is clear that a "talk tax" or a "talk license" would often be used to protect political incumbents and their policies, and that the relative merits of those policies would be under rather than over examined. There may be no better alternative than unregulated political discourse in a democracy.

III. The Deadweight Cost of Terrorism

Peaceful and lawful contests to influence political decision making generate three kinds of costs. First, there are the usual avoidable losses of any *rent-seeking* contest. If every contestant 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, there are additional losses that are associated with the *method* that the competition takes. The manner of competition employed can produce *external costs*, and the extent of those costs varies widely among the methods of competition that might be employed. Third, there are losses that emerge from *policy mistakes* induced by the degradation of the stock of policy-relevant information or hasty decisions engendered by intense political conflict. Such policy mistakes may be generated in the short run by torrents of one-sided information, by risk cascades generated by sudden dramatic events, or by a crisis mentality.

Terrorism and other destructive methods of political influence add a fourth source of damages, namely those associated with the threat and actuality of destructive activities.⁶

The direct costs of terrorist acts are obvious and need to be obvious in order for terrorism to be successful. The entire point of terrorism is to influence government policies by directly harming persons or property, and, by the visibility of that harm, making all those not physically 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

⁶ The U. S. Department of State reports that thousands of bombs have been used by terrorists worldwide in the second half of the twentieth century. In the period since 1968 when the U. S. government began tabulating terrorist incidents, more than 7,000 bombings have taken place worldwide (1999 *Patterns of Global Terrorism*, U.S. Department of State, pg. 1.). Both the 1999 *Patterns of Global Terrorism* report and the *Terrorism in the United States 1999* report of the U. S. Federal Bureau of Investigation also note that destruction of business properties is the most common form of terrorist attack, rather than attacks on government facilities. Not all terrorist attacks generate fatalities or injuries, although fatalities are a common result. <http://www.state.gov/www/global/terrorism/1999report/patterns.pdf>, <http://www.fbi.gov/publications/terror/terror99.pdf>

terror induced is partly a completely rational response to new knowledge about previously neglected risks and partly an overreaction induced by the emotional impact of catastrophic events. Both effects clearly make affected persons subjectively worse off.

Beyond the direct impacts of terrorist acts are a variety of indirect economic and political effects. First, in conventional economic terms, both the labor supply and stock of capital are diminished by terrorist acts. Consequently, potential economic national income, the Pareto frontier, is smaller after a terrorist act than it was before it. Within the public sector, tax receipts fall, while demands for public services rise. In the case of large terrorist events, even GNP accounts may be able to measure the economic losses from terrorism. Obviously, the "winners" could never have compensated those affected for their losses.

Second, a terrorist act tends, and is intended, to increase the fear of future terrorist acts, which may have an even larger effect on economic activity. Increased uncertainty reduces the appeal of long-term investments relative to current consumption. Increased uncertainty also reduces the private returns to planning and other long-term commitments. Living for today clearly makes more sense when tomorrow is less likely to bear fruit. All these physical and subjective effects clearly tend to reduce prospects for long-term growth and prosperity.

Third, the perceived increase in future risks to life and property (from future terrorist acts) also tends to generate other rent-seeking losses from changes in private and public behavior. An increase in perceived risks increases demands for private and public insurance and for private and public investments that can reduce the risk of future terrorist activities. Gordon Tullock (1967) long ago pointed out that the latter are a source of the deadweight losses for ordinary crimes and, by extension, are also losses for terrorism. Avoiding 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 to protect themselves from terrorism and of criminals to overcome those precautions are a deadweight loss, even in cases in

which those investments are sensible at the level of the individual. Nearly everyone would benefit if both sides invested fewer resources in such criminal contests.

The losses that would accumulate in a society that tolerated terrorist modes of political dialogue should now be clear. As rival interest groups self-righteously destroyed people and/or buildings in order to send their respective messages, the stock of productive human and physical capital in those societies would rapidly disappear, and all within those societies would rapidly be reduced to abject poverty. And this, of course, has occurred occasionally throughout history. In less extreme settings, terrorism reduces economic output and causes too much of what is produced to be invested in unproductive games of conflict.⁷

It is also clearly possible to escape from such destructive political games by discouraging terrorist modes of political speech. It is for this reason that violent and destructive *methods* of "sending messages" are punished more severely than other forms of civil disobedience in all modern democratic societies, regardless of the value of the message sent.⁸

Of course, terrorists themselves and other groups favoring the policy "lobbied for" may be made better off by their activities. But, as in every analysis of rent-seeking contests, *it is sufficient for our purposes to demonstrate that less expensive means could have been used to get a policy message across.* That is to say, for the purposes of the case being developed here, it is sufficient to identify a few *avoidable losses*.⁹ In most cases, the external losses of destructive

⁷ Less tragic terrorist contests also tend to affect economic prosperity. For example, Lapan and Sandler's (1993) study finds that terrorist attacks affect international flows of capital. They find that terrorist incidents in Greece and Spain significantly reduced capital flows into those countries in the periods following terrorist incidents.

⁸ This avoidable loss case against terrorism is clearly weaker in a closed society, where terrorism may be the only method by which a message can be transmitted by some groups. Although, even in such cases, there are clearly more or less costly methods of attracting public attention.

⁹ The losses from terrorist acts can clearly be reduced by "encouraging" less destructive terrorist methods, blowing up a monument, rather than a building or airplane full of people. For example, the anti-American message transmitted by the recent attacks in New York and Washington could clearly have attracted worldwide attention without killing persons. Imagine the destruction of a very symbolic target,

forms of political conflict can be replaced with external benefits by inducing appropriate changes in the *method* of persuasion used by political protagonists without reducing civil liberties or limiting the *substance* of political debate. Political messages sent using ordinary legal means can be just as conspicuous and informative as violent means, indeed more broadly so, without the associated negative externalities of terrorist acts.

IV. Punishing Terrorists for Criminal Acts

Once terrorist acts are classified as criminal acts, albeit motivated by political aims, it becomes clear that terrorist acts should be punished in a manner comparable to similar crimes.¹⁰ Punishing all criminals is motivated partly by a desire to punish (retribution) and partly by a desire to reduce the incidence of future losses from criminal activity (Pigovian sanctions). Both rationales suggest that the more damages generated by a crime, the more resources it makes sense to devote to capturing and punishing the criminal, other things being equal (see Becker [1968], Benson et. al. [1994, 1998] or Neilson [1998].)

As with other crimes, the motives and potential benefits of the criminal act should be taken account of. A boat 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 compared with the effectiveness of civil disobedience as a method of sending a political message. The value added by the political information disseminated by these activities can partly or totally offset the deadweight loss of the criminal act itself.

such as the Washington monument at the dawn's early light.

¹⁰ In this paper, I address only those cases in which terrorist attacks do not directly pose a significant risk of destroying the civil society attacked. A genuine act of war or revolutionary effort would, as opposed to mere terrorism, pose a serious risk to the current government and, in some contemporary settings, all of its citizens.

None the less, most minor transgressions are punished, as unlawful 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 would, consequently, not significantly reduce the optimal punishment of terrorists and discourage future acts of terror. 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 transmitted using far less costly methods and, 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.¹¹

As with any case of murder, the more people killed, harmed, or 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 punishment of ordinary murder committed by a team is not limited to the person on the team that actually pulls the trigger, the proper scope of punishment for terrorist acts extends well beyond those directly engaged in the terrorist acts themselves. Each person in a terrorist network increases the probability that the terrorist acts will be successful. (Otherwise, the network would have been smaller, if terrorists are rational.) To punish an entire terrorist network for mass murder is, thus, entirely consistent with the normal logic of the law. The magnitude of the punishment should, as with other crimes, 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 are the sanctions that should be placed on each member within a given organization. The larger the crime, the further down the organizational hierarchy strong sanctions should be

¹¹ In a closed society, illegal means would have to be used to send forbidden messages, essentially by definition. There is a clear distinction between the illegal acts of freedom fighters in a closed society and those of terrorists in an open society. However, again any illegal methods used should be broadly cost effective in the sense used here.

applied. Such rules of thumb also apply to a wide range of ordinary crimes in which coconspirators are routinely found and punished.¹²

If a crime would have been impossible without the assistance of a team member, he or she is clearly 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 or she 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* would 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 would warrant a life sentence for the murder of 1,000 persons. The larger the crime, the more people in a criminal organization would be subject to the maximal penalty, based either on culpability or reductions in future crimes.

It bears noting that the discouragement of future crimes implies somewhat a 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 at the least cost. Consequently, sanctions justified by effects on future behavior may fall more heavily on persons further

¹² The logic of punishing the support network for terrorists can be demonstrated with a simple model. Let $p(A^*, B^*)$ be the probability that damage D is imposed by some terrorist act, where A^* is the effort level of terrorist A and B^* is the effort level of those supporting the terrorist. Let (expected) punishment F_A and F_B be imposed on A and B respectively, who each tend to reduce their efforts as expected punishments increase. The expected losses from the terrorist act and antiterrorism efforts can be written as $L = p(A^*(F_A), B^*(F_B)) D + c(F_A, F_B)$. Optimal punishments for A and B will minimize overall losses, which is accomplished by finding the combination of punishments that set $P_{A^*} A^*_F D + C_{FA} = 0$ and $P_{B^*} B^*_F + C_{FB} = 0$.

Note that the optimal punishment varies (i) with the damage imposed, (ii) the contribution made by the terrorists and their supporters, (iii) the anticipated response of these persons to penalties, and (iv) the marginal cost of imposing the penalty. As long as the marginal cost of imposing fines is smaller than the expected reduction in damages from terrorist acts, all within the organization should be punished. The intuition behind this characterization of optimal penalties is discussed in the text.

down the hierarchy of a terrorist network because those persons are less fanatical than those at higher levels.

Punishment will not *deter* true fanatics since they have very inelastic "demand" curves for their chosen profession. Less fanatical elements of the support network will respond more to anticipated penalties. It is, thus, appropriate 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.

V. Managing the Risk of Terrorism

Beyond punishing criminals, many other cost-effective steps are routinely taken by ordinary citizens and governments to make crimes more difficult to commit. Similar steps can also be taken to make terrorist acts more difficult to commit. Most of us lock doors on our cars and houses in order to make it a bit harder to steal from us. Firmly locked doors to the pilot cabins would also have prevented the hijackers of September 11 from taking control of those airplanes. Efforts to avoid dangerous neighborhoods and control access to weapons are commonplace in both private and public policies toward ordinary criminals. Similar steps to control terrorist access to weaponry and to avoid terror-prone neighborhoods are also routinely taken by private organizations and governments.

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 will broadly demand and democratic governments will generally assure that such programs and policies are put in place.

Many government policies regarding terrorism can broadly reduce the damages of future terrorist acts. Efforts to bring terrorists to justice reduces the appeal of the terrorist career path, which may produce worldwide benefits as well as satisfy demands for retribution. Efforts to provide or subsidize emergency support allows 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 can potentially reduce the risk of damages from terrorist acts. It is also partly a matter of 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 should, ideally, maximize the net advantage from collective risk management across all policy areas, which requires the last dollar spent in each area of risk management to yield the same reduction in expected net damages.¹³

The breadth and depth of potential terrorist externalities clearly exceed those of many other negative externality-generating activities, so avoiding those losses can justify stringent efforts to address 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 clearly be wasteful in a society where other relatively *more* substantial risks are being addressed with relatively *fewer* resources.¹⁴

¹³ This point can be illustrated with a simple mathematical model of risk management. Suppose that there are two areas of policies, terrorism and highway safety, where public expenditures, E_t and E_h , can reduce the probability, P_t and P_h , and extent of widespread damages, D_t and D_h . The total expected losses from these two areas of risk can be written as $L^e = P_t D_t + P_h D_h + E_t + E_h$. Differentiating with respect to E_t and E_h we find that expected losses are minimized when expenditures are allocated so that $P_t \frac{dD_t}{dE_t} + P_t D_t = 1$ and $P_h \frac{dD_h}{dE_h} + P_h D_h = 1$. That is to say expected total losses are minimized when the last dollar spent on a risk area generates the expected reduction damages, in this case, a one dollar reduction in expected damages.

¹⁴ It is easy to imagine cases in which antiterrorism policies involve costs that are clearly greater than their benefits. For example, the risk of hijacking could be reduced essentially to zero by closing all civilian airports. Indeed, it can 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 constitutional framework. To the extent that liberal political institutions are relatively frail, but highly productive, the effects of terrorism on the quality of life from the erosion of constitutional protections may be long-lasting and substantial.

It bears noting that 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 successfully terrorize a nation's citizenry--voter demands for resisting terrorism will also be exaggerated. In economic terms, terror, nearly by definition, implies over estimates of the probability of horrific damages and the magnitude of those damages. In such cases, the public policies demanded and adopted will clearly be more costly than warranted.

A. 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 that "new" risks from terrorism in the United States are not obviously greater than many other comparable risks--in contrast with most of the news coverage in the period after September 11 seems to indicate. Table 1 summarizes casualties from terrorist attacks worldwide for the 1991-2000 period, as reported by the U. S. State Department's antiterrorism division.

Note, first, that the risk of being killed or injured in a terrorist attack in North America has for most years been significantly smaller than that in the rest of the world. North American casualties were essentially zero over this period, except for the attack on the World Trade Center in 1993. No other major continent has had so many years with no casualties, nor has any other continent had such a low average for the past ten years. The relatively low risk in North America also suggests that relatively effective steps have long been in place to reduce the risk of terrorist attacks within the United States, and also,

Nearly any new policies adopted in response to a terrorist event undermines the constitutional framework of the polity attacked, *unless the possibility of terrorist attack has previously been largely ignored* by voters, legislators, and relevant agencies. This is not to say the terrorist threats should be ignored, but rather that policy changes should not be triggered by a particular terrorist event unless the attack reveals new and important information about the likelihood or damages of future attacks.

doubtless, partly accounts for the trauma induced by the September 2001 attacks. Second, note that the number of casualties caused by terrorism varies a good deal from year to year.

Table 1
Casualties from International Terrorist Attacks
(1991-2000, U. S. Department of State)

Year	Africa	Asia	Eurasia	Latin America	Middle East	North America	Western Europe	Total Casualties	Total Deaths
1991	3	150	7	68	33	0	56	317	101
1992	28	25	0	374	236	1	65	729	93
1993	7	135	1	66	178	1,006	117	1,510	109
1994	55	71	151	329	256	0	126	988	314
1995	8	5,639	29	46	445	0	287	6,454	165
1996	80	1,507	20	18	1,097	0	503	3,225	314
1997	28	344	27	11	480	7	17	914	221
1998	5,379	635	12	195	68	0	405	6,694	741
1999	185	690	8	9	31	0	16	939	233
2000	102	898	103	20	69	0	4	1,196	405
<i>Average per year</i>	587.5	1,009.4	35.8	113.6	289.3	101.4	159.6	2,296.6	269.6

Source: *Patterns of Global Terrorism 2000* (and from the various 1999-93 *Patterns of Global Terrorism* reports), United States Department of State, Washington D.C.

In Africa and Asia, the worst years (1998 and 1995) terrorist attacks generated more than 5,000 casualties. However, losses in the other years listed were always fewer than 200 in Africa and fewer than 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 terrorist death series resembles that of tornadoes.) It is also clear that the new maximum for the United States will be comparable to those of Asia and Africa in the wake of the September 11 attack.¹⁵

¹⁵ 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 citizens or the territory of more than one country. The term "terrorist group" means any group practicing, or that has significant subgroups that practice, international terrorism.

Data on casualties from terrorist attacks is assembled from three overlapping data sets included in the U. S. Department of State's *Patterns of Global Terrorism*. The 2000 report can be found at:

Overall, the risk of death or injury from terrorism worldwide is nontrivial, although prior to this year the risk of being harmed by a terrorist attack in the United States has been relatively small, possibly because of previous investments to discourage terrorist attacks.

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

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

Consider now the risk of terrorist attacks in the United States relative to other risks that we confront on a daily basis. The Centers for Disease 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 1998.¹⁶ The Federal Bureau of Investigation (FBI) reports that homicides in the U. S. declined during the 1990-1999 period, from 23,440 in 1990 to 15,530 in 1999. This was also true of reported violent crimes in general, which declined from a bit over 1.8 million to 1.4 million.¹⁷ The U. S. National Highway Safety Administration (NHTSA) reports that the number of

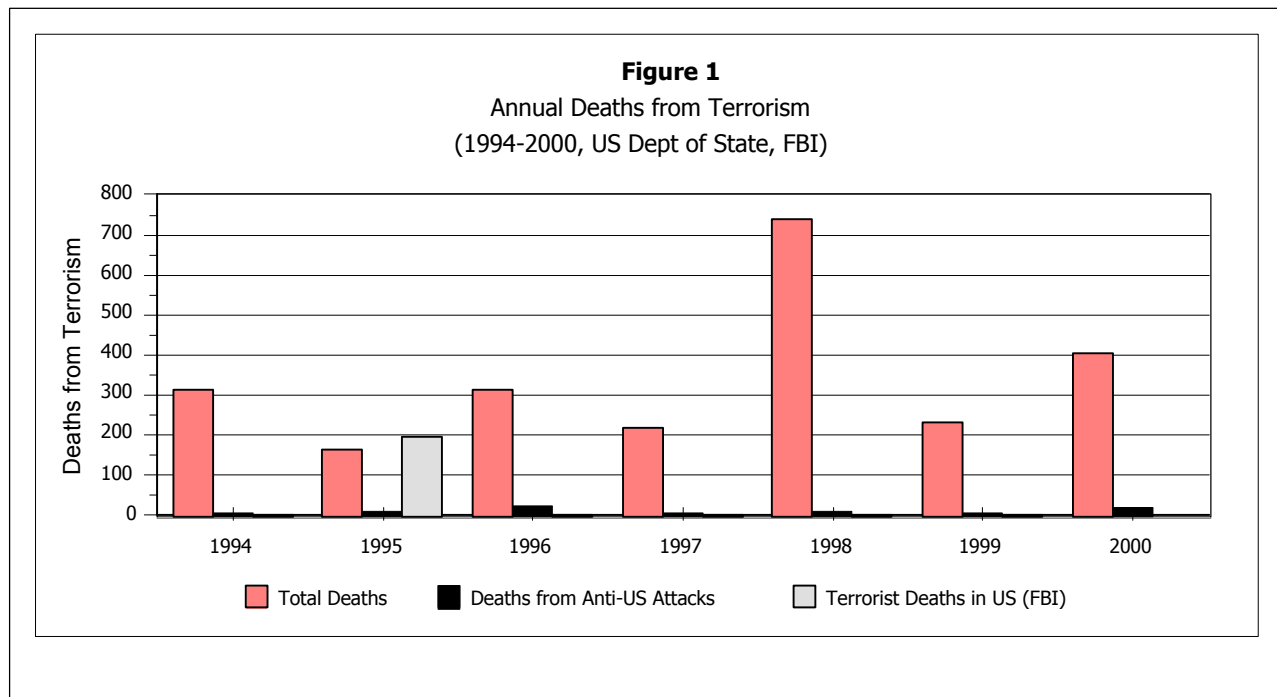
<http://www.state.gov/s/ct/rls/pgtrpt/2000/>. Copies of earlier reports are also available on the net, see for example, <http://www.fas.org/irp/threat/terror.htm>.

¹⁶ *Summary of Notifiable Diseases, United States, 1998*, from MMWR 47(53);1-93. See Table 4 in part three, the historical summary tables. (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4753a1.htm>)

¹⁷ *Uniform Crime Reports*, Federal Bureau of Investigation, 1999. Index of Crime: Table 1, which can be found at (http://www.fbi.gov/ucr/Cius_99/w99tbl01.xls),

persons in traffic accidents averaged more than 40,000 per year in the U. S. and only in one case fell below 40,000 during the 1990-1999 period. Pedestrian fatalities, alone, averaged more than 5,000 persons per year in that period and were never fewer than 4,900 persons per year.¹⁸

The total number of persons killed from international terrorist attacks *worldwide* during the entire ten year period tabulated in table 1 is 2696, which is slightly more than half the average number of pedestrians killed in the U.S. in a typical year. This ten year total is about thirteen percent of the average number of persons murdered in the United States during a single year, and is far smaller than the average annual number of annual traffic fatalities in the U. S.! 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, the probability of being killed by terrorism in the United States is less than that of being run over by a car while walking, even in the year of the historical 9-11 attack!



¹⁸ See *Traffic Safety Facts*, National Highway Traffic Safety Administration, 1999, Table 4, P. 18. (<http://www.nhtsa.dot.gov/people/nca/809-100.pdf>)

The FBI tabulation of deaths from terrorism in the U. S. includes domestic as well as international groups. It reports that fewer than 200 persons have been killed by 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 1999.¹⁹ The twenty year average number of deaths from terrorism (10) was about a ninth of the average the number of persons killed by lightning in the U. S.(89) prior to 2001.²⁰ After 2001, the twenty year average risk of death from a terrorist attack will be about twice that of death from lightning.

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

B. Have We Been Terrorized?

To determine whether too many or too few resources are being devoted to antiterrorism activities, possibilities for reducing the risk of terrorism have to be compared with those of 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

¹⁹ See *Terrorism in the United States 1999*, U. S. Department of Justice, Federal Bureau of Investigation, pg 53.

²⁰ The National Oceanic and Atmospheric Administration (NOAA) reports that 3239 persons were killed by lightning strikes in the period from 1959 to 1994. See the National Oceanic and Atmospheric Administration's (NOAA) Technical Memorandum NWS SR-193, "Lightning Fatalities, Injuries and Damage Reports in the United States from 1959-1994," <http://www.nssl.noaa.gov/%7Eholle/techmemo-sr193.html> .

already used to fight crime or to avoid highway fatalities. That is to say, greater efforts are warranted to punish those responsible for the September 11 attacks than for a murder or even a domestic mass murder because the damages from those attacks were far larger than those other crimes. However, those efforts should not dwarf ordinary efforts to police our entire nation, to address significant medical problems, or to increase highway safety.

Current state and local expenditures on police and corrections are available from the National Bureau of the Census. In 1998, the most recent year in which data are available for state police expenditures, expenditures on state police amounted to 8.04 billion dollars. An additional 30.6 billion dollars was spent by state governments on corrections. In 1996, the most recent year in which data are available for local governments, local governments spent 38.19 billion dollars on police expenditures. Extrapolated at the average growth rate in overall state and local investment and consumption expenditures (4.5 percent/year), this implies that approximately 57.61 billion dollars are being spent by all state and local governments to police *all crimes* in the year 2001.²¹

A total of 63.6 billion dollars was also spent by state governments on highway construction and maintenance in 1998. Local governments spent 31.6 billion dollars on highway expenditures in 1996. Extrapolating at the average growth rate for total state and local investment and consumption expenditures implies that approximately 112 billion dollars are being spent by *all* state and local governments to provide highway services and safety 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

²¹ State expenditures are from *State Government Finances*, U. S. Census Bureau (June 2000) which are also tabulated in Table 511 of the *Statistical Abstract of the United States*, 2000. Estimated local government expenditures are from Table 515 of the *Statistical Abstract of the United States*, 2000.

During the period from 1995 to 1999, state and local total consumption and investment expenditures rose from 850.5 billion to 1,059.4 billion, which implies a trend nominal growth rate of 4.5 percent/year. See Table 501 of the *Statistical Abstract of the United States*, 2000.

and, among other things, provided a total of 40 billion dollars in emergency funding to the Emergency Response Fund. Approximately half of that total can be devoted to antiterrorism activities.²² This emergency appropriation, consequently, provides new antiterrorism resources beyond those already being effectively employed by the FBI, CIA, DOD, and other governmental agencies. Note that this increase in antiterrorism spending is approximately a *third* of the *total* expenditure to provide day-to-day police protection in the entire United States for all crimes, and about 20 percent of that used to assure highway safety. Moreover, many of the new security measures put in place in the wake of the 9-11 attack have significant costs that do not appear on public ledgers.²³ 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 September 11 appear to be excessive, unless the risk of terrorist attack has increased substantially.

C. Is the Risk of Terrorism Increasing?

New and greater steps to address the risk of terrorism would be called for if the risk of terrorist acts has been increasing in an unexpected manner. It is possible that

²² The \$40 billion in emergency expenses enacted in Public Law 107-38 also includes assistance for the victims of the September attacks and addresses other consequences of the attacks, including the costs of: (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 increased transportation security, (4) repairing public facilities and transportation systems damaged by the attacks, and (5) supporting national security. See, for example, President Bush's October 17 letter regarding the emergency appropriations act (<http://www.whitehouse.gov/news/releases/2001/10/20011017-25.html>).

²³ An example is the implicit cost of airport security. The *Statistical Abstract of the United States*, 2000, reports that 614 million person enplaned during 1998 (see Table 1067). If the new airport security measures induce each passenger to spend only an additional half hour in the airport, approximately 300 million man hours will be contributed, *off budget*, by passengers to increase airport security. If the opportunity cost of time spent in line is \$50.00/hr, the off-budget cost of the new airport security measures within the United States is approximately 15 billion dollars per year.

To put this cost in perspective, the same table of the *Statistical Abstract* reports that total airline profit was never greater than than 5.5 billion dollars during any year in the 1990-1998 period.

circumstances are rapidly changing in a manner that makes a quantum leap in damages from terrorist attacks appear likely, although a quantum leap does not seem to be evident in table 1. 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 indicates a new much higher risk of terrorism than before. However, this does not seem to be the case. First, recall that 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 address the threat of terrorism, there are no obvious reasons why our foreign policies should suddenly induce a major increase in recruitment or in the intensity of disapproval for American policies.²⁴

Of course, a static foreign policy does not by itself imply that the risk of terrorism itself is static. It is possible that the willingness of persons to engage in terrorist activities is changing rapidly for reasons unrelated to American foreign policy. Perhaps, the opportunity cost of ordinary lives relative to careers in terror has recently 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 GDP in the countries with major Islamic populations. Notice that these data suggest that economic circumstances are broadly improving throughout much of the Islamic world, although there are a few cases of economic decline.

Table 3
Average Per Capita Economic Growth and Illiteracy Rates for Selected Islamic Countries
1994-1998 (as fractions, from the *World Development Indicators*, 2001)

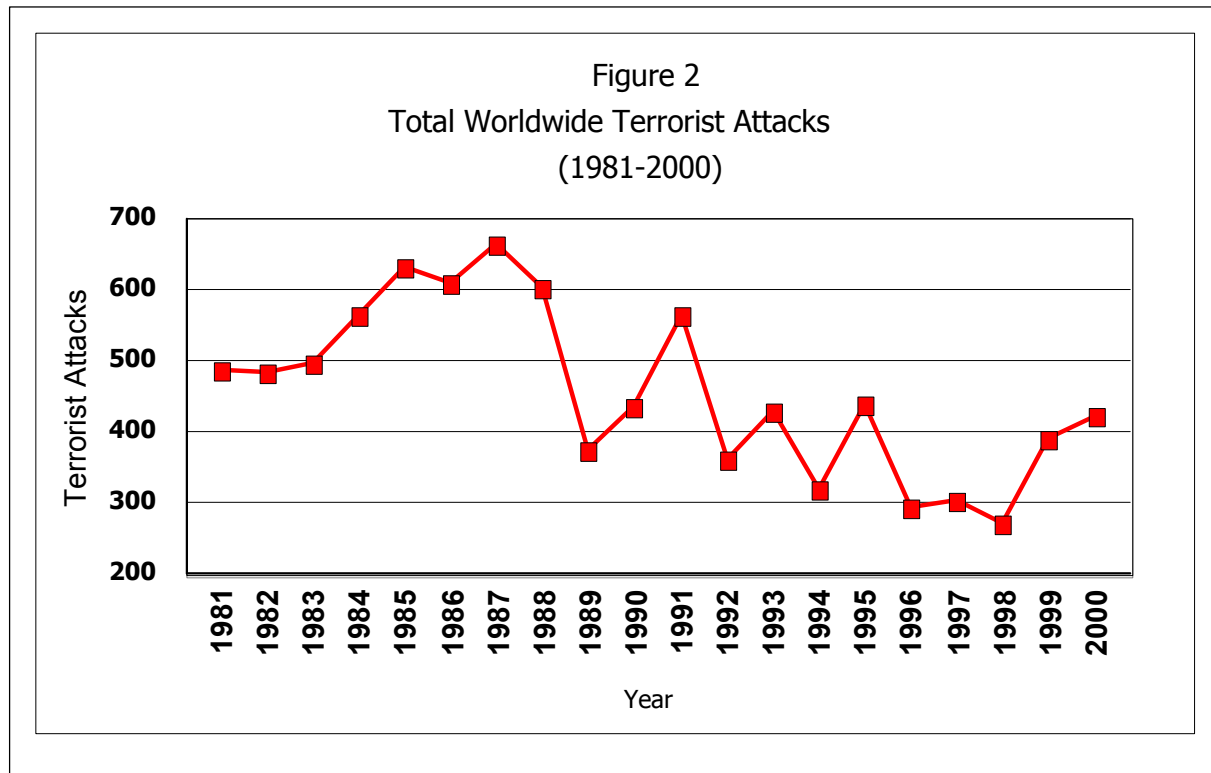
	Egypt	Indonesia	Iran	Iraq	Malaysia	Pakistan	India	Saudi Arabia	Turkey
Real per capita GDP growth rate	0.033	- 0.009	0.013	---	0.017	0.008	0.039	- 0.012	0.042
Illiteracy rate	0.48	0.156	0.279	0.484	0.149	0.579	0.459	0.268	0.173

²⁴ It also bears noting that the death rate from the terrorist attack on the world trade centers was substantially higher than anticipated by the terrorists. Bin Ladin, evidently, anticipated that the damage would be concentrated on the floors struck by the air planes and, even with luck, affect only the top floors of the building.

A few important countries do report negative growth and others do not report GDP accounts at all to the World Bank. However, the downward spiral in these economies has been underway for many years. Thus, it seems unlikely that a sudden increase in the number of terrorists would be forthcoming in the immediate future as a consequence 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 American policies are not becoming more provocative, perhaps technological breakthroughs or greater access to weapons of mass destruction will allow much higher "destructively" in future terrorist attacks. The worst weapons that might eventually be in the hands of terrorists are very powerful, but, again, most of these 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 the weapons directly. Nuclear weapons are available in Pakistan, which is a relatively unstable Islam polity, and could conceivably collapse in a manner that allowed greater access to their weapon's stock. But this problem, too, has existed for many years. Moreover, the September attack used preexisting technologies, jet liners, rather than new weapons of mass destruction to achieve

their terrible results.



Overall, the risk that more effective methods of terrorism will fall into the hands of terrorist groups cannot be ignored. Although these risks are increasing somewhat, they are not obviously increasing at significantly higher rate than they have in the recent past.²⁵

VI. Conclusions

The political nature of terrorism distinguishes it from ordinary crimes. The extremely costly and generally illegal method used by terrorist to send their political messages distinguishes terrorism from ordinary interest-group politics. This is not to say that ordinary criminals never have political agendas, nor that ordinary interest groups never make use of illegal means to send messages. There is a continuum of criminal and

²⁵ The total number of terrorist incidents appears to be trending downward somewhat, although the number of deaths has been relatively stable. This suggests that the probability of a fatal attack has increased somewhat during the past decade, as the Enders and Sandler (2000) results affirm. See figures 1 and 2 in the appendix. Enders and Sandler attribute the increased deadliness of terrorist attacks to the increased religiosity of the attackers, rather than to a shift in terrorist technologies.

interest-group activities, and terrorism is simply a name for a particularly destructive subset of the joint domain of interest-group politics via criminal means. That same continuum of political conflict and methods extends beyond terrorism to encompass ever more intense and violent conflicts between nation states, including those in which national survival is truly at risk. All these political contests have many common analytical properties, but also exhibit relevant differences in both the intensity of conflict and in the methods used. The boundaries between these political activities are necessarily somewhat indistinct as is often the case for ranges within a continuum, as with the boundary "between" blue and violet within our color spectrum.

However, the distinction between terrorist networks and ordinary interest-group politics is generally clear. Although both types of groups send political messages and may, in some cases, advocate similar public policies or forms of governance, ordinary interest groups develop their cases with words, rather than 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 American context, where an absolute right of political speech is "guaranteed" 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 to discourage and punish extreme forms of terrorism are warranted than for minor transgressions, other things being equal.

However, to conclude that extreme methods for 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 can be justified, but the proper extent of such efforts has to be judged relative to the resources that we devote to reducing other risks that we confront on a day-to-day basis in our ordinary lives.

The overwhelming support for antiterrorism legislation in Fall 2001 may reflect in part the success of the terrorist attacks--that is to say the effect of terror--an exaggerated sense of the damages and probability of terrorist attacks. Worst-case scenarios for terrorist attacks are very bad, but this is a property of worst-case scenarios rather than of terrorist attacks, per se. The worst possibilities that can be imagined for most activities are horrific. Would anyone drive to the office or send their 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 enjoy very limited and cautious lifestyles. Such risks can only be brought into perspective by assigning probabilities to all possibilities, not just the worst ones.

The present analysis suggests that the risk of terrorism is below those of many others that we face in our ordinary lives, and that there are no obvious reasons 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 done entirely within the criminal justice system. The international nature of many terrorist networks clearly implies that punishing those networks 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 accomplished within our existing constitutional framework with an effective prudent pattern of public policies and sanctions for criminal methods of political speech.

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