

The Costs of Terrorism and the Costs of Countering Terrorism

David Gold
New School University

International Affairs Working Paper 2005-03
March 2005

Paper prepared for presentation at the annual meeting of the Eastern Economic Association, New York, March 5, 2005, at a session, The Costs of War, organized by Economists for Peace and Security. This version, March 15, 2005

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David Gold*

Graduate Program in International Affairs

New School University

66 West 12th Street; Room 614

New York, N. Y. 10011

goldd@newschool.edu

www.gpia.info

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ABSTRACT

This paper reviews evidence on the economic costs imposed on target populations by acts of terrorism, and the costs that are borne by efforts to combat terrorism. The costs from terrorist activities have been studied for New York, Spain, Israel and other locations. Countering terrorism involves out-of-pocket and opportunity costs, cost associated with financing methods, and costs associated with changes in the behavior of market participants. Less well studied are the costs of misplaced policies, including the creation of unwieldy bureaucratic structures, the use of threat assessments to distort political outcomes, and the failure to utilize relevant conceptual and empirical tools in the formulation of policy responses.

* I would like to thank the Proteus Fund for financial support. The conclusions reached in this paper, and any remaining errors, are solely the responsibility of the author.

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David Gold

Introduction

Since September 11, 2001, the United States has been engaged in a global war on terror, which, in U. S. government circles, has become known by its acronym, GWOT. Wars, whatever their rationale, usually require the society waging them to bear considerable costs. My purpose in this paper is to raise some of the issues and analyze some of the evidence regarding the costs to the U. S. economy of engaging in a global war on terror.

The paper will discuss three aspects of the war on terror, the costs from acts of terror perpetrated against the U. S., the costs from measures taken by the public and private sectors to combat terrorism, and how policies might be formulated with such costs in mind to more effectively deal with the threats from terrorism.

Costs of Terrorism

Terrorist incidents impose large direct costs upon individuals and societies. Indeed, the imposition of economic and non-economic costs is clearly a purpose of terrorist violence. The costs imposed by a single incident of terrorism are generally not large in relation to the size of the economy in question. In the case of the 9/11 attacks in the United States, while the personal costs borne by those directly involved are immense and can linger for substantial periods of time, and while the magnitude of loss measured in dollars appears huge—\$33 to \$36 billion in New York City alone, according to estimates by economists at the Federal Reserve Bank of New York² — the destruction of physical and human capital and related loss of output was quite small in relation to the

¹ Portions of this paper first appeared in David Gold, “Economics of Terrorism,” Columbia International Affairs Online (CIAO), July 2004 www.ciaonet.org

² Jason Bram, James Orr, and Carol Rapaport, “Measuring the Effects of the September 11 Attack on New York City,” and Jason Bram, Andrew Haughwout, and James Orr, “Has September 11 Affected New York City’s Growth Potential?” Federal Reserve Bank of New York *Economic Policy Review* 8:2 (November 2002), www.nyfed.org/research/epr/2002.html. For additional estimates of the costs of 9/11, see Robert Kelleher, “The Economic Costs of Terrorism,” Joint Economic Committee, United States Congress, May 2002, www.house.gov/jec/terrorism/costs.pdf

size of the economy. Although business activity, and especially air travel, suffered setbacks, the national economy recovered quickly and within a year was again dominated by the trends and cyclical patterns in place prior to 9/11. This quick recovery has been attributed, in part, to effective policy actions in the aftermath of 9/11 and the resilience of U. S. institutions, especially in the financial sector.³ Recovery in the New York area has been slower, and among the activities that suffered considerable losses after 9/11 were finance, air transportation as the decline in air traffic affected employment and come associated with the two major airports, Kennedy and LaGuardia, and businesses related to tourism, including hotels, restaurants and the theater.⁴

When terrorism persists over time, the costs can mount. Countries or regions that depend heavily on tourism have been found to suffer significant economic losses from the persistence of terrorism, losses that have been documented for the Basque region in Spain, as well as for Austria, Egypt, Greece, India, Israel, Italy, Kenya, and Turkey.⁵ Terrorism also appears to reduce inflows of foreign direct investment.⁶ The Bank of Israel estimated that the country's 2002 GDP was down by between 3 and 3.8 per cent as a result of the second *Intifada*, which began toward the end of 2000. The initial negative impacts on tourism, exports to the Palestinian territories, and construction were magnified as individuals began to translate the persistence of terrorist incidents into perceptions of a long-term decline in their income, and reduced their level of consumption.⁷ Such a response can in turn have multiplier effects, as reduced demand

³ Andrew H. Chen and Thomas F. Siems, "The Effects of Terrorism on Global Capital Markets," *European Journal of Political Economy*, 20 (2004), 349-366.

⁴ Michael L. Dolfman and Solidelle F. Wasser, "9/11 and the New York City Economy: A Borough-by-borough Analysis," *Monthly Labor Review* 127, 6 (June 2004), 3-33, www.bls.gov/opub/mlr/mlrhome.htm

⁵ Alberto Abadie and Javier Gardeazabal, "The Economic Costs of Conflict: A Case-Control Study for the Basque Country," National Bureau of Economic Research Working Paper No. W8478, September 2001, www.nber.org/papers/W8478; Todd Sandler and Walter Enders, "An Economic Perspective on Transnational Terrorism," *European Journal of Political Economy*, 20, 2 (June 2004), 301-316, available at www-ref.usc.edu/~tsandler/complete-terror02.pdf; Arthur Andersen, Inc., "Tourism and Terrorism – The Road to Recovery in Egypt," December 2000, www.hotel-online.com/Trends/Andersen/2001_Egypt.html; William Wallis, "Terror Takes Toll on Kenya's Tourism Industry," *Financial Times*, December 8, 2003; Reecha Dhariwal, "Tourist Arrivals in India: How Important are Domestic Disorders," Indira Ghandi Institute of Development Research, 2003, www.ssrn.com/abstract=390666.

⁶ Walter Enders and Todd Sandler, "Terrorism and Foreign Direct Investment in Spain and Greece," *Kyklos* 49:3 (1996): 331-52.

⁷ Bank of Israel, "The Economy: Development and Policies," *Bank of Israel Annual Report – 2002*, July 2003, www.bankisrael.gov.il/deptdata/mehkar/doch02/eng/dochoze.htm#topart1. Zvi Eckstein and Daniel Tsiddon, "Macroeconomic Consequences of Terror: Theory and the Case of Israel," *Journal of Monetary Economics*, 51, 5 (July 2004), 971-1002, conclude that the combination of shifts in government

leads to less production, less demand for labor, less investment, and a general slowdown in economic activity. The Israeli example shows how terrorism can adversely affect forward-looking behavior that in turn influences a wider range of economic activities. The relatively quick recovery in economic activity in the U. S. may reflect a widespread perception that 9/11 was a single event and not part of a pattern likely to be repeated.

The Costs of Countering Terrorism

Fighting terrorism requires resources, so it does impose a direct economic cost. When terrorism is perceived as a threat, businesses, individuals, and governments spend more on security (including, for example, public sector outlays for homeland security). Government and private spending on security is expected to grow by between 100 and 200 per cent by the end of the decade and the private security industry in the U. S. is booming.⁸ These costs reduce the resources available for other purposes, and shift resources toward providing security and insurance services. Those who supply the services in demand experience an upturn in their businesses, but this is at the expense of other activities that are likely to be more productive. In addition, higher business costs, such as insurance premiums, are passed on to consumers. To the extent that these added security-related outlays reduce or even eliminate the threat of terrorist incidents, they can at best restore a *status quo ante*, but they do not, in general, provide the type of economic stimulation that is cumulative over time.

There are also costs resulting from anti-terrorist activities that are harder to quantify. Tighter security at airports and seaports increases the costs of travel for both tourists and business travelers and the costs associated with shipping goods, especially when time is factored in as a cost. Indeed, firms that have adopted just-in-time inventory systems and rely on cross-border shipments feel these added costs during periods of

expenditures towards greater security-related outlays, and changes in private behavior away from forward-looking activities, cost the Israeli economy five percentage points of per capita GDP during the first three years of the second *intifida*.

⁸ Joshua Chaffin, "American's See Profit in Terror Protection," *Financial Times*, April 3, 2004; Paul Magnussen et al, "Welcome to Security Nation," *Business Week*, June 14, 2004; Mark Huband, "Fight Against Terror Spawns a New Industry," *Financial Times*, December 3, 2003.

heightened terrorist alerts.⁹ Transport costs can be a significant trade barrier, and if tighter security raises the costs of shipping, it can potentially penalize a country's trading partners, even if they have no links to terrorism.¹⁰ Tighter immigration restrictions represent another cost, making it harder for skilled workers to move across borders. Business travelers to the U. S. report increased difficulties in gaining entry, and "(m)any say they are inclined to do business elsewhere if they have the choice."¹¹ In another example, a 32 per cent drop in foreign applications to U. S. universities has been attributed to a more difficult visa application process instituted in the aftermath of 9/11.¹² The outcry from business and university leaders has led to a modification of some restrictions and a speeding up of the visa granting process, but the obvious trade-off between security and economic efficiency is well illustrated by this example.¹³ And in a related example, restrictions on the transport of pathogens in the U. S. has impeded biomedical research in a number of areas, including research that might contribute to bio-defense related activities.¹⁴ These costs can have been described as a tax on economic activity, which "do[es] nothing to increase the quantity or quality of the supply of goods and services" and "may adversely impact both the economy's productivity growth and long-term potential growth rate."¹⁵

The most visible forms of anti-terrorist expenditures are those undertaken by governments. The United States created a Department of Homeland Security after 9/11. While most of the activities contained within the new department had been assigned to

⁹ Daniel Altman, "Uncertain Economy Hinders Highly Precise Supply System," *New York Times*, March 15, 2003.

¹⁰ See, e.g., Ximena Clark, David Dollar, and Alejandro Micco, "Port Efficiency, Maritime Transport Costs and Bilateral Trade," National Bureau of Economic Research Working Paper W10353, March 2004 www.nber.org/papers/w10353; Patrick Lenain, Marcos Bonturi and Vincent Koen, "The Economic Consequences of Terrorism," Economics Department Working Papers no. 334, Organization for Economic Cooperation and Development, July 2002, www.oecd.org/eco.

¹¹ Edward Alden, "No Entry: Tougher Visa Controls are Creating Barriers to American Business," *Financial Times*, July 2, 2004.

¹² Christopher Grimes, "Universities in US Hit by Tighter Visa Demands," *Financial Times*, April 29, 2004.

¹³ "Relaxed US Visa Rules to Lure More Asian Students," *Financial Times*, February 15, 2005; Government Accountability Office, "Streamlined Visas Mantis Program has Lowered Burden on Foreign Science Students and Scholars, but Further Refinement Needed," GAO-05-198, February 2005, www.gao.gov.

¹⁴ Dana Wilkie, "Select-Agent Security Clearance Stymies Research," *The Scientist*: 18, 10 (May 24, 2004) www.the-scientist.com.

¹⁵ Robert Kelleher, "The Economic Costs of Terrorism," 3.

existing departments and agencies prior to the terrorist attacks, new activities have been added, and the older ones have been given new urgency. Budgetary outlays for homeland security jumped from \$15 billion in Fiscal Year (FY) 2001, prior to 9/11, to \$32 billion in FY2003. Of course, spending by the Defense Department, the Justice Department, the Treasury Department, and other government agencies, probably also including the Central Intelligence Agency (whose budget is never made public) has jumped as a result of activities undertaken in the war against terrorism.

Government spending, of course, has a demand-stimulating impact, especially when financed by deficits. In the U.S., security spending tends to have a smaller effect on aggregate demand than most alternatives, in part because security-related outlays tend to have substantial external leakages, as illustrated by the continuing spending for the occupations in Afghanistan and Iraq. All outlays entail opportunity costs, in that spending in one area implies less spending in another. To take the U.S. as an example, increased spending on national defense and homeland security has been accompanied by smaller than anticipated increases in spending in areas that are potential contributors to economic growth. For example, a number of federal government civilian programs in health care and education, which are important components of human capital formation, have already had their funding growth curtailed and are slated for funding cuts in the future.¹⁶

The question of how security is financed is one of long standing, with numerous economic implications. Governments rarely finance wars through taxation, and the war against terror is no exception.¹⁷ The Bush Administration had adopted a tax-cutting agenda prior to 9/11, and has expanded rather than cut back on this policy despite the rapid growth of security-related spending since the terrorist attacks. The combination of spending growth and tax cuts has led to high federal budget deficits, which have increased the likelihood of significant upward movements in interest rates. In the view of

¹⁶ Richard Kogan and David Kamin, "President's Budget Contains Larger Cuts in Domestic Discretionary Programs than has Been Reported," Center on Budget and Policy Priorities, February 5, 2004, www.cbpp.org/2-5-04bud.htm;

¹⁷ Only one war in United States history, the Korean War, was wholly financed by taxation. The 1991 Gulf War was largely funded by contributions from members of the coalition that fought with the United States. Every other war since the American Revolution was financed largely by some combination of debt issuance and new money creation. See, e.g., Lee E. Olhanian, "The Macroeconomic Effects of War Finance in the United States: World War II and the Korean War," *American Economic Review* 87:1 (March 1997): 25.

some knowledgeable observers, these developments could impose costs on the economy in the future, in terms of foregone growth opportunities, especially in the context of the need to allocate greater resources to an aging population.¹⁸ Moreover, there has been a trickle-down effect from the federal tax cuts. State governments use essentially the same base for income and wealth tax purposes as the federal government, leading to revenue shortfalls at the state level as the federal government cuts tax rates. With states unable to run deficits, they are forced to cut spending. Heavy losers have been health care, education, and public safety, including police, fire and emergency medical service—the much-praised “first responders” who performed so well on 9/11.¹⁹

These considerations suggest that, even when economies recover from specific terrorist incidents, they might still bear substantial costs in the long term. These costs emanate from the implicit taxation imposed by the measures taken to fight terrorism, the opportunity costs of anti-terrorist actions that influence economic growth, and the methods adopted to finance anti-terrorist activities. These costs will tend to reduce an economy’s growth potential over time.

Policies to Combat Terrorism

Ideally, policies would be formulated to provide the highest probability of achieving desired outcomes at the least possible costs, where costs include not just out-of-pocket expenditures but also opportunity costs and indirect costs in terms of the effect of policies on incentives and behavior. U. S. counter-terrorism policies have had a number of notable successes, for example, in foiling some planned attacks, rolling up some terrorist financing networks, weakening some terrorist organizations, removing Afghanistan as a state sponsor of terrorism, and strengthening some key international linkages. At the same time, while no major terrorist incident directed at the U. S. proper

¹⁸ See, e.g., Martin Muhleisen and Christopher M. Towe, eds., *U.S. Fiscal Policies and Priorities for Long-Run Sustainability*, Occasional Paper No. 227 (Washington, D.C.: International Monetary Fund, January 7, 2004).

¹⁹ Nicholas Johnson and Rose Ribeiro, “Severe State Fiscal Crisis May be Worsening,” Center on Budget and Policy Priorities,” May 9, 2003, www.cbpp.org/5-9-03sfp2.htm. See, e.g., Joseph A. Barbera, Anthony G. Macintyre, and Craig A. DeAtley, “Ambulances to Nowhere: America’s Critical Shortfall in Medical Preparedness for Catastrophic Terrorism,” in *Countering Terrorism: Dimensions of Preparedness*, eds. Arnold M. Howitt and Robyn L. Pangi (Cambridge, MA: MIT Press, 2003). Cuts in funding for first responders have also been noted at the federal level; see, e.g., Robert Block, “Police, Firefighters to Get Less,” *Wall Street Journal*, February 3, 2004.

has occurred since 9/11, many experts believe that the probability of such an incident is greater, not lower. By most accounts, terrorist recruitment is up, and terrorist organizations have been continuously reorganizing. Moreover, while there is no overall assessment of policy effectiveness, there have been numerous highly critical analyses of specific policy initiatives, including a number, for example, from the Government Accountability Office. In the remainder of this section, I will discuss three aspects of the analysis of policy formulation.

The costs of bureaucracy: a principle-agent problem?

It should not be assumed that increases in spending equate to, or even approximate, increases in effectiveness with respect to security-related problems. Specific defense expenditures have been challenged in terms of whether their existence reduces a nation's ability to engage in other, more effective, activities. The U.S. defense budget includes several large "legacy" weapons systems, including, for example, the F-22 high-performance fighter aircraft, which was originally designed to counter expected next-generation Soviet systems. With the breakup of the Soviet Union, this threat has not materialized and is not expected to, yet the system remains and accounts for \$72 billion in future spending commitments, not counting likely future cost growth.²⁰ Indeed, the overall defense program will require extensive further spending increases if all programs currently in place are carried out. With tax cuts, high deficits, and demands for spending growth in other areas, this is a classic recipe for a budgetary "train wreck."²¹

In another example, the U.S. has still not created a single database of suspected terrorists, relying instead on lists from eight different agencies. This situation has persisted since the first World Trade Center bombing in 1993, when the problem first received national attention, and continues after 9/11, despite the fact that President Bush

²⁰ For an analysis of how the Department of Defense has attempted to redefine the mission of the F-22, see United States General Accounting Office, *Changing Conditions Drive Need for New F/A-22 Business Case*, GAO-04-391, March 15, 2004, www.gao.gov/cgi-bin/getrpt?GAO-04-391. An overall evaluation of flaws in the defense budgetary process is Winslow Wheeler, *The Wastrels of Defense: How Congress Sabotages U. S. Security*, Annapolis, MD, Naval Institute Press, 2004.

²¹ See Steven Kosiak, "Cost Growth in Defense Plans," Center for Strategic and Budgetary Assessments, August 26, 2003, www.csbaonline.org; and David Gold, "The Coming Bush Defense Budget Train Wreck in Historical Perspective," paper presented at the New School University Study Group on the Economics of Security in a Post 9/11 World, November 14, 2003, at www.worldpolicy.org/projects/110503SG.html.

on several occasions publicly committed the government to creating a single, effective list. On December 1, 2003, an inter-agency body, the Terrorist Screening Center (TSC), was opened within the FBI to consolidate data, weed out obsolete information, and develop new technology to better identify suspected terrorists. However, the TSC suffers “from the lack of a dedicated budget” and “ongoing failures to obtain the cooperation of several agencies to share their information....” In the view of one critic, the TSC “is a hollow box.”²²

At the same time, a number of programs that are more directly involved with counter-terrorist activities have had trouble securing adequate funding. One is the Cooperative Threat Reduction Program—popularly called Nunn-Lugar, after its sponsors in the Senate—designed to fund the securing of fissile materials within the former Soviet Union. While this effort to address the so-called “loose nukes” problem has run into a number of difficulties involving officials and institutions in the former Soviet Union, it has also been consistently funded at sub-optimal levels, and has received less than adequate support within the various U.S. government bureaucracies.²³

These examples of under-funding counter-terrorism activities suggest the importance of relative cost-benefit analyses in evaluating a given program’s effectiveness. While governments often treat their resources as infinitely expandable, the reality is that large increases in one set of programs often necessitate cutbacks in other programs. In the area of security, the massive increases in offensive military operations and programs since October of 2001 have not been accompanied by an equivalent growth in programs that are primarily defensive in orientation, as well as those that could be classified as preventive. In some cases, administration budget officials have acted to restrict the growth of defensive programs, on the grounds that budgetary resources are too limited. Programs are usually approved without comparative evaluations, and those with the strongest political, institutional, and regional support have the upper hand. The result can be a weakening, not a strengthening, of the U.S. security posture.

²² Robert Block, Gary Fields, and Jo Wrighton, “U.S. ‘Terror’ List Still Lacking,” *Wall Street Journal*, January 2, 2004.

²³ Richard Lugar, “Eliminating the Obstacles to Nunn-Lugar,” *Arms Control Today* 34:2 (March 2004), www.armscontrol.org/act/2004_03?lugar.asp.

At one level, these are the latest of a long series of examples of a principle-agent problem, where bureaucratic interests exert influence in policy formulation and budgetary allocations that can run counter to those of the principle, in this case the chief executive or department head, presumably themselves acting as agent of the electorate. However, an alternative is to see these as examples of agent-principle problems, whereby agents and segments of the population achieve mutual benefits through the protection of programs that, in the context of a global war on terror, appear to have a high opportunity cost.²⁴

The costs of misplaced emphasis: the politics of fear

Terrorism is a complex phenomenon, and countering terrorism requires a wide range of tools: security (military and policing), politics and diplomacy, economic and social policy, etc. Yet frequently, it is the security aspect that is emphasized above all others. When an act of terrorism occurs, the response of governments is usually to first retaliate in kind, and then formulate a series of additional measures designed to punish and weaken the perpetrators. This punishment/deterrence formula has a number of advantages. It provides a sense of immediate gratification, as the shock of experiencing an attack is quickly followed by the satisfaction of inflicting punishment on those responsible. For a government, this conveys a sense of legitimacy, since it has done “something” to satisfy the citizenry’s desire for a visible response.

Responding to a terrorist event after it occurs may also be justified on comparative cost grounds. The main alternative to the punishment/deterrence model is a preventive model, where the root causes of terrorism are addressed in order to limit—or possibly even prevent—its growth. But since the number of actual terrorist incidents is far less than the number of potential terrorist incidents, decisions regarding resource allocation are easier when security agencies concentrate on responses. A similar problem occurs in local policing, where police agencies do not have the resources to deploy personnel at all possible places where crimes might take place. Instead, they seek to patrol those locations deemed most likely to experience crime, or locations where the

²⁴ As an example, we may be seeing the development in the United States of a “terror-industrial-complex”. See, e.g., Louis Uchitelle and John Markoff, “Terrorbuster Inc.” *New York Times Magazine*, October 17, 2004.

consequences of crime might be greatest in terms of the value of property or the possible loss of life, and then devote substantial resources to detection and apprehension once crimes are committed. In local policing efforts, prevention focuses on enhancing security through such mechanisms as alarm systems, street lighting, effective emergency call-in services, etc.

There is, however, another side to the issue of comparing strategies: the relative benefits to be gained. Responding in kind to terrorist incidents may be psychologically and politically satisfying, but it is not clear if it is effective. It may, of course, be hard to evaluate effectiveness, since it is difficult to measure the number and size of terrorist operations that are *not* undertaken because of effective deterrence. However, there is considerable evidence that retaliatory behavior does not, in general, reduce the incidence of terrorist activity. Retaliation may, in fact, stimulate more activity by raising the political stakes, especially in situations where more than one group is competing for the allegiance of a population.²⁵

The prevalence of retaliatory behavior by governments may be related to the politics of fear. For example, individuals appear to place a much higher priority on countering terrorism, in terms of their willingness to commit public resources and political capital, than they do on offsetting the risk of death, injury, or property damage from automobile accidents, even though the latter regularly produce far more casualties and impose far greater direct costs than the former.²⁶ There are, of course, many differences between the two events. Driving is an activity subject to private decision-making that brings benefits along with risks, and both individuals and societies take

²⁵ This is the argument developed by Mia Bloom, "Palestinian Suicide Bombing: Public Support, Market Share, and Outbidding," *Political Science Quarterly*, 119, 1 (Spring 2004), 61-88. In another example, after the Lockerbie incident, widely attributed to Libya, President George H. W. Bush and his national security adviser General Brent Scowcroft decided that military retaliation was counter-productive, and shifted U. S. policy towards Libya to emphasize sanctions and diplomacy.

²⁶ There were over 42,000 deaths from automobile accidents in the United States in 2001, with a total estimated cost of \$230 billion, which means that more people were killed every twenty-five days in auto accidents than died in the 9/11 terrorist attacks. Of these deaths, 41%, or 17,400, were alcohol related, and the estimated cost of these was greater than \$100 billion, or three times the estimated costs of all damages from the 9/11 terrorist attacks in New York. See U.S. Department of Transportation, Office of Public Affairs, "USDOT Releases 2002 Highway Fatality Statistics," July 17, 2003, www.nhtsa.dot.gov/nhtsa/announce/press/index.cfm, and "Impaired Driving in the United States," www.nhtsa.dot.gov/people/injury/alcohol/impaired_driving_pg2/US.htm. In Israel during the second *intifada*, the number of traffic-related deaths is almost exactly the same as the number of deaths from terrorism. See Eckstein and Tsiddon, op. cit.

actions to reduce those risks and minimize the costs, such as wearing seat belts, supporting publicly funded driver education and laws mandating insurance coverage, buying cars with air bags, etc. Another difference is that the potential upside risk from terrorism is huge, even if the probability of experiencing a catastrophic event is extremely low. Perhaps the most important difference, however, is that the possibility of being subject to terrorist attack invokes a considerable amount of fear and anger, which leads to a willingness to accept costs and policies that appear to be out of proportion to the potential benefits that they might produce.

A possible example of this phenomenon is the war in Iraq. The war in Iraq has considerable budgetary costs, which can also be seen as considerable opportunity costs in terms of cutbacks in other programs and rising budget deficits. There are also large future costs as measured by the loss of life and long-term disabilities among military and civilian personnel and the consequent loss of their future contributions to the economy, diversion of civilian resources from mobilization of the Reserves and National Guard, equipment replacement, higher costs of future personnel recruitment, etc. Moreover, there is some evidence that the diversion of military resources to Iraq has had negative impacts on security in Afghanistan, and in Southeast Asian shipping lanes where an upsurge in piracy is, in part, attributed to the shift of U. S. Navy resources to the Persian Gulf.

Whatever the Bush Administration's underlying rationale for going to war, the public face of the war was linked to rising fears related to 9/11. While the U. S. government maintains that deposing the Saddam Hussein regime was an element of the global war on terror, there is very little reliable evidence that the Iraqi government was a significant supporter of terrorist activity and essentially no evidence it was a supporter of Al Qaeda. However, since the regime's overthrow, a wide range of expert opinion has judged that the threat to the U. S. and U. S. interests and activities abroad is at least as great if not greater than previously. Indeed, despite successful regime changes in Afghanistan and Iraq, terrorist organizations remain strong. George Tenet, then Director of the Central Intelligence Agency, testified before Congress in March 2004, a year after the beginning of the Iraq War, that, as compared with a year earlier, "The world ... today is equally, if not more, complicated and fraught with dangers for United States

interests....”²⁷ Porter Goss, current CIA Director, testified in February 2005 that terrorists are utilizing the continuing conflict in Iraq as a recruiting tool and, in effect, as a training ground to create experienced operatives who “represent a potential pool of contacts to build transnational terrorist cells, groups and networks”²⁸ Others with similar, and stronger, views cut across the political spectrum, including former National Security Council terrorism experts Daniel Benjamin and Richard Clarke, former head of the CIA’s Bin Laden unit Michael Scheur, retired Marine four star general Anthony Zinni, long-time Middle East military specialist Anthony Cordesmann, terrorism expert Jessica Stern and analysts at the National Intelligence Council, the International Institute of Strategic Studies in London and the Jaffee Center at Tel Aviv University in Israel. While suffering setbacks, Al Qaeda has reorganized itself into a loose confederation and, along with other groups, remains a serious threat.²⁹ It is hard to escape the conclusion that, at least to the present, the U. S. invasion and occupation of Iraq would do poorly in a cost benefit analysis of its contribution to the objectives of the Global War on Terror.

Do they “just hate us”? : conceptual bases of anti-terrorism policies

Since 9/11, there has been extensive discussion and considerable research on possible links between economic deprivation and the proclivity to engage in terrorism in a number of populations. A number of cross-section empirical studies have concluded that variables such as poverty, inequality and education have little or no statistical explanatory power in explaining the incidence of terrorism or the proclivity of individuals to engage in terrorist activity, and that political variables, such as the extent of civil liberties, carry far more explanatory weight.³⁰ At the same time, studies that look at

²⁷ George J. Tenet, “The Worldwide Threat 2004: Challenges in a Changing Global Context,” Testimony of Director of Central Intelligence before the Senate Armed Services Committee, March 8, 2004, www.cia.gov/cia/public_affairs/speeches/2004/tenet_testimony_03092004.html.

²⁸ Porter J. Goss, “Global Intelligence Challenges 2005: Meeting Long-Term Challenges with a Long-Term Strategy,” Testimony of director of Central Intelligence before the Senate Select Committee on Intelligence, February 16, 2005, www.cia.gov/cia/public_affairs/speeches/2004/Goss_testimony_02162005.html.

²⁹ Jessica Stern, “The Protean Enemy,” *Foreign Affairs*, 82:1 (July/August 2003): 27-40.

³⁰ Alan B. Krueger and Jitka Maleckova, “Education, Poverty and Terrorism: Is There a Causal Connection?” *Journal of Economic Perspectives* 17:4 (Fall 2003); Alan B. Krueger and Jitka Maleckova, “Does Poverty Cause Terrorism?” *The New Republic*, June 24, 2002; Claude Berrebi, “Evidence About the

changes in relative and absolute economic positions over time do find variables that measure deprivation to be statistically significant in explaining the number of incidents or the propensity to engage in terrorist activities.³¹ As in any other field of empirical research, there are a number of measurement, conceptual and methodological issues that have yet to be resolved.

While useful, such studies tend to provide a partial picture, at best, in some cases a bit like studying the evolution and behavior of an industry by analyzing the motives behind the behavior of its labor force. At least of equal if not greater importance are the reasons behind the evolution of the firms that comprise the industry, and which help establish the incentives by which labor is recruited. To carry this analogy a bit further, terrorist acts are carried out by individuals but in the context or organizational objectives and resources, summarized, perhaps, by an epigram used by *The Economist* to lead an article, “Suicide bombing is a corporate activity.”³²

Research on terrorist organizations suggests three lines of thinking that might help sharpen policy responses. The first is that terrorist organizations are rational in the sense economists use that term, namely they respond to incentives and are constrained by their access to resources. In one example where retaliation may have had a minimal impact, after the bombing of a Berlin discothèque in 1986, the U.S. launched an attack against targets in Libya. In the following months, the incidence of terrorist attacks against U.S. and U.K. targets first increased, then tapered off, and then resumed its previous level. It

Link Between Education, Poverty and Terrorism Among Palestinians,” Princeton University Industrial Relations Section Working Paper #477, September 2003, www.princeton.edu/~cberebi/edu-pov-terror.pdf; James A. Piazza, “Rooted in Poverty?: Terrorism, Poor Economic Development and Social Cleavages,” *Terrorism and Political Violence*, forthcoming; Alberto Abadie, “Poverty, Political Freedom, and the Roots of Terrorism,” National Bureau of Economic Research Working Paper 10859, October 2004; An empirical study utilizing a large, cross-national data set concluded that enhanced civil liberties and stronger economic growth were both effective in reducing support for political violence, with the effect resulting from enhanced civil liberties being quantitatively more important. Robert MacCulloch and Silvia Pezzini, “The Role of Freedom, Growth and Religion in the Taste for Revolution,” The Suntory Centre, London School of Economics and Political Science, September 2002, sticerd.lse.ac.uk/dps/di/dedps36.pdf.

³¹ Basel Saleh, “Economic Conditions and Resistance to Occupation in the West Bank and the Gaza Strip: here is a Causal Connection,” *Topics in Middle Eastern and North African Economics*, 6 (September 2004); Edward Sayre, “Labor Market Conditions, Political Events and Palestinian Suicide Bombings,” Department of Economics, Agnes Scott College, January 17, 2005; S. Brock Blomberg, Gregory D. Hess and Akila Weerapana, “Economic Conditions and Terrorism,” *European Journal of Political Economy*, 20, 2 (June 2004), 463-478.

³² The Economist, “Special Report: Suicide Terrorism: Martyrdom and Murder,” *The Economist*, January 10, 2004.

appears that the U.S. retaliation induced terrorists to move planned operations forward in time, as a response to the U.S. action, but did not reduce the total number of incidents.³³ As this example illustrates, terrorists have shown themselves willing and able to shift tactics, or to change the time or location of operations. Terrorist groups behave as if they are cost constrained, and therefore choose tactics they believe to be cost-effective. If the relative costs of one avenue of action are raised, or the perceived benefits change, timing and tactics can also change in response.³⁴

This propensity for substitution behavior has implications for policy. For example, in the present security context, the U.S. has expended substantial resources to improve airline safety since 9/11 but has been much slower, and has devoted far less resources, to improving shipping security. As of early 2003, only four per cent of containers arriving at U.S. ports were subject to inspection, and there have been identifiable lags in the development and application of inspection technology.³⁵ This failure is particularly conspicuous in light of the fact that terrorism experts have identified incoming shipping as the most likely means for a terrorist group to import weapons of mass destruction into a country, a possibility that would appear even more likely with the intensification of airport security.³⁶

Second, at least some terrorist organizations have adopted, and in some cases appear to have moved heavily towards, economic agendas. Terrorist groups, criminal organizations, and participants in civil wars—whatever their original motives—become increasingly concerned with the business of making money and with the provision of social and economic services that governments are either incapable or unwilling to

³³ Walter Enders and Todd Sandler, “The Effectiveness of Anti-Terrorism Policies: Vector Autoregression-Intervention Analysis,” *American Political Science Review* 87:4 (1993): 829-44. A similar pattern has been observed regarding Israeli retaliation against Palestinian attacks.

³⁴ See, e.g., Enders and Sandler, “The Effectiveness of Anti-Terrorism Policies”; and Jurgen Brauer, “On the Economics of Terrorism,” March 12, 2002, www.aug.edu/%7Esbajmb/.

³⁵ Daniel Machalaba, “Lack of Funding Hampers Efforts to Secure U.S. Ports,” *Wall Street Journal*, April 21, 2003.

³⁶ Cindy Williams, a former Congressional Budget Office defense budget specialist, has estimated that shifting \$5 billion from the Defense Department’s budget would allow the U.S. to increase inspection of shipping containers by a factor of ten. Cindy Williams, “Paying for the War on Terrorism: U.S. Security Choices since 9/11,” paper prepared for ECAAR panel, Allied Social Sciences Association annual meetings, January 5, 2004, www.ecaar.org/Articles/AEA2004.htm. Al Qaeda, of course, has utilized maritime tactics in the past, as in the bombing of the U.S. Navy destroyer *Cole* in the port of Aden, Yemen.

provide.³⁷ Researchers have identified a phenomenon of “agenda shifting.” Organizations that may originally have a political objective shift their activities towards wealth accumulation in the illegal economy, such as smuggling; obtaining and selling drugs and guns; fund raising through sympathetic governments, charities, wealthy individuals, etc.; and the ownership of legitimate businesses.³⁸ In doing so, they become entrenched, essentially moving into gaps created by political, economic, and social weaknesses. The initial rationale for moving into illegal activities is usually to raise funds for the continuation of a group’s political work. Both the Taliban and Al Qaeda, for example, despite strong prohibitions against the drug trade in Islam, have used the growing and trading of opium as an important revenue source.³⁹ There are numerous examples in the research literature of criminal gangs, rebel groups, and terrorist organizations that fit under the broad rubric of agenda shifting—that is, starting out with one set of objectives that defines an organization and is used to solicit membership, but then shifting over time to take on another set of objectives as members, and the group as a whole, follow incentives. The common threads appear to be low opportunity costs, state failures and the availability of exploitable but illegal resources. Some researchers argue that wealth accumulation becomes the dominant goal, and that political activity becomes a justification, not an objective. Others see wealth accumulation and the attendant set of

³⁷ Criminal gangs are discussed in Steven D. Levitt and Sudhir Alladi Venkatesh, “An Economic Analysis of a Drug-Selling Gang’s Finances,” *Quarterly Journal of Economics* 115:3 (August 2000): 755-89; and Sudhir Alladi Venkatesh and Steven D. Levitt, “‘Are We a Family or a Business?’ History and Disjuncture in the Urban American Street Gang,” *Theory and Society* 29:4 (August 2000): 427-62, www.sociology.columbia.edu/people/professors/sv185/miscellaneous/family_or_business.html. Paul Collier, et al, *Breaking the Conflict Trap: Civil War and Development Policy* (Washington, D.C.: World Bank, 2003); Paul Collier and Anke Hoeffler, “On Economic Causes of Civil War,” *Oxford Economic Papers* 50 (1998): 563-73; and David Keen, *The Economic Function of Violence in Civil Wars*, Adelphi Paper No. 320, Oxford, Oxford University Press/International Institute of Strategic Studies, 1998, analyze rebel groups. A series of research studies that emphasize the multiplicity of agendas in civil wars is in Karen Ballentine and Jake Sherman, eds., *The Political Economy of Armed Conflict: Beyond Greed and Grievance* (Boulder, CO: Lynn Rienner Publishers, 2003). Jessica Stern, *Terror in the Name of God: Why Religious Militants Kill* (New York: HarperCollins, 2003), 213-17, reports on interviews with *jihadists* who are disillusioned by the importance of economic agendas.

³⁸ See R. E. Bell, “The Confiscation, Forfeiture and Disruption of Terrorist Finances,” *Journal of Money Laundering Control* 7:2 (Autumn 2003), especially 106-7.

³⁹ Douglas Farah, “Al Qaeda Gold Moved to Sudan,” *Washington Post*, September 3, 2002; Owais Tohid, “Bumper Year for Afghan Poppies,” *Christian Science Monitor*, July 24, 2003; Bronwyn Curran, “Afghan Opium Trade Widens, Taliban and al-Qaeda Linked to Drugs Money,” *Agence-France-Presse*, October 30, 2003.

economic incentives as simply one among a number of objectives, with their relative importance varying in different situations.⁴⁰

Third, some terrorist organizations establish and maintain their standing in host communities because they are successful in providing public goods, including security, in effect filling in gaps generated by the failures of other institutions, including markets and governments.⁴¹ Some terrorist groups are successful because they provide services to the population within which they reside. Hamas, for example, has become a successful social service agency, and the Taliban first achieved prominence by offering effective security on trade routes between Afghanistan and Pakistan after the withdrawal of the Soviet Union, while Pakistan-based Jihadi groups have organized entire communities. These terrorist groups become providers of local public goods, in effect filling in gaps left by the failure of governments and international organizations. Private groups that supply public goods, known as “club” goods, create mechanisms that allow them to control access to the goods and services being supplied. The need to control access explains the elaborate selection processes and the resort to violence on the part of terrorist groups who provide such goods, even when this behavior does not appear to bring them close to their stated objectives. They are, instead, devices that serve to bind members to the group and make it difficult for members to leave, thereby providing a solution to the “free rider” problem inherent in all public goods production. When governments supply public goods, their activities are financed via taxation. Private suppliers of public goods raise funds externally via charities; appeals to diaspora populations in Europe, North America, and other countries; or from various governments, using their political work as a justification. Saudi Arabia, for example, is thought to be a significant source of funds for Jihadi groups, while the IRA conducts considerable fund raising in the United States.

These considerations suggest several lines of thinking regarding counter terrorism policies. The first is that policies that rely heavily on military options are likely not to be

⁴⁰ See the cases in Ballentine and Sherman, *Political Economy of Armed Conflict*.

⁴¹ Eli Berman, “Hamas, Taliban and the Jewish Underground: An Economist’s View of Radical Religious Militias,” National Bureau of Economic Research Working Paper No. w10004, September 2003, 3, www.nber.org/papers/w10004

cost effective. They tend to draw resources from other activities in large amounts, and they are frequently ineffective against asymmetric threats.

Second, resources devoted to traditional crime-fighting measures should be expanded and improved, especially in areas of disrupting terrorist finance. Indeed, training and deploying more forensic accountants is likely to be more effective than deploying more heavily armed military forces.⁴² There has been some success in closing charities that are largely front organizations for terrorist fund-raising, and in seizing financial assets held by terrorist organizations. However, one side effect is that innocent people are also hurt. Some charities, for example, do provide financial support and social services for poor citizens, even as they simultaneously aid terrorist groups. One example is the Benevolence International Foundation (BIF), whose assets were frozen by the U. S. Treasury Department a year after 9/11 and whose head, an Al Qaeda operative, was convicted of money laundering. The BIF collected funds from donors, many of them Moslems performing their religious obligations. The funds would be allocated to specific projects, with approximately 10% skimmed off and handed directly, in cash, to Al Qaeda representatives.⁴³ Freezing assets and effectively closing the foundation cut off both the 10% that went to Al Qaeda and the 90% that funded charitable activities.

At the same time, improving security in conflict-prone regions is a necessary precondition for other needed social, political and economic changes. Here, the experience suggests that emphasis on indigenous security forces is far more effective than an occupying security force.⁴⁴

Third, development assistance, both financial and technical, in the form, for example, of improved governance and aid aimed at basic sources of growth, can support political alternatives to violence. For example, aid aimed at replacing funds lost when terrorist-linked charities are closed, can be a means of opening such alternatives. The

⁴² Jonathan M. Winer and Trifin J. Roule, "Fighting Terrorist Finance," *Survival* 44:3 (Autumn 2003): 87-104; Loren Yager, "Combating Terrorism: Federal Agencies Face Continuing Challenges in Addressing Terrorist Financing and Money Laundering," United States General Accounting Office, Testimony Before the Caucus on International Narcotics Control, U.S. Senate, GAO-04-501T, March 4, 2004, www.gao.gov/cgi-bin/getrpt?GAO-04-501T.

⁴³ Mark Basile, "Going to the Source: Why Al Qaeda's Financial Network is Likely to Withstand the Current War on Terrorist Financing," *Studies in Conflict and Terrorism*, 27 (2004), p. 173.

⁴⁴ For a thorough analysis of the issues in security sector reform in a society prone to violence, see Mark Sedra, ed., *Confronting Afghanistan's Security Dilemma: Reforming the Security Sector*, Brief 28, Bonn International Center for Conversion, September 2003, www.bicc.de/publications/briefs/briefs.html.

Bush Administration has included the problem of development failures and “failed states” as a source of political instability and terrorism in formulating its public statements on U.S. national security objectives. In announcing new initiatives regarding foreign aid, the president explicitly referred to terrorism:

Poverty doesn't cause terrorism.... Yet persistent poverty and oppression can lead to hopelessness and despair. And when governments fail to meet the most basic needs of their people, these failed states can become havens for terror.... Development provides the resources to build hope and prosperity, and security.⁴⁵

There is some evidence of success on the part of aid projects in reducing the incentives for people to join terrorist organizations. However, when aid projects are inadequately funded or administered, or are abruptly terminated, they can generate a backlash, inflating expectations without delivering results and reinforcing nascent support for terrorist activities.⁴⁶

The Bush Administration's aid initiatives, labeled the Millennium Challenge Account, establish a wide-ranging set of criteria to determine country eligibility. One problem with these eligibility criteria is that the countries most in need of support, due to poor development experience and weak governance, are those least likely to meet the eligibility criteria, a classic “catch-22.”⁴⁷

Conclusion

Terrorism imposes substantial economic costs, but there are also significant costs associated with policies to combat terrorism. A society is better off if the threat of terrorism can be reduced, or even eliminated, just as it is better off if the threat of crime can be reduced or eliminated. There are some economic roots of terrorism, but these

⁴⁵ President George W. Bush, “President Proposes \$5 Billion Plan to Help Developing Nations,” Remarks by the President on Global Development, Inter-American Development Bank, March 14, 2002, www.whitehouse.gov/news/releases/2002/03/print/20020314-7.html.

⁴⁶ Kim Cragin and Peter Chalk, *Terrorism and Development: Using Social and Economic Development to Inhibit a Resurgence of Terrorism* (Santa Monica, CA: RAND, 2003).

⁴⁷ See, e.g., Steven Radelet, “Will the Millennium Challenge Account Be Different?” *The Washington Quarterly* 26:2 (Spring 2003): 171-87; and Lael Brainard, “U.S. Foreign Assistance After September 11: Major Changes, Competing Purposes and Different Standards – Is There an Overall Strategy?” Testimony, Committee on International Relations, U.S. House of Representatives, February 26, 2004, www.house.gov/international_relations/108/brai022604.htm.

have more to do with the incentives and constraints that individuals and organizations face than with any specific set of easily quantifiable factors that push people toward involvement in terrorist organizations. This suggests that policy responses to terrorism need to be multi-faceted and flexible. Security policies, for example, need to be more cost effective, in order to both achieve results and to limit the negative economic consequences of devoting excessive resources to security purposes. Similarly, aid policies need to concentrate on achievable objectives, both to obtain positive results and to provide a more representative and optimistic outlook on the future. Policies need to be targeted at filling in the voids left by weak states and shifting incentive structures within societies away from the use of violence. But such policies can never be complete, just as policies to fight crime can never reduce crime to zero. There are too many potential sources of violence to expect policy to deal with them all, and incentive-based policies can never force everyone to disregard the ideological or psychological tendencies that lead them to resort to violence.