



## RISK AND SECURITY: INSURERS SEEK CONTINUED BACKSTOP TO ENSURE VIABLE TERRORISM PROGRAMS

### MOST WORRISOME FOR WORKERS COMP: CBRN ATTACKS

by Bill Thorness, AIC

THE RISK OF TERRORISM CONTINUES TO VEX INSURANCE EXECUTIVES FIVE YEARS AFTER SEPTEMBER 11, AND WITH A FEDERAL BACKSTOP THAT EXPIRES IN 2007, THE TOPIC WILL CERTAINLY REMAIN HIGH ON THE PROBLEM LIST. WHILE INSURERS HAVE BEEN MANDATED TO OFFER TERRORISM INSURANCE, PROGRAM WEAKNESSES COULD CAUSE ECONOMIC HAVOC AND SOME EXPERTS QUESTION WHETHER INSURANCE SHOULD BE THE AMERICAN ECONOMY'S PROTECTOR AGAINST TERRORISM.

In the last quarter of 2006, federal reports, industry groups, and think-tank research all contributed to the debate on terrorism insurance. As the election swung power to the Democrats, the industry prepared for a debate on the renewal of the Terrorism Risk Insurance Act (TRIA) and the next generation of a public/private partnership to underwrite what some say is the most difficult of perils.

"This is first and foremost a public risk," says Christopher Lewis, vice president of Alternative Market Solutions at Hartford Financial

Services Group in Hartford, CT. "Second, it is an uninsurable risk."

Writing in a new book on terrorism response, authors from the RAND Institute for Civil Justice question the appropriateness of the insurance role. "[T]he recent debate on terrorism compensation policy in the United States has focused almost exclusively on TRIA ..." say chapter authors Lloyd Dixon and Robert T. Reville in *Seeds of Disaster, Roots of Response*.

"Broader questions about whether insurance is the best mechanism for addressing terrorism risk have rarely been addressed."

### QUESTIONS OF POLICY

Insurers and their partners have a political hill to climb when discussing how to continue the federal backstop for terrorism that is currently addressed by TRIA. Both versions of TRIA include a graduated level of insurer retentions that imply a desire for federal scaling back as the free market devises products and programs that would handle the risk.

“The federal government wants to see an effort by the insurance industry to create a long-term solution for dealing with terrorism risk that, in fact, has the effect of scaling back federal participation over a period of years,” says Robert Blumber, a managing director in the property practice at Marsh, Inc. in New York.

“There’s a free-market ideology that drives a lot of this,” explains Dr. L. James Valverde, Jr., vice president of economics and risk management for the New York-based Insurance Information Institute (I.I.I.). “Most people in the industry are great believers in the free market and, wherever possible, are looking for ways to let the free market do what it does best.”

But in this case, the industry is asking, can it be done? Debates include such factors as whether reinsurance or capital-market funding would back expanded programs, and how to grapple with the growing risk of chemical, biological, radiological, and nuclear (CBRN) attacks. Government and industry leaders are pondering the effectiveness of computer modeling for terrorist acts, which experts have been refining for five years.

Some policy makers are eyeing terrorism insurance mechanisms around the world as potential models for the United States to adopt.

For workers compensation carriers, whose product includes a social mandate as well as a risk-rated compensation system, additional questions abound, such as how to get a handle on long-tail exposures of lifetime illnesses and massive payouts for loss of life, or what to do about great concentrations of risk in urban work centers. Other concerns include employers’ liability and the possibility of laws on policies and payouts being rewritten in the aftershock of a big loss.

### STUDYING THE PROBLEM

When the Terrorism Risk Insurance Act of 2002 was enacted, both government and industry were just beginning to get a handle on the economic aspects of terrorist acts. TRIA was given a three-year trial, 2003 to 2005. Six days before it was to expire, the law was renewed for two years as the Terrorism Risk Insurance Extension Act of 2005. Without further Congressional action, it will expire at the end of 2007. (This report references both versions of the law as TRIA.)

TRIA was credited by the industry as providing a mechanism under which coverage could be offered. The July 2006 “Marketwatch: Terrorism Insurance 2006” report by insurance services firm Marsh, Inc. showed that nearly 60% of the firms surveyed had purchased property terrorism coverage in 2005, a steady increase from earlier years; in 2003, 25% of such



**Christopher Lewis**  
Hartford Financial Services Group



**Robert Blumber**  
Marsh, Inc.



**Dr. L. James Valverde, Jr.**  
Insurance Information Institute

firms did so. The coverage was taken up more often by firms in the north-east United States, and by particular industries such as financial institutions, real estate firms, and healthcare facilities.

The Marsh report provided a glimpse of the peril’s scope for workers compensation insurers. Noting that states do not allow coverage for terrorism to be excluded, the report said that computer models have estimated the worst-case workers compensation cost of a terrorism incident to be \$90 billion, contrasted with an estimated total capacity of the workers compensation line at \$30 billion.

In September 2006, the Government Accountability Office (GAO) issued a report showing that the most devastating types of terrorist attacks—using CBRN weapons—are commonly excluded from coverage by property insurers. Such perils, the report said, “may not fully satisfy the principles of insurability.” Workers compensation insurers expressed to the GAO that, due to regulatory limitations and difficulties in pricing such coverage, premiums may not be adequate to cover their exposure.

Closely following the GAO report, the President’s Working Group on Financial Markets (PWG) issued an assessment of terrorism risk insurance that included two key assertions: first, that the presence of TRIA could be impeding further development of the private market for terrorism coverage, and second, that there was virtually no coverage, or expectation of a market developing, for CBRN terrorism events.

Regarding CBRN, the American Academy of Actuaries, earlier in 2006, had offered the results of a modeling study on terrorist attacks, both conventional and CBRN. Their report, shared with the PWG in its research, showed potential losses from a New York City CBRN attack that would far surpass the ability of the insurance industry to respond financially.

The studies and reports, being followed by much discussion among industry and public policy leaders, brought new focus on the debate over how the country might fund the financial effects of potentially devastating terrorist attacks.

#### AN UNINSURABLE RISK?

That debate has brought out a common opinion that there is a strong link between national security and terrorism coverage. Since the insurance industry is being asked to underwrite the risk, the reasoning goes, a well functioning insurance mechanism would enhance the economic resilience of the nation after a terrorist strike. That can only be provided, say insurance experts, by the government shouldering the ultimate high ends of the potential cost. The Rand authors write that the economic security implications make a strong case for continuing the public/private partnership to mitigate the risk from a terrorist attack.

“This is a war,” says Stephen Zielezienski, senior vice president and general counsel for the American Insurance Association (AIA) in Washington, DC, “and to my knowledge, the private insurance industry has never been asked to underwrite wars that are fought by the US government.”

Bruce Wood, AIA assistant general counsel, says that there is in fact a precedent in workers compensation law dating from World War I that bolsters the argument for ultimate public underwriting.

In 1941, Congress enacted two statutes guaranteeing workers compensation coverage for employees of federal contractors operating abroad. The Defense Base Act (DBA) requires all private contractors operating abroad to secure workers compensation insurance. Coverage is based on the Longshore and Harbor Workers’ Compensation Act, a federal workers

compensation program for maritime workers. Congress also enacted the War Hazards Act, which provides federal reimbursement to insurers for losses arising out of the DBA when those losses stem from hostile action. The DBA today covers the thousands of private contractors working in Afghanistan and Iraq, and the War Hazards Act reimburses those losses stemming from hostile action. “Thus, decades ago, Congress implicitly recognized that war risk is inherently uninsurable,” says Wood. “We’re saying that this war on terrorism is as much an uninsurable risk as was and is war between nation states.”

“To get the best glimpse of whether this is a privately insurable peril, one only needs to look at the reinsurance and capital markets,” says Hartford’s Lewis. “Reinsurance has largely withdrawn from the market, and capital markets have not provided any capacity.”

“You don’t have a lot of people standing in line to write it,” agrees Marsh, Inc.’s Blumber.

A much discussed assertion from the PWG report implied that the presence of TRIA was crowding out private market expansion. The report states that “[t]he presence of subsidized federal reinsurance through TRIA appears to negatively affect the emergence of private reinsurance capacity because it dilutes the demand for private sector reinsurance.” Some industry observers say that conclusion amounts to false logic.

“They haven’t taken into account that, under TRIA, insurers are mandated to make these coverages available,”

says actuary Michael McCarter, who chairs the American Academy of Actuaries' Terrorism Risk Insurance Subgroup. "Their conclusions imply that if you let TRIA expire, these things will continue. Well, I doubt it."

One indicator: reinsurers are not clamoring to take on the risk. As the PWG report came out, the industry had approximately \$30 billion of written terrorism coverage, but only \$6 to \$9 billion of available reinsurance capacity. "There's more demand for reinsurance than there is interest in supplying it," McCarter says.

In addition, some carriers and the industry as a whole currently have terrorism risk retentions higher than their payouts after September 11.

"Currently, under TRIA, [the industry's] retentions are in excess of what the 9/11 attacks would have been," says Lewis, "so we already have a lot of skin in the game."

#### A QUESTION OF SCALE

The idea that TRIA is stifling market expansion "has been a kind of nice economic exercise for some in the administration," says Martin DePoy, spokesman for the DC-based Coalition to Insure Against Terrorism, "yet we argue that we have real-life examples. We lived through this when we did not have the program, and nothing much has changed."

It's a question of scale of potential loss, and an equation that economists and actuaries have not been able to pencil out. In fact, they've done just the opposite. The entire property/

casualty industry's surplus is about \$427 billion, I.I.I.'s Valverde points out, and "It can't all just go to cover one or two big acts of terrorism." The TRIA line surplus is \$163.9 billion, according to Valverde.

While the insured losses from the World Trade Center are in the range of \$35 billion, much greater losses are projected for the worst attacks, those using CBRN weapons. The actuarial academy worked with Boston-based catastrophe modeling firm AIR Worldwide to calculate losses from different types of attacks in four cities. Using a deterministic model, they chose locations and types of attack. The results were sobering: while a six-ton truck bomb detonated in New York City could result in \$11.8 billion in insured losses, a medium CBRN terrorist attack could cost \$446 billion, and a large CBRN attack could result in losses of \$778 billion.

As destructive as such an attack could be to the industry, federal involvement is not sought solely to address capacity or insurability issues.

"It essentially boils down to security," says Valverde, "national security and economic security." For example, it is in the interest of national security to protect critical infrastructure, of which 85% exists in the private sector, he explains.

Valverde says a crippling blow to the Port of Houston would cause "serious long-term repercussions with spillover effects into multiple sectors," which Valverde says would make the airline



**Stephen Zielezienski**  
American Insurance Association



**Bruce Wood**  
American Insurance Association



**Paul Ramont**  
St. Paul/Travelers

industry problems after September 11 "pale in comparison."

In workers compensation, CBRN weapons carry a much higher threat than conventional attacks. "We're concerned about the long tail that would evolve with radiation from a dirty bomb or nuclear-type weapon," says Paul Ramont, vice president of Workers' Compensation Enterprise Underwriting and Product for St. Paul/Travelers in Hartford, CT. Such occupational claims may take a long time to manifest, he says, citing concerns over "a tail that may emerge on the dust cloud from 9/11, which obvi-

ously isn't covered under TRIA." Variables that vex the modeling of such workers compensation losses include the potential mix of exposures and concentration of risks in a downtown filled with office workers in high-rise towers. The demographics of those workers, such as how many dependents would be covered, is hard to chart too. In Manhattan, Ramont notes, the percentage of singles versus married workers was higher than in other areas.

"There are three million people working in New York," says Lewis. "If just 10% were affected, with an individual death benefit of \$400,000, which is required under New York law, it gives you an idea of just how big the losses could be. You don't need sophisticated models to run the numbers to understand this risk."

#### **MAPPING POTENTIAL LOSSES**

Computer modeling of potential catastrophes, though, has become a vital tool for many underwriters. Because of the increased sophistication in charting the potential insurance cost from natural disasters, the industry turned to the modeling firms after September 11 to help insurers get a handle on terrorism risk. Opinions on the usefulness of the models are mixed.

The PWG and GAO reports "took a kind of a balanced view that models have improved and do quite a good job of modeling event losses," says Jack Seaquist, senior manager and terrorism model project manager for AIR Worldwide.

"If we take a certain weapon and put it at a certain place and ask what hap-

pens if that goes off, the modeling firms have a fairly good idea of what happens," says actuary McCarter. "They've also done work on questions of how widely spread if released in the air a chemical or biological weapon will be. It's a tough job because—fortunately—we don't have many tests or comparisons." But the firms use engineering studies on weapon damage done for the defense department, and they have hired military advisors and terrorist experts to help them gauge the threat.

However, the "deterministic" model of charting damage with a specific weapon at a given place has limited value because of the purposeful nature of a terrorist act. To properly gauge the risk, a "probabilistic" assessment is needed, and one linchpin of determining probability is expected frequency. Again, an accurate assessment is problematic in the face of deliberate acts by terrorists who can situationally adjust their weapons and targets.

"Today, with regard to our ability to assess the frequency of terrorist-related incidents unfolding on American soil, we are no better at reliably, accurately assessing the likelihood of those acts than we were on September 12, 2001," says Valverde.

One big problem is information sharing, he says. For understandable national security reasons, the government does not share such sensitive information with the private insurance industry. "No analytic machinery about vulnerability and economic consequences can help you without reliable information in the first place about the threat itself."

"We do the best job with the best information available," says Seaquist. Sometimes that information is very direct. "Our adversary comes out and says what they want to do."

Even so, says Ramont, "We'd be kidding ourselves if we said on the probabilistic side that we have the ability to properly, over time, build up funding to cover all the possibilities that we have of something extreme happening."

For deterministic models, workers compensation information has advanced greatly in the past five years. "When we first had our workers comp model, nobody had the data we needed to run it," Seaquist says. "We need very detailed data on each building." Often, a company would not know how many or which employees were housed at various locations, so AIR helped clients develop and populate their databases.

"The data quality is getting quite a bit better," Seaquist says. "Most companies have improved their data sets so they know what buildings people are working in and where their people are at any given time."

Continued effort is being expended to determine likely injuries from different types of weapons in various locations, for instance, how a bomb blast affects the buildings around a target. Also, the models are regularly updated when states enact benefit changes, and the modelers seek to address calculations unique to workers compensation, such as the "maximum any one life" computation used in compensation reinsurance.

Models and “accumulation management” tools have offered compensation insurers some ability to get a handle on their exposure. Such tracking “has influenced some underwriting decisions that we didn’t address before 9/11,” says Ramont. “We watch carefully our concentrations.”

#### PUTTING THE BACKSTOP IN PLAY

In the weeks following November’s mid-term elections, the industry speculated on action for renewal of TRIA or creation of another public/private partnership to cover terrorism risk.

Because TRIA renewal went down to the wire in 2004, there is much concern that the issue would not be taken up by Congress until late in 2007, “causing all types of uncertainty in the marketplace,” according to DePoy.

“Absent TRIA, you don’t have the options to exclude terrorism, so companies are going to be faced with the difficult decisions on how much they are willing to write and whether to write in a particular state,” says Lewis. “That’s the uncertainty we want to avoid by moving to a solution earlier in the year.”

Exclusions could pop up in property policies being renewed throughout the year, which could have a ripple effect on business planning, says DePoy. “If you’re out there building a new building, and it’s something that takes several years to build, you’ll need insurance throughout the whole phase.”

“The ultimate beneficiaries of TRIA are the nation’s 6 million business owners and their 150 million employees,” says Valverde. “In the absence of TRIA, many businesses in key industries

would be unable to borrow, build or hire workers, resulting in a drag on the overall economy.”

Early indications among the industry’s Washington representatives showed that the message of urgency was being heard. “It’s encouraging that a lot of the discussion about long-term proposals is being developed now, instead of two months before the end of [TRIA],” says AIA’s Zielezienski.

AIA has presented lawmakers with a two-pronged approach: their proposal separates CBRN risk from conventional. The federal government would reinsure the entire CBRN program, with the first \$10 billion in payments funded through surcharges across all commercial lines after an event. To address conventional terrorism risk, a program similar to TRIA would be continued, but with a floating deductible based on market capacity. Zielezienski explains that the plan “promotes more direct federal involvement on the CBRN side as a way to leverage private reinsurance capacity to be used on the conventional side.”

“We’re very concerned that CBRN coverage be provided by the federal government,” says Ramont. “At the same time, in order to do that there are definitely some differences as to how involved the government should be in non-CBRN coverages.”

Whether to include TRIA in new proposals has been a debating point among concerned parties. “But it’s one of the programs out there that has actually worked,” argues DePoy. “Overnight, the markets changed.”

If time gets short, “the safe fallback ultimately may be to continue the program.”

Leaders in the real estate industry have proposed other forms of a public/private program, and some researching the issue have looked to European solutions. In Great Britain, the PoolRe concept, which includes mandatory participation from all insurers, is getting scrutiny. Since many countries wrap their workers compensation coverage into healthcare policies, there is not a direct correlation as there is with property.

McCarter notes that the actuarial academy will continue to assess the accuracy of conclusions from reports such as the one made by the PWG, and put forth its findings as to “implications and pros and cons of the various types of proposals.” Unbiased research, he says, is necessary in an environment in Washington where lawmakers juggle so many complex issues.

Whatever the next program looks like, says Lewis, “we need to move toward a permanent, long-term solution.”



*Bill Thorness is a freelance writer and editor based in Seattle who writes about insurance regularly for media and industry clients. He is former editor of Claims magazine and holds the associate in claims designation from the Insurance Institute of America. More of his work can be seen at [billthorness.com](http://billthorness.com).*