# Management of the extreme events: countering international terrorism 

$\sim$ Ph. D Cristian Barna (University of Bucharest)
$\sim$ Ph. D Student Ionuț Constantin (University of Bucharest)


#### Abstract

After the terrorism attacks of September 11, 2001, there is recognition by both the public and private sectors that one needs to rethink our strategy for dealing with these low probability but extreme consequence events. September 11, 2001 attacks against the United States raised numerous questions related to counter-terrorism, foreign policy, as well as national security in the United States and abroad. They also raised the fundamental question of who should pay for losses due to terrorism.

The question of who should pay for terrorism risk prevention and sustainable coverage within a country is likely to be seen first as a matter of collective responsibility that each country has to consider - a societal choice.


Key words: terrorism, extreme events, strategic planning, multilateral approach, cooperation

## Defining terrorism as an "extreme value event"

Some challenges are evolving in more dangerous global configurations such as transnational organized crime and terrorism. Illicit and violent organizations are gaining increasing control over territory, markets,
and populations around the world. Nonstate armed groups complicate peacemaking efforts due to their continued access to global commodity and arms markets. Many countries, even if they are not directly affected, can suffer from the economic impact of a major terrorist attack. States with ineffective and corrupted institutions may prove to be weak
links in global arrangements to deal with threats like transnational terrorism ${ }^{1}$.

Understanding society's response and its reaction to the threat of terrorism, involves the evaluation of the risk itself. You should note that terrorism is a form of extreme risk, defined by that fact that it is rare in its occurrence but extreme in its magnitude, whether measured in casualties or in financial or economic loss.

In this respect, terrorism risk can be a viewed as an "extreme value event" that can be measured. This would be a first step towards rationalizing the use of scare resources to rare but catastrophic events such as terrorism.

There are several reasons why terrorism maybe viewed as a catastrophic event. First of all, you can view terrorism the way you would think about a crime; to the terrorist, the act is premeditated and deterministic - the terrorist knows when he wants to hit, what he wants to hit, by what means and so on. But to the victim there is an asymmetry of information about what, if anything at all, is going to happen, and where, when and how it is going to happen. Therefore, there is a certain "disconnect" between the deterministic aspects of terrorist behavior at the micro level, on the other hand, and the broad macro effects of terrorism on the other hand. ${ }^{2}$
${ }^{1}$ Rosand, Eric: Global Terrorism: Multilateral Responses to an Extraordinary Threat, Coping with Crisis Working Paper Series, April 2007, International Peace Academy, www.ipacademy.org
${ }^{2}$ Mohtadi, Hamid: Assessing the Risk of Terrorism Using Extreme Value Statistics, Proceedings of the Institute of Food Technologists' First Annual Food Protection and Defense Conference, Atlanta, Georgia, November 3-4, 2005

After the terrorism attacks of September 11,2001 , there is recognition by both the public and private sectors that one needs to rethink our strategy for dealing with these low probability but extreme consequence events. While protecting residential and commercial construction and critical infrastructure services (transportation, telecommunications, electricity and water distribution, etc.) in risky areas may limit the occurrence and/or the impacts of major catastrophes, we know that major disasters will still occur. In these situations one must provide adequate emergency measures and rapidly restore critical services. ${ }^{3}$ September 11, 2001 attacks against the United States raised numerous questions related to counter-terrorism, foreign policy, as well as national security in the United States and abroad. They also raised the fundamental question of who should pay for losses due to terrorism.

The event revealed highly correlated risks at two different levels. First, multiple lines were affected instantaneously on 9/11 such that commercial property, business interruption, workers' compensation, life, health, disability, aircraft hull and general liability lines each suffered catastrophic losses. Secondly, there is now a well recognized possibility for several catastrophic attacks to occur simultaneously in different densely populated and industrialized locations. Terrorism is now recognized as an international issue because it has a potentially de

[^0]bilitating impact on the social and economic activities of a country. ${ }^{4}$

## Dealing the threat: counterterrorism strategic planning approach

Although terrorism as a phenomenon is not new, with the upsurge in terrorist attacks around the world claimed by or ascribed to Islamist terrorist groups there is now recognition, even among the most economically and militarily powerful of countries, that this particular threat cannot be fought by a single state or even a group of states. ${ }^{5}$

As a result, even as countries increasingly understand the indirect economic impacts of terrorist attacks and terrorist exploitation of weaknesses in governance or financial infrastructure, very different perceptions of the threat posed by terrorism have emerged. This has complicated efforts to develop coherent international responses to the extraordinary threat posed by terrorism.

Terrorism, as a foreign policy issue and a matter of national security, presents a set of characteristics that differ from other catastrophic risks like natural disasters in the following ways: limited relevant data, difficulty to quantify probability, dynamic uncertainty depending over time on the terrorists' will to attack and their chosen modes, among others.

[^1]This raises the question of government responsibility in dealing with terrorism and call for government participation in any national programme covering economic losses due to terrorist attacks.

Government protection against catastrophic losses associated with terrorism is particularly important, the government having the capacity to provide this type of coverage, as it can diversify the risks over the entire population and spread past losses to future generations of taxpayers.

At the national level, non-military counterterrorism measures now generally fall into three broad areas. The first involves law enforcement efforts aimed at "chasing and investigating terrorists and their networks across borders" and extraditing or prosecuting those that are arrested. ${ }^{6}$

This requires not only properly trained and equipped law enforcement and intelligence officials and exchanges and intensified cooperation with intelligence and security services worldwide, mostly through bilateral channels, but adequate legislation and an effective (and uncorrupted) judicial system.

A second involves protecting the homeland, including measures such as enhancing border and transportation security and safeguarding critical infrastructure, including nuclear, chemical and petro plants, and gas pipelines that could be terrorist targets.

Measures taken to minimize the economic impact of terrorism

An approach to analyze the effects of measures taken to minimize the economic

[^2]impact of terrorism starts with the application of the security chain, which provides the distinction of five different phases to minimize the economic consequences. The effectiveness of the measures within these phases depends on the cost scheme and the aligned distinction between direct (real) and indirect (perceived) costs of terrorism.

First, real costs will manifest in the direct aftermath of an attack (short-run costs) particularly. Measures available to minimize these costs mainly consist of financial assistance through monetary policy for the overall macroeconomic economy and of fiscal policy focused on easing the burden (of the impact) for certain sectors of the economy. Second, perceived costs appear either in advance of a potential attack (proactive, preventive, preparative) or in the aftermath of it (short term, long term).

Actions to minimize these costs need to include other options than just the financial ones. They need to aim at balancing the perception of a terrorist threat with the perception of the sufficiency of security measures and the general ability of authorities to protect vulnerable spots. ${ }^{7}$

The conceptualization and the calculation of economic costs of terrorism differ widely. Nevertheless, common ground exists that the criteria of economic costs comprise four major dimensions. ${ }^{8}$

[^3]Those dimensions distinguish costs by their nature, impact, time period, and geographical range of impact. Another dimension that is sometimes added is the differentiation in targets of attacks. Macro- and micro-economic cost effects need to be considered both in the short and long run and a differentiation between direct and indirect are taken into account. Additionally, both can include domestic as well as transnational effects. ${ }^{9}$ With regard to the distinction between short-term and long-term costs, the former are direct and indirect costs emerging in the direct aftermath of a terrorist assault. The latter may include higher operating costs, for example as a result of extensive security precautions, higher risk and insurance premiums and a shift of resources away from the civilian labor force towards the military.

The magnitude of long-term economic consequences depends on the developments of terrorist threat perceptions and the response options taken. The wars in Afghanistan and Iraq and the costs thereof arguably are long-term consequences of the 9/11 attacks, which should be taken into account. ${ }^{10}$

This makes clear that both long-term and short-term costs are hard to predict. They largely depend on the unpredictable scale of the (looming) attack, as well as the vulnerability of the affected sector and/or geographical area and on the effectiveness of the response.
${ }^{9}$ Jackson, B; Dixon, L; Greenfield, V.A: Economically Targeted Terrorism, A Review of the Literature and a Framework for Considering Defensive Approaches, RAND Corporation, 2007
${ }^{10}$ Stiglitz, Joseph: The Economic Consequences of Mr. Bush, Vanity Fair, December 2007

Similar problems arise with the distinction that refers to the nature of impact, basically the direct and indirect costs caused by terrorism. In general, direct costs are seen as costs that occur as the direct result of the destruction of physical assets. They include property, goods and/or infrastructures losses, and the value of lives lost, et cetera. Direct economic costs are likely to be proportionate to the intensity of the attacks, and the size and the characteristics of the economy hit. ${ }^{11}$

In contrast, indirect costs comprise those costs relating to the implementation of security and preparatory measures in response to the terrorist attacks. They also include 'costs tied to attack-induced long-run changes in commerce'

Additionally, indirect costs are the result of behavioral change, which derives from a deterioration of consumer and investor confidence, resulting in reductions in demands and shifts in investment behavior. Consequently, indirect costs may surface as reduced growth in GDP, lost foreign direct investment, changes in inflation and increased unemployment. ${ }^{12}$

## Disrupting al Qaeda's terror network after 9/11: case study

United States defined the strategic goal in terms of the threat posed by al Qaeda and other Salafi jihadist groups based on their overt targeting of the United States in

[^4]in rhetoric and in practice, their broad geopolitical aims, and their material capabilities. The strategic goal was defined narrowly. It did not call for the elimination of these groups or all terrorist violence. The strategic goal focused on preventing attacks from occurring within the United States itself. The United States has worldwide interests that have been in the past, and could be again in the future, al Qaeda targets. However, preventing all jihadist terrorist attacks against U.S. interests is not realistic. U.S. efforts to prevent attacks within the United States may, nevertheless, have the ancillary benefit of degrading terrorists' ability to attack overseas U.S. interests. In the following bullets, we briefly define what "means" was identified in order to achieve the strategic goal: strengthen the indigenous counterterrorism efforts of friendly nations, provide operational military assistance to friendly nations in support of their counterterrorism operations, exploit the network technologies used by terrorists, prevent access to specific conventional weapons, deny safe havens to terrorist groups, reduce state support for terrorist groups, disrupt financial support for terrorist groups, encourage defections and facilitate exits from terrorist groups. Counterterrorism strategies had been defined, right after 9/11, when the Bush administration gave priority to capturing and killing al Qaeda leaders in Afghanistan and ending the support they received from the Taliban government. It was only after the military operations ended in Afghanistan that counterterrorism means proliferated and priorities disappeared. ${ }^{13}$

[^5]Unfortunately, as it had been seen at Tora Bora, on December 2001, the region of the Pakistan-Afghanistan border exhibits an almost complete lack of state penetration, with lax or nonexistent controls, the absence of a government monopoly on the use of force, and resistance to state authority by local tribes. In terms of conduciveness to terrorist presence, this region is home to a multitude of extremist religious, ethnic, and criminal entities and has a population that maintains values and norms that promote hospitality toward such groups. This region is also where the core al Qaeda leadership is believed to have taken refuge.

Also, al Qaeda seek to relocate to other ungoverned areas as Pakistan become inhospitable. Countries with ungoverned territories that are currently less conducive to terrorist presence, but where jihadists might seek a safe haven in the future are Nigeria, Mali, Somalia, and Yemen. ${ }^{14}$

Yet for those states whose interests are targeted wherever they are found, the general reluctance of African - and other developing - states to prioritize Islamist terrorism is itself problematic, because it offers breathing space to Islamist terrorist groups. Africa also provides an example of why many developed states suggest that weak state capacity is itself problematic from a counter-terror perspective: Africa is attractive to Islamist terrorists, they argue, because it offers space within disenfranchised countries, whose populations are frustrated and ripe for recruitment. Additionally, there are a number of sources of militant Islamic radicalism on the continent as well as opportunities

[^6]for fundraising through exploitation of natural resources such as oil and diamonds. ${ }^{15}$

## Concluding remarks

Recent changes in the nature of international terrorism worldwide indicate that these issues will remain in our future. They also provide evidence that no country can be viewed today as immune to international terrorism as the world is becoming more and more global, increasing interdependencies across borders. Moreover, it is likely that terrorism will take on various forms in the future that would go beyond our current interpretation of terrorists' rationality.

In that context, the question of who should pay for terrorism risk prevention and sustainable coverage within a country is likely to be seen first as a matter of collective responsibility that each country has to consider - a societal choice. National components, such as characteristics of the insurance market and the national homeland security policy, as well as habits, cultures and references, play a prime role in the implementation and improvement of any national programme. On the other hand, decision makers in both the private and the public sectors now face global threats that go far beyond national frontiers. Given the complexity and evolving nature of the threat, as well as the diversity of conditions conducive to the spread of terrorism, combating international terrorism requires a comprehensive, multifaceted response at the global, regional, and local levels.

[^7]Although national governments will remain the first responders to international terrorism, since they bear the primary responsibility of protecting their citizens, formal multilateral bodies, informal multilateral arrangements, and programs at the international and regional levels can, if structured properly, make a substantial contribution as well. Successes in the campaign against terrorism have, to a large degree, been a result of cooperation and mutual support among governments around the world. ${ }^{16}$

Acknowledgements: This work was supported by the PNII Partnership grant nr. 82094/2008 "Sisteme de management integrat pentru protectia economico-financiara a infrastructurii critice si a personalului impotriva terorismului de orice natura"
${ }^{16}$ Pope, William: European Cooperation with the United States in the Global War on Terrorism, remarks to the House International Relations Committee, Subcommittee on Europe and on International Terrorism, Nonproliferation and Human Rights, Washington, September 14, 2004

## REFERENCES:

1. Andrew Mack: Global Political Violence: Explaining the Post-Cold War Decline, Coping with Crisis Working Paper Series, International Peace Academy, New York, March 2007
2. Coolsaet, Rik: Jihadi Terrorism: Where Do We Stand? Second IRRI Conference on International Terrorism, February 13, 2006, www.irri-kiib.be
3. Davis, Lynn E; Sisson, Melanie W: A Strategic Planning Approach. Defining Alternative Counterterrorism Strategies as an Illustration, RAND Corporation, 2009
4. Erwann, Michel-Kerjan; Burkhard, Pedell: Terrorism Risk Coverage in the Post-9/11 Era: A Comparison of New Public-Private Partnerships in France, Germany and the United States, The Geneva Papers on Risk and Insurance-Issues and Practice, 2005
5. Jackson, B; Dixon, L; Greenfield, V.A: Economically Targeted Terrorism, A Review of the Literature and a Framework for Considering Defensive Approaches, RAND Corporation,2007
6. Johnston, R.B., Nedelescu, O.M: The Impact of Terrorism in Financial Markets, IMF Working Paper, Monetary and Fiscal Systems Department, 2005
7. Kunreuther, Howard; Michel-Kerjan, Erwann: Risk Transfer And Insurance: Insurability Concepts And Programs For Covering Extreme Events, Wiley Handbook of Science and Technology for Homeland Security, Edited by John G. Voeller, 2008
8. Looney, R: Economic Costs to the United States Stemming From the 9/11 Attacks, Strategic Insights, vol. 1, no. 6, 2002
9. Lyman, Princeton N; Morrison, Stephen: The Terrorist Threat in Africa, Foreign Affairs 83, no. 1, Jan/Feb 2004
10. Mohtadi, Hamid: Assessing the Risk of Terrorism Using Extreme Value Statistics, Proceedings of the Institute of Food Technologists' First Annual Food Protection and Defense Conference, Atlanta, Georgia, November 3-4, 2005
11. Pope, William: European Cooperation with the United States in the Global War on Terrorism, remarks to the House International Relations Committee, Subcommittee on Europe and on International Terrorism, Nonproliferation and Human Rights, Washington, September 14, 2004
12. Rosand, Eric: Global Terrorism: Multilateral Responses to an Extraordinary Threat, Coping with Crisis Working Paper Series, April 2007, International Peace Academy, www.ipacademy.org
13. Sandler, T, Enders, W: An Economic Perspective on transnational terrorism, European Journal of Political Economy, vol. 20, 2004
14. Shillinger, Kurt: Global Terror: Africa not Immune to Terror, Business Day, October 7, 2005
15. Stiglitz, Joseph: The Economic Consequences of Mr. Bush, Vanity Fair, December 2007
16. *** The negative economic impact of terrorism and means of consequence minimization, Transnational Terrorism, Security and the Rule of Law, 3 September 2008, www.transnationalterrorism.eu

[^0]:    ${ }^{3}$ Kunreuther, Howard; Michel-Kerjan, Erwann: Risk Transfer And Insurance: Insurability Concepts And Programs For Covering Extreme Events, Wiley Handbook of Science and Technology for Homeland Security, Edited by John G. Voeller, 2008

[^1]:    ${ }^{4}$ Erwann, Michel-Kerjan; Burkhard, Pedell: Terrorism Risk Coverage in the Post-9/11 Era: A Comparison of New Public-Private Partnerships in France, Germany and the United States, The Geneva Papers on Risk and Insurance-Issues and Practice, 2005
    ${ }^{5}$ Andrew Mack: Global Political Violence: Explaining the Post-Cold War Decline, Coping with Crisis Working Paper Series, International Peace Academy, New York, March 2007

[^2]:    ${ }^{6}$ Coolsaet, Rik: Jihadi Terrorism: Where Do We Stand? Second IRRI Conference on International Terrorism, February 13, 2006, www.irri-kiib.be

[^3]:    ${ }^{7 * * *}$ The negative economic impact of terrorism and means of consequence minimization, Transnational Terrorism, Security and the Rule of Law, 3 September 2008, www.transnationalterrorism. eu
    ${ }^{8}$ Looney, R: Economic Costs to the United States Stemming From the 9/11 Attacks, Strategic Insights, vol. 1, no. 6, 2002

[^4]:    ${ }^{11}$ Johnston, R.B., Nedelescu, O.M: The Impact of Terrorism in Financial Markets, IMF Working Paper, Monetary and Fiscal Systems Department, 2005
    ${ }^{12}$ Sandler, T, Enders, W: An Economic Perspective on transnational terrorism, European Journal of Political Economy, vol. 20, 2004

[^5]:    ${ }^{13}$ Davis, Lynn E; Sisson, Melanie W: A Strategic Planning Approach. Defining Alternative Counterterrorism Strategies as an Illustration, RAND Corporation, 2009

[^6]:    ${ }^{14}$ Shillinger, Kurt: Global Terror: Africa not Immune to Terror, Business Day, October 7, 2005

[^7]:    ${ }^{15}$ Lyman, Princeton N ; Morrison, Stephen: The Terrorist Threat in Africa, Foreign Affairs 83, no. 1, Jan/Feb 2004

