

Terrorism Risk and Insurance

By The Gosline Insurance Group

Pease Insurance Agency

Tammra Ferraiolo

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In addition to the risk of natural disasters, the insurance industry faces the threat of terrorist attacks. Losses stemming from the destruction of the World Trade Center and other buildings by terrorists on September 11, 2001 totaled about \$32.5 billion, including commercial liability and group life insurance claims—not adjusted for inflation—or \$35.9 billion in 2005 dollars. About two thirds of these losses were paid for by reinsurers, companies that provide insurance for insurers.

Concerned about the limited availability of terrorism coverage in high-risk areas and its impact on the economy, Congress passed the Terrorism Risk Insurance Act (TRIA). The Act provides a temporary program that, in the event of major terrorist attack, allows the insurance industry and federal government to share losses according to a specific formula. TRIA was signed into law on November 26, 2002 and renewed again for two years in December 2005. Passage of TRIA enabled a market for terrorism insurance to begin to develop because the federal backstop effectively limits insurers' losses, greatly simplifying the underwriting process.

RECENT DEVELOPMENTS

Congress: The incoming chairman of the Senate Banking Housing and Urban Affairs Committee, Sen. Christopher Dodd (D. CT), has said publicly that he intends to move quickly in the next Congress to extend TRIA, ideally enacting legislation that will provide a permanent backstop. His counterpart in the House, Rep. Barney Frank (D.MA), said that extending TRIA was a priority also for his committee but he did not endorse a permanent extension. Barney favors extending the law a significant period and then reexamining it in light of conditions at that time. Dodd has asked for input from the two groups most affected by TRIA, the insurance and real estate industries, see Proposals, below. Dodd was one of the architects of the original bill and a sponsor of its extension while the outgoing chairman, Sen. Richard Shelby, opposed TRIA in 2002 and then tried to block the program's extension in 2005.

Terrorism Insurance Market: A recent report from insurance broker Marsh Inc. indicates that take-up rates for terrorism coverage — the percentage of firms buying the insurance — have increased significantly since 2003, when Marsh began tracking its purchase. Real estate firms, financial institutions, health care facilities and media companies were most likely to buy the coverage, particularly the bigger entities in these industries, Marsh notes. Most companies purchase the coverage as part of their overall property insurance program rather than as a “stand-alone” coverage. The average price of terrorism insurance dropped 25 percent in 2005 from the previous year, according to the report.

Proposals for a Permanent Solution: In September, with the expiration of TRIA at the end of 2007 approaching, two legislative proposals for financing terrorism insurance risk were put forward. The property/casualty insurance industry's CEO Roundtable outlined a program in which both the federal government and the private sector would participate with the aim of promoting stability in the financial markets and focusing the federal role on the risks the private sector is not able to assume. Thus, the federal

government would take financial responsibility as a reinsurer for nuclear, biological, chemical and radiological (NBCR) incidents for which there exists only a very limited reinsurance market. As reinsurer for NBCR risk, the federal government would cover workers compensation, since workers compensation laws in all states prohibit exclusion of any cause of workplace injury or illness, and it would cover other types of insurance policies where such risks were not excluded in the policy, such as commercial property. Non-NBCR risks would be handled in much the same way as they are now under the current TRIA extension program. A federally chartered entity would be created to encourage the development of reinsurance for non-NBCR risks, but insurer participation in this would be voluntary.

A second proposal, put forward by the Real Estate Roundtable, would establish a state-chartered mutual reinsurance company, Homeland Security Mutual (HSM), modeled on the United Kingdom's Pool Re, see Background section. The HSM would provide reinsurance for the types of commercial policies covered under the 2005 TRIA extension, with the addition of group life. All primary insurance companies would be required to provide start-up funding, whether or not they purchased reinsurance from HSM, but compensation for losses under the revamped federal TRIA program would only be available to HSM.

Both the U.S. Government Accountability Office and the President's Working Group on Financial Markets published reports on terrorism insurance in September 2006. The two reports essentially support the insurance industry in its evaluation of NBCR risk but unlike the insurance industry, the President's Working Group believes that the existence of TRIA has negatively affected the development of a more robust market for terrorism insurance, a point on which the industry disagrees. TRIA is the reason that coverage is available, insurers say. The structure of the program has encouraged the development of reinsurance for the layers of risk that insurers must bear themselves – deductible amounts and coinsurance – which in turn allows primary insurers to provide coverage. Without TRIA, there would be no private market for terrorism insurance. The GAO study concludes that NBCR risk is uninsurable and that the situation is not likely to change in the foreseeable future but says little about terrorism insurance overall. The President's Working Group agrees with the GAO on NBCR risk and also says that it is difficult to evaluate the ability of the private market to underwrite terrorism insurance because of the uncertainty involved in predicting the frequency of terrorism attacks.

The new Chairman of the Federal Reserve, Bernard Bernanke, believes that some form of federal involvement is necessary because some losses could be so huge that the private sector could never cover them. Indeed, the reinsurance industry can supply only a fraction of what is needed, according to the Reinsurance Association of America. In 2005 the industry's capacity was about \$6 to \$8 billion for TRIA-certified, "stand-alone" and treaty reinsurance and most policies specifically excluded coverage for NBCR risks, industry experts note. Hedge funds may add \$3 billion to \$4 billion in capacity.

At a meeting at the end of March 2006 to solicit comments from the insurance industry, representatives of the Property Casualty Insurers Association of America outlined a potential approach, which includes extending the federal program for multiple years with gradual increasing deductibles and thresholds; removing the distinction between foreign and domestic terrorist acts; addressing personal lines, which are not currently covered by TRIA; encouraging the accumulation of "pretax reserves" for handling losses; and creating a new middle layer of terrorism coverage, managed and funded by the insurance industry, among other things.

Potential Losses: A study by the American Academy of Actuaries of damage from a range of terrorism acts in four U.S. cities puts insured losses in the hundreds of billions for incidents involving NBCR. In New York, where losses would be the highest of the four cities, a large NBCR event could cost as much as \$778.1 billion, with insured losses for commercial property at \$158.3 billion and for workers compensation at \$483.7 billion. Des Moines, the smallest of the cities would suffer insured losses of \$42.3 billion in a

similar NBCR event. A truck bomb would result in \$11.8 billion in insured losses in New York and \$3.0 billion in Des Moines. The other two cities in the analysis were Washington, D.C. and San Francisco.

Risk Management Solutions, a risk modeling firm, said in January that under the TRIA extension (TRIEA) there is a 10 percent chance each year that any given attack would reach the new threshold. Even though the TRIA trigger point has risen to \$50 million, only an event that caused more than \$30 billion in total insured losses would result in a federal payout.

BACKGROUND

Prior to September 11, 2001, insurers provided terrorism coverage to their commercial insurance customers essentially free of charge because the chance of property damage from terrorist acts was considered remote. After September 11, insurers began to reassess the risk. For a while terrorism coverage was scarce. Reinsurers were unwilling to reinsure policies in urban areas perceived to be vulnerable to attack. Primary insurers filed requests with their state insurance departments for permission to exclude terrorism coverage from their commercial policies.

The Difficulty of Insuring Terrorism Risk: From an insurance viewpoint, terrorism risk is very different from the kind of risks typically insured. To be readily insurable, risks have to have certain characteristics.

The risk must be measurable. Insurers must be able to determine the possible or probable number of events (frequency) likely to result in claims and the maximum size or cost (severity) of these events. For example, insurers know from experience about how many car crashes to expect per 100,000 miles driven for any geographic area and what these crashes are likely to cost. As a result they can charge a premium equal to the risk they are assuming in issuing an auto insurance policy.

A large number of people or businesses must be exposed to the risk of loss but only a few must actually experience one so that the premiums of those that do not file claims can fund the losses of those who do.

Losses must be random as regards time, location and magnitude.

Insofar as acts of terrorism are intentional, terrorism risk doesn't have these characteristics. In addition, no one knows what the worst case scenario might be. There have been very few terrorist attacks, so there is little data on which to base estimates of future losses, either in terms of frequency — the number of attacks per year — or the size of the losses, known in insurance jargon as severity. Terrorism losses are also likely to be concentrated geographically, since terrorism is usually targeted to produce a significant economic or psychological impact. This leads to a situation known in the insurance industry as adverse selection, where only the people most at risk purchase coverage, the same people who are likely to file claims. Moreover, terrorism losses are never random. They are carefully planned and often coordinated.

Assessing Risk: To underwrite terrorism insurance — to decide whether to offer coverage and what price to charge — insurers must be able to quantify the risk: the likelihood of an event and the amount of damage it would cause. Increasingly, they are using sophisticated modeling tools to assess this risk. According to the modeling firm, AIR Worldwide, the way terrorism risk is measured is not much different from assessments of natural disaster risk except that the data used for terrorism are more subject to uncertainty. It is easier to project the risk of damage in a particular location from an earthquake of a given intensity or a Category 5 hurricane than a terrorist attack because insurers have had so much more experience with natural disasters than with terrorist attacks and therefore the data to incorporate into models are readily available.

One problem insurers face is the accumulation of risk. They need to know not only the likelihood and extent of damage to a particular building but also the company's accumulated risk from insuring multiple

buildings within a given geographical area, including the implications of fire following a terrorist attack. In addition, in the United States, workers compensation insurers face concentrations of risk from injuries to workers caused by terrorism attacks. Workers compensation policies provide coverage for loss of income and medical and rehabilitation treatment from "first dollar," that is without deductibles.

Extending the Terrorism Risk Insurance Act (TRIA): There is general agreement that TRIA has helped insurance companies provide terrorism coverage because the federal government's involvement offers a measure of certainty as to the maximum size of losses insurers would have to pay. However, when the Act came up for renewal in 2005, there were some who believed that market forces should be allowed to deal with the problem.

The U.S. Treasury released a report on TRIA in June 2005, finding that the program had been effective in terms of the purpose for which it was designed, namely to provide a transitional period during which insurers could develop enhanced capacity to write terrorism risk insurance coverage. But, the report said, TRIA should not be renewed in its original form because while the program is in effect it slows the development of additional private market capacity to provide terrorism insurance coverage, a view not held by insurers and many others. Federal Reserve Board Chairman Alan Greenspan said that Congress could expect the private insurance system to bear the financial risk of terrorism alone, suggesting that the federal government's involvement in this area is necessary. The Bush Administration made it known that it would accept an extension of the Act "only if it includes a significant increase in the event size that triggers coverage, increases the dollar deductible and percentage co-payments and eliminates from the program certain lines of insurance" that should be left to the private market.

Studies by various organizations supported a temporary continuation of the program in some form, including the University of Pennsylvania's Wharton School, the RAND Corporation and the Organization of Economic Cooperation and Development (OECD), an organization of 30 member countries, many of which have addressed the risk of terrorism through a public/private partnership, see below. The OECD said in an analysis released shortly after the Treasury report that financial markets have shown very little appetite for terrorism risk because of the enormity and unpredictability of the exposure. RAND argued not only that TRIA should be extended but also that Congress should act to increase the business community's purchase of terrorism insurance and lower its price. In addition, RAND suggested that any long-term solution to providing coverage must address the risk of attacks by domestic terrorists and chemical, biological, radiological and nuclear attacks, none of which are covered under the existing terrorism legislation. RAND also advocated mandatory coverage for some "vital systems," establishing an oversight board and increasing efforts to mitigate the risks.

The Terrorism Risk Insurance Extension Act (TRIEA): Congress passed an extension of the 2002 Act at the end of December 2005. The legislation extending the Act to December 2007 greatly increased the portion of the loss insurers would pay in the event of a terrorist attack.

The following are among the extension's major provisions:

The triggering event, the threshold for the program to go into effect, rose from \$5 million under the original Act to \$50 million after March 2006. In 2007 the trigger will rise to \$100 million. Only terrorist acts likely to produce total insurance industry losses above the threshold will result in payment of federal funds.

Individual company deductibles — the amount an insurer must pay before the federal program kicks in — rose from 15 percent of commercial property/casualty insurance premiums in 2005 to 17.5 percent in 2006 and 20 percent in 2007.

Copayments, the amount insurers must pay above their individual deductibles or retentions, stayed the

same in 2006 as in 2005 — 90 percent federal/10 percent insurer — but rise to 85 percent/15 percent in 2007.

The industry as a whole must cover a certain amount of the losses before federal assistance is available. This amount rose from \$15 billion in 2005 to \$25 billion in 2006 and rises again in 2007 to \$27.5 billion. The difference between this amount and the aggregate amount that insurers must pay (deductibles and copayments) can be recouped from commercial policyholders through a surcharge not to exceed 3 percent of premium for insurance coverages that fall under the TRIEA program.

How TRIEA Functions: The Terrorism Risk Insurance Act and its extension (TRIEA) authorized the creation of a federal reinsurance plan, which is triggered when insured terrorism losses exceed a predetermined amount. The program, a sharing of losses between the insurance industry and the federal government according to a preset formula — a type of reinsurance — has enabled the commercial insurance market to function, even though the threat of terrorism remains.

The law defines an act of terrorism. To be covered by the federal program, an act of terrorism must be committed by individuals acting on behalf of foreign interests and as part of an effort to influence the policy or conduct of the United States. The law also requires that the act be certified by the Secretary of the Treasury in concurrence with the Secretary of State and the Attorney General. Insurers do not pay the federal government for this reinsurance coverage.

Only commercial insurers and causes of losses specified in the underlying policies are covered. In addition to commercial lines insurers, insurers eligible for coverage under TRIEA include residual market entities such as workers compensation pools, state-licensed captive insurers and risk retention groups, see report on Captives. Personal lines insurance companies — those that sell auto and home insurance — and reinsurers are not covered. Neither are group life insurance losses. Most types of commercial insurance losses were covered under the original legislation except some specialty coverages such as medical malpractice and crop insurance. Additional commercial insurance coverages were deleted under the 2005 extension including commercial auto insurance, professional liability except for directors and officers liability, surety, burglary and theft and farm-owners multi peril, a coverage similar to homeowners. Directors and officers liability covers the top management of a company in the event of a lawsuit charging negligence or false statements.

In return for the federal backstop, commercial insurers must make terrorism coverage available and conspicuously state the premium charges; policyholders may, of course, reject the offer and choose to mitigate this class of risk in other ways. In offering terrorism coverage to their policyholders, commercial insurers must make it available on the same terms and conditions as they offer in their non-TRIA coverage.

To minimize the likelihood of a wave of liability claims, after September 11 Congress established the Federal Victims Compensation Act which provided nearly \$7 billion in payments to families of September 11 victims. In return, victims' families were required to give up the right to sue those they perceived as responsible parties.

Mandated Coverages/Exclusions: Insurance in the United States is state regulated. Regulators oversee solvency, market conduct and rates. In addition, they can require insurers to cover certain risks, if they perceive it to be in the public interest.

For example, on-the-job injuries under workers compensation insurance are covered whatever their cause. No state permits some types or causes of injury to be covered and others excluded. The only requirement is that they be incurred in the course of employment. Thus, injuries in the workplace resulting from terrorist attacks are covered whether the attacks are foreign in origin and therefore compensable under TRIEA or

domestic. Domestic acts are excluded from TRIEA. Workers compensation insurance is a mandatory coverage in all states but Texas.

Many states have adopted a standard fire policy, which, among other things, establishes exclusions from coverage. In these states, fire from all causes, including earthquake but excluding war, is covered. Some states with a standard fire policy have allowed fire following a terrorist attack to be excluded, if the policyholder turned down terrorism insurance coverage. In the remainder, fire following a terrorist attack is covered, whether or not the business purchased terrorism coverage. More than a dozen states with a standard fire policy have a commercial terrorism exclusion on their books. About the same number have a standard fire policy without a terrorism exclusion.

In 2005, with the possibility looming that TRIA might not be extended or that it might be modified, 47 states and the District of Columbia approved specific optional exclusions for terrorism coverage. The exclusions are only triggered when losses reach a predetermined level: \$25 million in total insured property losses including business interruption (liability policies also include a trigger of 50 or more people killed or seriously injured for bodily injury). When one or both of these thresholds are reached, there is no payment for any damage or injury arising out of the terrorist act from any insurance company under the relevant policies, with the exception of workers compensation losses, which are always covered. So, in the event of an attack like the Oklahoma City bombing, which caused 166 deaths and more than \$100 million in insured property damage and was carried out by domestic terrorists and therefore would not be certified by the Treasury Secretary as eligible for federal government reimbursements under TRIA, there would be no coverage. These "post-TRIA" exclusions are similar to the exclusions approved for use by most regulators following September 11 but before TRIA was originally enacted in 2002.

Florida, Georgia and New York did not grant approval for the use of these exclusions. These three states have been consistent in their stance that the only situation in which terrorism coverage may not be included is if a policyholder is offered coverage for certified acts subject to TRIA and has rejected it. Non-TRIA covered terrorism losses may not be excluded, the idea being that the mandatory inclusion of terrorism coverage will ensure funds are available to rebuild after an attack.

Managing Risk, Proposals for the Use of Dedicated Capital: One proposal that has been discussed for a number of years even before September 11 in conjunction with mega-natural disasters like Hurricane Katrina to help insurers better manage risk is allowing insurers to accumulate tax-deferred catastrophe reserves.

Under current tax law, insurers can only put money aside in special funds or "reserves" to pay for claims if an event, such as a terrorist attack, has already occurred. Funds to pay for catastrophic losses come from an insurer's policyholder surplus, which acts as a financial cushion in such situations. As a general rule, an insurer must maintain a certain level of capital and surplus to support the insurance policies it has issued. If it allows its surplus to drop significantly below industry standards and claims from a major terrorist attack create a drain on its assets, it may become insolvent. But if it increases its policyholder surplus to fund an event that may only happen once in a lifetime, it incurs opportunity costs — the loss of a chance to do something more economically productive with the money, such as generating additional business.

Various proposals for tax-deferred catastrophe reserves have been developed by insurers, the National Association of Insurance Commissioners and others. Some would make it mandatory for insurers to set aside pre-event reserves, while others would not. Some have a specific dollar target for total industry catastrophe reserves. However, each plan would allow tax deductions for amounts contributed to reserve accounts and then tax the funds withdrawn to pay claims.

Special Terrorism Insurance Programs in Other Countries: The United States is not the first country to establish a terrorism insurance program. Some countries created programs to cover terrorism after September 11 or earlier, following a terrorist attack on their own soil. Below are some examples.

Australia: Legislation was passed in 2003, under which terrorism exclusions in commercial policies are nullified once the government has declared that a terrorist incident has occurred. The legislation also created a reinsurance pool to cover insurance company losses from property, business interruption and third-party liability coverages, subject to a certain insurance company deductible, about 4 percent of property insurance premium. Insurers pay premiums into the pool which is back-stopped by the government.

Austria: A terrorism pool has been in operation in Austria since January 2004. The pool provides protection against property damage and business interruption up to a certain limit. Participation is voluntary.

France: Terrorism is covered by a reinsurance pool to which terrorism risk above a certain retention level must be "ceded" or transferred. All insurers must be members of the pool, which is backed by the government-owned Caisse Central de Reassurance (CCR). The CCR acts as the reinsurer for all terrorist claims that in total exceed 1.5 billion euros.

Germany: Private insurers cede commercial insurance coverage written above a certain limit to a pool. The pool, in turn, cedes all its risk to other insurance companies, which act as reinsurers. The ultimate layer of protection, for which insurers pay reinsurance premiums, is provided by the government, at least until December 2007, The government pays claims above an aggregate amount.

Netherlands: A terrorism reinsurance company was created to reinsure its member companies who retain a percentage of the risk. Coverage is limited per member and in the aggregate.

Spain: There is a government-sponsored pool which provides coverage against injury, property damage and business interruption due to catastrophes, natural and man-made. Coverage for extraordinary risks is mandatory. The original need for terrorist coverage stemmed from acts of violence carried out by the Basque separatist movement, which has been active in Spain for many decades. The 2004 Islamic terrorist bomb attacks in Madrid exacerbated the risk. Private insurers may provide catastrophe coverage but they are still required to make payments to the pool, which is backed by an unlimited guarantee from the government.

United Kingdom: The government formed a mutual reinsurance pool for terrorist coverage in 1993, following acts of terrorism by the Irish Republican Army. Insurance companies pay premiums at rates set by the pool. There are two geographic zones, one for major cities, with an adjustment for a "target risk," and the other for the remainder of the country. The primary insurer pays the entire claim for terrorist damage but is reimbursed by the pool for losses in excess of a certain amount per event and per year. This is based on its share of the total market. The maximum industry retention increases annually per event and per year. Following the World Trade Center disaster, coverage was extended to cover all risks, except war, including nuclear and biological contamination, aircraft impact and flooding, if caused by terrorist attacks. The government acts as the reinsurer of last resort, guaranteeing payments above the industry retention.