The Financial Risks of Terrorism: Balancing Public and Private Roles

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Who should pay for the economic consequences of a terrorist attack in the United States?

This week, the Wharton Risk Management and Decision Processes Center publishes *TRIA and Beyond,* an analysis of the Terrorism Risk Insurance Act of 2002 (TRIA), which will expire December 31, 2005, if not renewed. The Risk Center's report offers policymakers, key industry representatives and other interested parties an analysis of what roles the public and private sectors should play with respect to terrorism risk coverage in the United States. The report was produced by a nine-person team, led by Howard Kunreuther, co-director of the Center, and Erwann Michel-Kerjan, a senior research fellow at the Center. The other authors include Neil Doherty, Wharton professor of insurance and risk management; Paul Kleindorfer, Wharton professor of operations and information management; Mark V. Pauly, Wharton professor of health care systems and business and public policy; Scott Harrington, Wharton professor of health care systems; Center research associate Esther Goldsmith, and senior fellows Irv Rosenthal and Peter Schmeidler.

TRIA's primary goals, according to language in the act itself, are to protect consumers by maintaining "widespread availability and affordability of property and casualty insurance for terrorism risk" and to allow a transitional period during which private markets can adjust to the new risk environment. Before TRIA expires, the U.S. Congress must decide what, if anything, should replace it.

As the insurance industry, government and modelers try to manage the risks of terrorism, they face a number of challenges -- including continuing terrorist attacks abroad (most recently, the July 7 bombings in London), fear of reprisals for the U.S. invasion of Iraq, and an underlying insecurity that may now be a permanent feature of the national psyche.

A Post-9/11 World

"The *TRIA and Beyond* study is part of the mission of the Wharton Risk Center to understand individual and organizational behavior with respect to low probability, high consequence events and then suggest strategies for managing these risks," says Kunreuther. Terrorism insurance was the main focus of the Center's annual meeting in February, which drew approximately 60 participants representing 25 organizations from the federal government and industry to academia and research institutions.

The underpinning of the report released this week, according to Michel-Kerjan, rests on the idea that if homeland security is indeed seen as one of the top priorities of the national agenda, "then how to provide financial protection against terrorist attacks should be on this national agenda as well.... Quite surprisingly, before this Wharton study, no concerted effort had been made in the U.S. since the passage of TRIA to address that question by bringing together interested parties across a broad spectrum." And yet, Michel-Kerjan adds, there is evidence that the U.S. and its allies "remain the prime target of several terrorist groups which aim to inflict mass-casualties and economic disruption."

Insurers are now required by the Terrorism Risk Insurance Act to offer coverage against foreign, but not domestic, terrorism. The federal government has agreed to underwrite most of the risk for the three-year life of the Act as a substitute for the reinsurance industry, which largely withdrew from coverage after suffering about three-quarters of the $40 billion losses stemming from the September 11 attacks.

The official position of the U.S. Treasury -- which released a report on TRIA this June -- and the Congressional Budget Office (CBO) has been that private markets should be able to adjust to the new environment and that TRIA was meant to provide a "transitional period" in which those changes were to take place -- i.e., that the insurance industry would by now have found ways to offer coverage to its clients and cover its own risks at reasonable rates.

However, the *TRIA and Beyond* report suggests that the necessary changes and adjustments have not yet been made and that there is a need for some type of long-term private-public partnership for providing terrorism insurance. Indeed, one of the key recommendations of the Wharton Risk Center report is a call for the establishment by the U.S. Congress of a national commission on terrorism risk coverage, which should be given time to comprehensively assess the issues involved before permanent legislation is enacted.

Kunreuther points to a number of factors which currently prevent the private market from working efficiently to assess and to price this kind of risk, and which make terrorism a particularly vexing problem for markets. "A key point is that terrorism is different from low probability events such as natural disasters. It's not that you can precisely estimate the risk of an earthquake or a hurricane. But you do have scientific data; you do have a lot of information; there are quantitative models that have been built."

Insurers, he adds, "are more comfortable determining a premium for coverage of these events. With terrorism, it is extraordinarily difficult to estimate the likelihood and location of the next attack. Terrorists can take action in reaction to what others have done. If protective measures are in place on some buildings or modes of transportation, then other courses of action will be planned. Witness the recent London attacks in July on the transit system. Probability does not play a role in the determination of premiums for terrorism coverage by insurers."

Another key factor in the inability of the market to manage the risk of terrorism is the impact of state mandated coverage. As the report notes: "The mandatory coverage of terrorism losses in workers' compensation policies in all states and mandatory coverage in approximately one-third of the states of any losses from fires that occur following a terrorist attack, whether or not the firm has purchased terrorism insurance, opens up insurers to the possibility of large losses that could lead to some insolvencies."

As Kunreuther notes: "You don't really have a free market today. You don't have the ability to say, 'I will write this coverage or I won't write this coverage.' Some coverage, you are forced to write."

Domestic vs. Foreign Terrorism

The current law contains quirks that *TRIA and Beyond* suggests need to be addressed. Paramount among them is a distinction between "domestic" and "foreign" terrorism. The former is currently not covered under TRIA. What do these distinctions mean in the current environment, Kunreuther asks? How would one categorize the recent bombings in London, for example? The first wave, on July 7, was carried out by a group of British-born men, whose parents were immigrants and who may or may not have had foreign support, though they were clearly motivated by foreign events. If the bombings had been carried out in New York or Chicago or Houston, would TRIA have applied? There is no clear answer to this question.

If TRIA were renewed for a limited period of time, the report's authors recommend a comprehensive series of strategies to be studied with an eye toward creating long-term solutions to the problem of terrorism insurance. Some of these solutions can be implemented by the private sector; others will require either governmental action or support. The options cited include:

Deploying the capital of potential target firms. "We would envision," the authors write, "that a large part of terrorism risk is, and will continue to be, absorbed by the firm's own capital, so that it is, in fact, self insured. Moreover, in the case of commercial property, institutions providing long-term debt financing to property developers could possibly underwrite potential losses from terrorism and charge higher interest rates to reflect the additional risk. In effect this would spread part of the risk across all of their shareholders."

- Reducing insurers' and reinsurers' tax costs of holding capital, with the caveat that such a program should be designed to avoid "significant tax deferrals unrelated to the program's objectives of expanding the capacity to insure losses from terrorism (and possibly other extreme events)."

Deploying capital of reinsurers. "One possibility would be a TRIA-like program without individual insurer deductibles that would only provide payments from the government once losses exceeded a large aggregate threshold. This approach would stimulate the demand for reinsurance and avoid some of the distortions associated with individual insurer deductibles and inclusion of captives in the program," the report states. "Another possibility would be to base any federal reimbursement of terrorism losses on net (i.e., after reinsurance) losses without requiring that reinsurers make available terrorism coverage."

Facilitating the use of terrorism catastrophe bonds. The report recommends a study "to determine what are the institutional and regulatory obstacles to the development of a more robust market for terrorist cat bonds and what steps could be taken to modify the current situation."

Mutual insurance pools, which the authors note "have been developed in several European countries before and after 9/11 in combination with a government backstop."

Publicly administered mutual insurance. "The plan might be designed," the report suggests, "so that each insurer would choose a level of protection through the mutual pool and pay an estimated premium. If either no loss or minor losses occurred, any excess premiums above a predefined threshold would be returned to insurers in proportion to their original purchases. In the event of large losses that exceed the plan's accumulated resources, policyholders would be assessed an additional amount to cover claims according to the terms of the arrangement."

Federal reinsurance with explicit premiums. "An alternative to a TRIA-like arrangement, where there is no upfront charge to insurers for the federal backstop, would be a federal reinsurance program with explicit premium charges levied [in advance of a disaster's occurrence]

by the government."

"As the threat of terrorism is likely to be with us for a long time to come," Michel-Kerjan notes, "there is a need to undertake a concerted national effort. The Wharton Risk Center team has benefited from interactions with a large number of decision-makers, both corporate and public, in arriving at these suggested strategies; we hope the final report reflects this diversity."

The funding for the report came from 10 companies -- ACE INA, American Insurance Association, American International Group, American Re, Liberty Mutual, Lockheed Martin, Property Casualty Insurers Association of America (PCIAA), State Farm Fire and Casualty Company, Swiss Re, Wyndham Partners Consulting, Ltd. (an Affiliate of Renaissance Re Holdings, Ltd.) and Zurich North America -- and was provided before the study began. "We benefited from the funding and from discussions with the sponsors, but the Risk Center had complete control over the contents of the report and the conclusions we reached are entirely our own," says Kunreuther.

The insurance industry has already taken steps to utilize policy forms that would exclude terrorism coverage on January 1, 2006, should TRIA not be renewed. Congress will act on the future of terrorism insurance in the U.S. in the next weeks or months. Says Kunreuther: "I would hope that TRIA will be renewed with appropriate modifications but that over the next two years Congress will also authorize a study of the whole terrorism insurance program."