Skip all front matter: Jump to Page 1

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RAND Center for Catastrophic Risk Management and Compensation

CONFERENCE PROCEEDINGS

The Future of the Terrorism Risk Insurance Act

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For more information on this publication, visit www.rand.org/t/cf325

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Preface

Since the Terrorism Risk Insurance Act (TRIA) was last reauthorized in 2007, terrorism insurance has remained widely available and the price has fallen. However, challenges remain from both a social and an insurance point of view. Roughly 40 percent of policyholders still do not purchase terrorism coverage, and uncertainty remains regarding how much coverage would be available without TRIA. What is more, the program is set to expire on December 31, 2014, and it is unclear whether the improvements in the market since TRIA was first passed in 2002 will be sustained without it.

To inform the debate over whether TRIA should be continued or allowed to expire, RAND has released policy briefs on three related topics:

- *National Security Perspectives on Terrorism Risk Insurance in the United States* (http://www.rand.org/pubs/research_reports/RR573.html)
- *The Impact on Federal Spending of Allowing the Terrorism Risk Insurance Act to Expire* (http://www.rand.org/pubs/research_reports/RR611.html)
- *The Impact on Workers' Compensation Insurance Markets of Allowing the Terrorism Risk Insurance Act to Expire* (http://www.rand.org/pubs/research_reports/RR643.html).

On June 10, 2014, a conference was convened in Washington, D.C., to present the findings of the policy briefs and to address additional facets of this complex issue, including the pros and cons of proposed modifications to TRIA. This conference brought together stakeholders to not only discuss the varying implications of TRIA's expiration, modification, and extension, but also to frame how it is debated in the halls of Congress and across the country. The conference was sponsored by American Insurance Association, Chubb & Son, the Financial Services Roundtable, Liberty Mutual Insurance Group, the NAREIT Foundation, the National Association of Mutual Insurance Companies, the National Council on Compensation Insurance, the Property Casualty Insurers Association of America, The Real Estate Roundtable Education and Research Foundation, the Reinsurance Association of America, Willis Group, the International Council of Shopping Centers, and Perrin Conferences.

RAND Center for Catastrophic Risk Management and Compensation

The RAND Center for Catastrophic Risk Management and Compensation conducts research and seeks to identify policies, strategies, and other measures that have the potential to reduce the adverse social and economic effects of natural and manmade catastrophes by

- improving incentives to reduce future losses
- providing just compensation to those suffering losses while appropriately allocating liability to responsible parties

- helping affected individuals, businesses, and communities to recover quickly
- avoiding unnecessary legal, administrative, and other transaction costs.

The center is part of RAND Justice, Infrastructure, and Environment, a division of the RAND Corporation dedicated to improving policy and decisionmaking in a wide range of policy domains, including civil and criminal justice, infrastructure protection and homeland security, transportation and energy policy, and environmental and natural resources policy.

Questions or comments about this report and requests from more information about the Center for Catastrophic Risk Management and Compensation should be sent to ccrmc@rand.org. For more information on RAND Justice, Infrastructure, and Environment, see http://www.rand.org/jie or contact jie@rand.org.

Table of Contents

1. Introduction

Roughly one-half of the losses caused by the September 11, 2001, terrorist attacks were covered by insurance.[1] However, after the event, insurers began to exclude terrorism coverage from commercial insurance policies, and terrorism risk insurance quickly became extremely costly or unavailable. This was a problem for two reasons:

- Development projects were stalled due to the unavailability of terrorism coverage or the high cost of such coverage
- Financial resources available post-attack were reduced, raising the question of who would pay if another attack occurred.

Congress passed the Terrorism Risk Insurance Act (TRIA) at the end of 2002. It put in place a type of public-private partnership for commercial terrorism insurance. Under TRIA, the insurance industry picks up the first tier of losses, with the federal government reimbursing insurers for larger losses. In addition, the government recovers its outlays up to a certain level through a nationwide surcharge on the insurance policies in TRIA-covered lines. Thus the risk of a very large attack is spread nationwide.

The program was temporary, initially lasting three years. The initial objectives of the program were to

- ensure that business activity did not materially suffer from a lack of available terrorism insurance
- provide a transition period for the insurance industry to develop the models and tools that would enable it to more easily price terrorism risk and cover losses after TRIA expired.

The program was reauthorized in 2005 for two years and in 2007 for seven years, and is now set to expire at the end of 2014.

The TRIA program has five key elements:

- **Program trigger.** The amount insured losses from a terrorist attack must exceed, industry-wide, before the payments are available through the program (currently $100 million).
- **Insurer deductible.** The maximum amount of insured losses for which an insurer remains entirely responsible. An insurer's deductible is currently 20 percent of the prior year's direct earned premium in TRIA-eligible lines.
- **Insurer cost share.** The proportion of losses above the deductible that the insurer must pay (currently 15 percent).
- **Aggregate industry retention.** The minimum amount of insured loss that the insurance marketplace must cover through insurer deductibles, cost shares, and surcharges on

[1] See Lloyd Dixon and Rachel Kaganoff Stern, *Compensation for Losses from the 9/11 Attacks,* Santa Monica, Calif.: RAND Corporation, MG-264-ICJ, 2004.

commercial policyholders before taxpayers are responsible for any part of the insured loss (currently $27.5 billion).

- **Program cap.** The amount of total annual insured losses in TRIA-eligible lines above which neither an insurer nor the government is liable for paying claims (currently $100 billion).

Commercial insurers must offer property and casualty coverage for terrorism on terms that do not differ materially from those for coverage for other perils. Other notable features of the current TRIA program are that (1) domestic terrorism is covered (in addition to terrorist attacks carried out by agents of foreign governments or organizations); (2) attacks using nuclear, biological, chemical, and radiological (NBCR) weapons are not treated separately from attacks using conventional weapons; and (3) state laws regarding coverage requirements and exclusions are generally not affected by TRIA.

Debate continues on the role government should play in the insurance market for terrorism risk. Some argue that TRIA is a give-away to the insurance industry—a government subsidy. They argue that the government should not meddle, and that government involvement just impedes the development of the private market. Others argue that the particular features of terrorism risk make it difficult for the private sector to provide terrorism insurance on its own. They argue that without TRIA, we would return to the conditions in 2002:

- high cost and reduced availability that would slow economic activity
- lower take-up, which would mean that the government would be on the hook for a large amount of uninsured losses after an event.

To inform the debate over whether TRIA should continue or be allowed to expire, RAND convened a conference in Washington, D.C., on June 10, 2104 (see the Appendix for the conference agenda). These conference proceedings summarize the key points made during the course of the day. Highlights from the morning session on three recently released RAND policy briefs are presented in Chapter Two. During lunch, RAND terrorism expert Brian Michael Jenkins reviewed the status of the terrorist threat. The main points raised in his presentation are reported in Chapter Three. Two panel discussions were held in the afternoon: the first on the pros and cons of various modifications to TRIA and the second on what the endgame might be for TRIA. The main insights from these discussions are presented in Chapters Four and Five, respectively.

2. Morning Session: Discussion of the RAND Policy Briefs

To inform the reauthorization debate, RAND has released three policy briefs through the RAND Center for Catastrophic Risk Management and Compensation (CCRMC). These policy briefs address particular issues that members of Congress and Congressional staff should be aware of as they decide whether to renew TRIA and, if so, how it should be modified. The three policy briefs are

- *National Security Perspectives on Terrorism Risk Insurance in the United States*[2]
- *The Impact on Federal Spending of Allowing the Terrorism Risk Insurance Act to Expire*[3]
- *The Impact on Workers' Compensation Insurance Markets of Allowing the Terrorism Risk Insurance Act to Expire*[4]

In each of these briefs, the authors compare the insurance market with TRIA in place as currently configured to the insurance market should TRIA expire. In the morning session, the key findings in the briefs were presented and discussed. The highlights of the discussion for each of the briefs are presented below.

Comments on *National Security Perspectives on Terrorism Risk Insurance in the United States*

A central conclusion of the policy brief on national security perspectives on terrorism risk insurance is that terrorism risk models based on historical events or theories of terrorist decisionmaking are limited. These models do not offer a validated means to estimate the likelihood of future attacks from terrorist threats beyond those that have been already observed.

Participants raised several questions about the capacity to model and price terrorism risk. One question was whether we know anything about the frequency of terrorist attacks, as opposed to the probability distribution of damages arising from given attack modes. In response, a participant noted that continuing experience with terrorism does offer an evidence base that may be helpful for predicting the frequency of the attack modes that have been most common historically, such as small explosives and shootings. However, our ability to model frequency is most deficient for new attack modes, such as NBCR attacks, and in the case of an adversary with a different intent or capability.

Another commenter argued that the distinction between the predictability of terrorism and the predictability of natural disasters is not as clear-cut as is often assumed. Earthquake risk outside

[2] By Henry Willis and Omar Al-Shahery, available at http://www.rand.org/pubs/research_reports/RR573.html.

[3] By Tom LaTourrette and Noreen Clancy, available at http://www.rand.org/pubs/research_reports/RR611.html.

[4] By Michael Dworsky and Lloyd Dixon, available at http://www.rand.org/pubs/research_reports/RR643.html.

of California and other high-risk zones is an example of a natural catastrophe risk that is subject to significant model uncertainty. In this case, modeling is aided by seismological surveillance that allows real-time monitoring of changes in risk, which improve the predictability of earthquake risk even where the evidence base is limited. It was suggested that intelligence and counterterrorism agencies can play a similar monitoring role even though terrorism risk is believed to evolve continually. A counterargument to this view was that threat monitoring to enable short-term responses like interdiction and warning is a fundamentally different problem from estimating the probability of different attack scenarios: counterterrorism may be better at the former, but the latter is what is important for insurability. In addition, the intentional character of terrorism limits the usefulness of information-sharing, a problem that is not present with natural catastrophe hazards.

One participant asked whether big data or social network analysis (e.g., text analysis of Facebook) could be valuable for identifying emerging terrorist threats. It was noted in response that the ability to identify new threats (such as new political movements) prior to execution of a terrorist act remains questionable, and it is unclear whether access to data is the limiting factor on our modeling ability (as opposed to our ability to make sense of data that is already openly available). Privacy and civil liberties may also impose important constraints on data-intensive threat-monitoring approaches.

Comments on the *Impact on Federal Spending of Allowing the Terrorism Risk Insurance Act to Expire*

Many experts predict that TRIA's expiration would increase the price and reduce the availability of terrorism coverage, resulting in a reduction in the number of businesses with terrorism coverage. This policy brief finds that if this were to occur, more attack losses would go uninsured. This would increase demand for disaster assistance in the event of an attack, which could cause federal spending to rise. The brief goes on to conclude that, in the absence of an attack, TRIA costs taxpayers little. In the event of an attack comparable to 9/11, it is expected to save taxpayer money. For attacks of large enough magnitude, TRIA could generate net outlays for the federal government.

One participant pointed out that the reliability and timeliness of private insurance payments is an important consideration in evaluating the advantages and disadvantages of TRIA. Community Development Block Grant (CDBG) payments can take one to two years to be disbursed, while Small Business Administration loans and Federal Emergency Management Agency (FEMA) assistance have significant administrative burdens that may be avoided by private insurance. Increased take-up of private terrorism coverage due to TRIA may thus result in more-rapid payments to parties suffering terrorism-related losses, thereby speeding economic recovery.

Comments on the *Impact on Workers' Compensation Insurance Markets of Allowing the Terrorism Risk Insurance Act to Expire*

This RAND policy brief makes the point that expiration of TRIA may lead insurers to reduce the amount of workers' compensation capacity they provide to reduce the threat of insolvency posed by a large attack. Because workers' compensation coverage is mandatory for nearly all U.S. employers, high-risk employers might then be forced to obtain coverage in markets of last resort, which often charge employers more for coverage. The mechanisms used to finance claims paid in the market of last resort could also mean that workers' compensation losses from a catastrophic attack would be borne largely by businesses and taxpayers of the state in which the attack occurs. This would make rebuilding in that state more challenging than it would be should TRIA remain in place, because the Act spreads losses countrywide.

One participant raised the point that some insurers are diversified away from any single attack scenario simply by virtue of maintaining books of business that span many regions and insurance lines, and risk-pooling within the insurance company would also help relieve the pressure to reduce capacity in the event of TRIA expiration. But it was also observed that catastrophe models unfortunately predict losses from realistic (if improbable) attack scenarios that are large enough to matter for even the largest primary insurers.

An early TRIA reauthorization proposal circulated by a member of the House Financial Services Committee bifurcated the TRIA program, raising the program trigger to $500 million for conventional attacks but leaving the trigger for NBCR attacks unchanged. A participant inquired about the implications of such a reform for workers' compensation markets. It was observed that increases in the program trigger would have very different implications for large and small insurers. Another participant commented that the vast majority of property/casualty insurance companies in the United States have less than $1 billion in surplus and that small monoline workers' compensation insurers continue to serve the needs of employers with businesses that pose unique underwriting and claims management challenges. These small insurance companies are able to compete with larger, better-capitalized multiline insurers because of their expertise, and as such they may provide the benefits of choice and competition to employers that would not be as well-served by less-specialized large insurers. Because these companies can have books of business smaller than $100 million, increases in the program trigger would increase the range of attacks that could threaten their solvency yet fail to trigger TRIA reimbursement. If TRIA expired, it was feared that reductions in the competitiveness of small insurance companies (e.g., because they need to spend a greater share of their premium on expensive terrorism reinsurance) would change the workers' compensation rate structure across industries and differentially impact employers in the niches served by specialty carriers.

3. Invited Comments on the Status of the Terrorism Threat

Brian Michael Jenkins reviewed the latest perspectives and current thinking about the threat terrorism poses today and trends that suggest what the threat of terrorism might be in the future. Mr. Jenkins is an internationally renowned terrorism expert and special advisor to the president of the RAND Corporation.

Jenkins observed that it is impossible to be omniscient and that surprises will always occur. Nevertheless, Jenkins explained how the history of terrorism holds lessons. To do so, he pointed to three types of evidence. First, the record of *what terrorists have done* reveal known capabilities and intentions. Second, *what terrorists have been caught plotting to do* represent manifestations of their intentions—even if those intentions are for attacks that exceed their resources and capabilities. Third, *what terrorists write and talk about* reveals what they are contemplating. While aspirational and usually overly ambitious, terrorist musings can foreshadow future events and are worth paying attention to.

The record of terrorism provides a diverse record of accomplishment:

- Bombings and sabotage of public transportation
- Poisonings and biological attacks
- Bombings in ports and harbors
- Airplanes hijacked, shot with missiles, or bombed
- Bombs, arson, and firebombing at public buildings and events
- Armed assaults.

Jenkins discussed how the record of documented events since 1970 holds numerous examples of attacks like these.

Aspirational attacks further broaden the terrorist playbook:

- Attacks on bridges, tunnels, and infrastructure
- Sabotage of energy, telecommunications, water, or financial infrastructure
- Nuclear, chemical, or radiological attacks.

He elaborated that these types of attacks, while discussed in terrorist musings, each require sophisticated technical and logistical expertise. They are less likely than attacks like those seen before, but they can never be ruled out completely.

Based on this history and reports about terrorist aspirations, Jenkins concluded that seven types of attacks stand above others as events that have occurred or have been attempted. These seven events, he asserted, are among the events most likely to appear in tomorrow’s headlines:

1. multiple bombs on a transit system
2. vehicle bomb in a public place
3. powerful bomb in a public area of an airport
4. bombing of one or more passenger airliners

5. smaller-scale Mumbai or Nairobi-style attack, possibly with hostages
6. missile attack on a commercial airliner
7. limited dispersal of poisons or crude pathogens in a building or transportation system.

Despite the wide range of threats the public could expect, Jenkins concluded with several observations that the insurance industry and property owners could draw upon as they seek to manage terrorism risk.

First, Jenkins emphasized that the more likely scenarios in the catalogue of terrorist mayhem do not involve mass physical destruction or even casualties on the scale of 9/11. The bulk of economic costs will not be direct physical destruction. Some of the losses will be casualties, but most will be due to the cascading effects of fear: loss of business, reduction of property value, increased security and other indirect costs, etc.

Second, Jenkins urged the industry to take the long view. He pointed out that it is important not to focus myopically on what terrorists are doing now and that what starts out as a mad scheme may become an audacious attack. Consider, for example, the following timeline that led up to the use of a commercial aircraft as a weapon:

- crashing a hijacked airliner threatened in 1972
- mentioned publicly in 1983
- part of an attempted terrorist hijacking in 1986
- briefed to the airline industry in 1989
- addressed as a possible scenario of threats to the World Trade Center in 1993
- part of further terrorist planning in 1994 and 1995
- briefed to the Senate Intelligence Committee in 1997
- successfully carried out on September 11, 2001.

Third, Jenkins noted that even though what terrorists say often reflects their fantasies rather than evidence of operational planning, their statements give an idea of their directions. But, of course, there will always be surprises.

Finally, Jenkins stated that terrorist aspirations generally exceed capabilities, but there is not always a great distance between the two. The difference often lies in hands-on training or actual field experience. This is why, Jenkins emphasized, security professionals are so concerned about large numbers of foreign fighters in Syria. Veterans of the Syrian civil war could significantly raise the skill level of jihadists in the United States and worldwide.

4. First Panel Discussion: Pros and Cons of Various Modifications to TRIA

During the ongoing TRIA reauthorization process, a number of changes have been proposed to the TRIA program. The purpose of this panel was to explore the pros and cons of various modifications to TRIA, including examining such questions as what aspects of TRIA are most important to the way the terrorism insurance market work and what the consequences would be of changing those aspects. The major points made by panelists and conference participants during the discussion of each of the potential reforms are summarized below.

Increasing the Program Trigger

The trigger for the TRIA program is $100 million in insured losses, and proposals have been made to increase it to $500 million.

In the view of some, even the current $100 million program is unfair to small and medium-sized companies with less than $1 billion in policyholder surplus. TRIA coverage is important to such companies even for smaller terrorist attacks. These companies make an important contribution to the communities they serve, and it is important that they not be at a disadvantage in the marketplace. According to an analysis of a relatively small terrorist attack scenario in New York state ($110 million in insured loss) presented by one panelist, increasing the program trigger from $100 million to $500 million could substantially increase the number of companies that would experience a loss of more than 50 percent of policyholder surplus.

One participant—who runs an insurance company that writes policies in New York—said that if the program trigger were $500 million, it would prevent any insurance company with surplus less than $1 billion from writing policies in New York City. The reason is that such a company would have to consider the possibility of a $500 million loss, which would be catastrophic because it would eat up more than 50 percent of its surplus.

The concern was raised by another attendee that if the program trigger increased then industry consolidation would accelerate—which might not be in the interests of policyholders.

One participant wondered whether there is sufficient reinsurance capacity to handle an increase in the program trigger. It was observed in response that as soon as there is another event, the amount of reinsurance capacity will likely become small. The question arose about why the situation is different for terrorism than for natural catastrophe risks, such as hurricanes or earthquakes. The response was that the problem with terrorism is that terrorists are an intelligent enemy—they are looking to maximize damage and injury. In the view of one participant, terrorism events are really about government errors and omissions—analogous to the insurance for directors' errors and omissions.

Increasing the Insurer Deductible

Currently, insurers face a deductible equal to 20 percent of the premium in TRIA lines for the preceding year. Although not part of current congressional proposals, one way to scale back the program is to increase the deducible.

One panelist presented an analysis of how the deductible compares to policyholder surplus. Based on his experience with the industry, he believes that once the deductible/surplus ratio exceeds 15 percent, terrorism coverage becomes a source of stress for a carrier. If the TRIA deductible rose to 25 percent, he found that there would be too many companies with a deductible/surplus ratio greater than 15 percent. The conclusion follows that the 20-percent deductible is about as much as the market can bear.

It was observed that evaluations of a higher deductible should also consider the consequences for an insurer's credit rating. That credit rating is important because it reflects the ability of the insurance company to pay in the event of an attack. Rating agencies and their rating guidelines are an important reason that the TRIA deductible is already at a tipping point. A participant responded that credit-rating agencies do not look only at the deductible/surplus ratio because that is too crude a measure. The terrorism insurance surveys used by some credit-rating agencies as a part of the rating process look at numerous terrorism scenarios and the exposures relative to the capital position of the insurance company. But they do not have a specific ratio or number that they are looking for. They look at it a bit more subjectively.

It was also observed that the consequences of a higher deductible on insurer solvency post-attack should be considered. If a higher deductible increases the chances of insurer insolvencies, that could mean higher costs for the taxpayers who might be on the hook for the some of the insolvency costs.

One of the advantages cited for a higher deductible was that it could reduce taxpayer exposure, particularly considering that there may be intense pressure on the government to forego any recoupment of government outlays. Another participant agreed that increasing the deductible is a way to reduce taxpayer exposure, but argued that it would come at the cost of lower credit ratings for many companies.

Bifurcating the Program for Conventional and NBCR Attacks

Currently TRIA makes no distinction between conventional and NBCR attacks. Proposals have been made to treat conventional attacks differently from NBCR attacks, on the theory that the private sector is better able to insure conventional attacks than NBCR attacks.[5]

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[5] Even though TRIA does not distinguish between conventional and NBCR attacks, that does not mean that losses from NBCR attacks will be covered by terrorism insurance. Insurers are required to offer NBCR coverage only if the underlying policy covers losses due to non-terrorism NBCR events. In the majority of cases outside workers' compensation, such losses are excluded from the underlying policy.

Some advantages of bifurcation were identified. It is widely agreed that there is little NBCR coverage available at present in the private market. Insurers have a better understanding of potential levels of loss from a conventional attack, and bifurcation could perhaps better protect taxpayers from loss by increasing industry responsibility for conventional attacks.

However, a number of disadvantages of bifurcation were identified. In the view of some, bifurcation needlessly complicates a program that is doing well. It also creates some definitional challenges because it will not likely always be easy to categorize an attack as NBCR or conventional. For example, there are some complex "conventional" attacks, like swarm attacks or the 9/11 attacks, that perhaps should not be considered conventional. If there is fuzziness about whether an event is or is not NBCR, insurers may have to make decisions about whether to provide coverage assuming that all losses will be considered conventional—so industry might decide to reduce available capacity. Another downside of bifurcation is that there might be political pressure to classify an event as NBCR, reducing the private-sector payment share from what would be the case for a conventional attack.

It was pointed out that it might make more sense to distinguish between attacks based on the size of the attack than on the type of attack. Some NBCR attacks are not overly expensive—for example, the anthrax attack on the Senate office building in 2001 cost about $27 million, according to the U.S. Environmental Protection Agency. The program trigger would rule out TRIA coverage for such an attack.

Another participant suggested that the program be bifurcated by line (such as workers' compensation versus other lines) to take into account the special characteristics of the workers' compensation market. Doing so might make more sense than bifurcating by attack type.

It was observed that, outside workers' compensation, there is very little insurance coverage for NBCR events. There would likely be considerable political pressure to provide government compensation for uncovered losses after an NBCR event, creating financial exposure for taxpayers. Can anything be done about this? The reaction of one participant was that there is really no way for the insurance industry to cover NBCR events. Given the unpredictable and potentially enormous losses for these events, there would be a major response by the regulators and the credit-rating agencies if insurers started covering NBCR. This response would then make it difficult for insurers to keep covering NBCR. As one participant noted, discussion of nuclear attacks moves the debate into the world of war insurance. It would therefore be useful to review past approaches to war insurance.[6]

Increasing the Aggregate Industry Retention

If insured losses are large enough after a terrorist attack, the federal government will reimburse insurers for some of the payments made to policyholders. TRIA requires insurers to

[6] Economist Jack Hirschlifer wrote about war insurance in the 1950s.

pay back the federal government under certain circumstances, and insurers are authorized to impose a surcharge on commercial policyholders nationwide to fund these repayments. Repayment is required until total outlays by insurers (net of government reimbursement) plus policyholder surcharges are at least the lesser of total insured loss or $27.5 billion. This so-called aggregate industry retention has been set at $27.5 billion for many years. There is a proposal to increase it to $37.5 billion.

Several participants commented that increasing the aggregate industry retention from $27.5 billion to $35.5 billion would probably not fundamentally alter the functioning of the program. However, one panelist believed that an arbitrary increase in aggregate industry retention would be imprudent because there could be unintended consequences. The importance of keeping the policy surcharges nominal (pointing out that even a 2 to 3 percent surcharge can be burdensome) was noted, as well as the importance of recouping funds only gradually after a large terrorist attack. An overly rapid recoupment could hinder economic recovery. It was also pointed out that insurers are the ones who actually collect the surcharges, and even though they are passed directly to the federal government, insurers will bear the brunt of policyholder complaints.

One participant noted that there has not been much discussion in the policy arena about the fairness of the TRIA recoupment process. Commercial policyholders who do not buy terrorism coverage are required to pay the surcharges, as well as policyholders in those parts of the county with low terrorism risk. Also, the TRIA legislation directs the federal government to recoup 133 percent of federal payment to insurers under the TRIA program (up to the industry aggregate retention). The rationale for this factor was to account for lost tax revenue because the policy surcharges are tax deductible. Some TRIA reforms propose to increase the factor to 150 percent, but there is no obvious rationale for a recoupment percentage at this level.

Charging an Up-Front Premium for TRIA

One of the conference participants asked about the pros and cons of charging an up-front premium for TRIA coverage, noting that other countries do so. Such an approach could be an alternative to some of the options discussed above for scaling back the program. The premium could be used to finance government payment through the program, reducing the potential burden on taxpayers. Other conference participants noted that this approach was considered when TRIA was first debated back in 2002, but pointed out that it was rejected—partly due to concerns that charging a premium would be inconsistent with the intent to keep the program temporary. A number of cons of an up-front premium were identified:

- The need to agree on where the revenue would be parked and whether it could be walled off from other uses.
- Absence of a method to set the premium. A 10-percent surcharge is common in other countries, but there is little basis for this percentage.

- An up-front surcharge would increase the price of terrorism insurance to policyholders, decreasing take-up.

Many participants seemed to believe that the ship had sailed on this option.

Capital Reserving for Terrorism Events

Proposals have been made to require insurers to put up to 50 percent of the premiums received for terrorism coverage into a separate account that could only be used to pay claims arising from terrorist attacks. Some policymakers find this attractive because it would mean that funds would available to pay claims, reducing the risk that insurers would not be able to make payments. It also paves the way for pre-event reserving for other types of disasters (e.g., wind).

It was noted that the insurance industry sees several problems with this proposal. It would require major changes in tax and accounting standards (e.g., reserve funds would need to be tax deductible against earnings). The proposal would also probably increase the cost of coverage for policyholders, because insurers would have to make up the lost returns to shareholders. The result may be a reduced take-up rate, which might increase post-event government payments for disaster recovery. It was also observed that such a capital reserve fund would be a competitor to private reinsurance, the implications of which would need to be investigated.

5. Second Panel Discussion: What is the Endgame for TRIA?

TRIA has been reauthorized twice, and a third reauthorization in 2014 appears likely. This panel considered whether we should continue to have periodic reauthorization debates or move either to make the program permanent or eliminate it.

Status of the Terrorism Threat

An important question is whether TRIA is still necessary 13 years after 9/11. Analyses by RAND and the Heritage Foundation indicate that terrorism is still a very real threat. For example, RAND analysis indicates that only 31 of 158 sovereign nations have not had a terrorist attack since 9/11. In addition, the threat of terrorism is not just a problem for big cities. One panelist highlighted a 2010 Heritage analysis that found that one-third of foiled terrorist incidents in the United States since 9/11 have been outside large cities.[7]

Economic Effects of Uncertainty About the Availability of Terrorism Insurance

Most property owners' losses from the 9/11 attacks were covered by insurance. However, after 9/11, commercial policyholders found that terrorism coverage limits had decreased and costs had increased substantially compared to the situation prior to 9/11. Turning to the situation today, lenders have indicated that they will require current and future borrowers to have terrorism insurance even if TRIA is not extended. A panelist reported that Fitch has indicated that it will or may decline to rate commercial mortgage-backed securities that have inadequate terrorism insurance coverage, and that S&P has indicated that not extending or cutting back on terrorism insurance could result in technical default or other downgrades to commercial mortgage-backed security portfolios. One panelist noted that large real estate developers typically underwrite an investment for a 7–10 year period. It would thus be beneficial to be confident that terrorism insurance will be available for that duration, which will not necessarily be the case under a temporary program.

[7] Jena Baker McNeill, James Jay Carafano, and Jessica Zuckerman, *30 Terrorist Plots Foiled: How the System Worked*, available at http://www.heritage.org/research/reports/2010/04/30-terrorist-plots-foiled-how-the-system-worked

Capability of the Private Market in the Absence of Government Involvement

A central question in the debate about the renewal of TRIA is whether a private market for terrorism insurance would exist and be robust if the government allowed TRIA to expire. Participants emphasized that this question is thus far unresolved—some say yes, some say no. One panelist argued that until this issue is resolved more definitively, it is better to err of the side of protection rather than experiment. He claimed that terrorism risk modeling is relatively good when considering the consequences of attacks, but poor when it comes to the probabilities of attacks. This modeling limitation is a fundamental impediment to the viability of the private terrorism risk insurance market that stems from the fact that terrorists are adaptive and their ideologies evolve. In terms of insurability, terrorism has similarities to war, and is perhaps even less predictable.

A panelist argued that even those normally wary of government involvement in markets understand that it is not a question of whether the government will be involved in the reimbursement of terrorism losses, but rather how—would we rather have an orderly, preplanned framework guiding the government's role through TRIA or would we want the government to develop a retrospective assistance effort after the event? According to this panelist, the best future steady-state or longer-term state for TRIA is one in which investors, lenders, and insurers have a reasonable time horizon to make long-term plans. Large investment projects require many years of stability. With time, perhaps our ability to model terrorism risk will improve, perhaps aspects of the geopolitical landscape will evolve, and perhaps other factors will lead to changes in the terrorist threat. Such changes may allow us to reevaluate our thinking about TRIA in seven to ten years.

Reinsurance Capacity for Conventional Terrorism

According to another panelist, the private market has the capacity to absorb more terrorism risk than it has currently taken on—at least for attacks using conventional weapons. Some insurers and reinsurers have confidence that they are sufficiently able to model the risk from conventional terrorism and expect to take on more of that risk over time. The situation for NBCR terrorism, however, is different. The maximum possible losses for such events dwarf those for conventional attacks, and claims development, particularly for workers' compensation, can be much more complicated and protracted than is the case for conventional terrorism. Consequently, there is little appetite for insuring or reinsuring NBCR terrorism risk.

Analyses and Actions That Can Improve the Private Market's Ability to Insure Terrorism

Another panelist focused on ways to improve the climate for terrorism insurance in the United States. According to this panelist, current terrorism models only consider about 4,000 targets around the country. We need to model more targets, particularly soft targets like hotels and convention centers. We also need to more accurately model the occupancy of targets—models often neglect non-employees, which is a major shortcoming for hotels, malls, and many other types of targets. Models also do not necessarily consider losses in all of the insurance lines eligible under TRIA. Most models consider property and workers' compensation, but many neglect liability, business interruption, and other lines.

This panelist argued that we also need to develop more private market capacity. Data suggest that currently dedicated capital could be exhausted in very large attacks. This increase must be done slowly and monitored carefully to avoid downgrades to insurers' credit ratings. Alternative risk-sharing mechanisms (such as catastrophe bonds) are an option, though there is little interest in covering NBCR risks.

Separate Treatment of Workers' Compensation Under TRIA

Participants noted that, beyond the possibility of losses from an NBCR attack being more than a factor of ten greater than losses from conventional attacks, one of the major impediments to providing NBCR coverage is complications with workers' compensation coverage. First, workers' compensation losses are expected to make up a much larger fraction of the total loss in an NBCR attack than in a conventional attack. In addition, workers' compensation claims development in NBCR attacks is expected to be complex and protracted. Because of unclear, extended, and latent health effects of NBCR attacks, establishing what the losses actually are could take substantial effort and go on for many years or even decades after an attack. For these reasons, workers' compensation coverage may warrant separate consideration under future revisions of TRIA.

Appendix. Conference Agenda

The Future of the Terrorism Risk Insurance Act:
Expiration, Reauthorization, Modification

June 10, 2014

The Willard InterContinental
1401 Pennsylvania Avenue NW, Washington, D.C.

11:15 a.m. **Registration**

11:30 a.m. **Introduction and Welcoming Remarks**
Lloyd Dixon, Director, RAND Center for Catastrophic Risk Management and Compensation

11:45 a.m. **RAND Research: Potential Implications of TRIA's Sunset for National Security, Federal Spending, and Workers' Compensation Insurance Markets**
Michael Dworsky, Associate Economist, RAND Corporation
Tom LaTourrette, Senior Physical Scientist, RAND Corporation
Henry Willis, Director, RAND Homeland Security and Defense Center

1:00 p.m. **Lunch with Keynote Speaker**
Brian Michael Jenkins, terrorism expert and special advisor to the president of the RAND Corporation

2:15 p.m. **Modifications to TRIA: What Are the Pros and Cons?**
Modifications proposed in the House outline and Senate version of the TRIA reauthorization bill will be discussed. How will various modifications affect the price, availability, and take-up rate for terrorism insurance? How will reinsurance markets respond to changes that scale back the program?

Moderator: Lloyd Dixon, RAND Corporation

Panelists:
Thomas M. Glassic, Vice President, Policy and Government Relations, Property Casualty Insurers Association of America
Laura D. Haines, Vice President, Federal Affairs, The Hartford
Jason Jaeger, Head Underwriter for Treaty Property, Swiss Re

Erwann Michel-Kerjan, Executive Director, Wharton Risk Management and Decision Processes Center
Pete Thomas, Chief Risk Officer, Willis Re

3:30 p.m. **Refreshment Break**

3:45 p.m. **What Is the Endgame for TRIA?**
TRIA has been reauthorized twice, and a third reauthorization in 2014 appears likely. How will TRIA policy play out? Should we continue to have periodic reauthorization debates or should we be moving either to make the program permanent or to eliminate it?

Moderator: Tom LaTourrette, RAND Corporation

Panelists:
Angela A'Zary, Vice President Corporate Risk, Renaissance Re
Emil Metropoulos, Senior Vice President – Workers Compensation & Casualty Specialty Practices, Guy Carpenter & Co. LLC
Tim Pawlenty, President and Chief Executive Officer, Financial Services Roundtable
W. Edward Walter, President, Chief Executive Officer and Director, Host Hotels & Resorts, Inc.
J. Stephen Zielezienski, Senior Vice President and General Counsel, American Insurance Association

5:00 p.m. **Closing Remarks**
Kenneth Feinberg, Advisory Board Chairman, RAND Center for Catastrophic Risk Management and Compensation

5:15 p.m. **Adjourn**

5:30 p.m. **Reception**