

Terrorism Risk Insurance: Issue Analysis and Overview of Current Program

Baird Webel

Specialist in Financial Economics

March 4, 2014

Congressional Research Service

7-5700 www.crs.gov R42716

Summary

Prior to the September 11, 2001, terrorist attacks, insurance coverage for losses from such attacks was normally included in general insurance policies without specific cost to the policyholders. Following the attacks, such coverage became very expensive if insurers offered it at all. Because insurance is required for a variety of economic transactions, it was feared that the absence of insurance against terrorism loss would have a wider economic impact. Terrorism insurance was largely unavailable for most of 2002, and some have argued that this adversely affected parts of the economy.

Congress responded to the disruption in the terrorism insurance market by passing the Terrorism Risk Insurance Act of 2002 (TRIA; P.L. 107-297, 116 Stat. 2322). TRIA created a temporary three-year Terrorism Insurance Program in which the government would share some of the losses with private insurers should a foreign terrorist attack occur. This program was extended in 2005 (P.L. 109-144, 119 Stat. 2660) and 2007 (P.L. 110-160, 121 Stat. 1839). The amount of government loss sharing depends on the size of the insured loss. In general terms, for a relatively small loss, private industry covers the entire loss. For a medium-sized loss, the federal role is to spread the loss over time and over the entire insurance industry; the government assists insurers initially but then recoups the payments through a broad levy on insurance policies afterwards. For a large loss, the federal government would cover most of the losses, although recoupment is possible in these circumstances as well. Insurers are required to make terrorism coverage available to commercial policyholders, but TRIA does not require policyholders to purchase the coverage. The prospective government share of losses has been reduced over time compared with the initial act, but the 2007 reauthorization expanded the program to cover losses from acts of domestic terrorism. The TRIA program is currently slated to expire at the end of 2014.

The specifics of the current program are as follows: (1) terrorist act must cause \$5 million in insured losses to be certified for TRIA coverage; (2) the aggregate insured losses from a certified act of terrorism must be \$100 million in a year for the government coverage to begin; and (3) an individual insurer must meet a deductible of 20% of its annual premiums for the government coverage to begin. Once these thresholds are passed, the government covers 85% of insured losses due to terrorism. If the insured losses are under \$27.5 billion, the Secretary of the Treasury is required to recoup 133% of government outlays. As insured losses rise above \$27.5 billion, the Secretary is required to recoup a progressively reduced amount of the outlays. At some high insured loss level, which will depend on the exact distribution of losses, the Secretary would no longer be required to recoup outlays, but would retain the discretionary authority to do so.

Since TRIA's passage, the private industry's willingness and ability to cover terrorism risk have increased. According to industry surveys, prices for terrorism coverage have generally trended downward, and approximately 60% of commercial policyholders have purchased coverage over the past few years. This relative market calm has been under the umbrella of TRIA coverage, and it is unclear how the insurance market would react to the expiration of the federal program.

In the 113th Congress, three bills, H.R. 508, H.R. 1945, and H.R. 2146, have been introduced to extend the TRIA program. H.R. 508 would extend the program's expiration date five years, until 2019. H.R. 1945 would extend the program 10 years, until 2024, and add the Secretary of Homeland Security as the lead authority for certifying an act of terrorism. H.R. 2146 would extend the program's expiration date 10 years, until 2024.

Contents

Introduction	1
TRIA in the 113 th Congress	2
The Terrorism Risk Insurance Act of 2002 Reauthorization Act of 2013 (H.R. 508)	
The Fostering Resilience to Terrorism Act of 2013 (H.R. 1945)	
Terrorism Risk Insurance Program Reauthorization Act of 2013 (H.R. 2146)	
Goals and Specifics of the Current TRIA Program	
Federal Government Sharing of Terrorism Losses	
Initial Loss Sharing	
Recoupment Provisions	
Program Administration	6
TRIA Consumer Protections	
Preservation of State Insurance Regulation	
Coverage for Nuclear, Chemical, Biological, and Radiological Terrorism	
Background on Terrorism Insurance	
Insurability of Terrorism Risk	
International Experience with Terrorism Risk Insurance	
Previous U.S. Experience with "Uninsurable" Risks	
Post-9/11 and Pre-TRIA	
After TRIA	
Evolution of Terrorism Risk Insurance Laws	
Figures	
Figure 1. Initial Loss Sharing Under Current TRIA Program	5
Tables	
Table 1. Side-by-Side of Terrorism Risk Insurance Laws	12
Table A-1. Example of TRIA Recoupment Calculations	
Appendixes	
Appendix. Calculation of TRIA Recoupment Amounts	15
Contacts	
Author Contact Information	16

Introduction

Prior to the September 2001 terrorist attacks on the United States, insurers generally did not exclude or separately charge for coverage of terrorism risks. The events of September 11, 2001, changed this as insurers realized the extent of possible terrorism losses. Estimates of insured losses from the 9/11 attacks are over \$40 billion in current dollars, the largest insured losses from a non-natural disaster on record. These losses were concentrated in business interruption insurance (34% of the losses), property insurance (30%), and liability insurance (23%).

Although primary insurance companies, those who actually sell and service the insurance policies bought by consumers, suffered losses from the terrorist attacks, the heaviest insured losses were absorbed by foreign and domestic reinsurers—the insurers of insurance companies. Because of the lack of public data on, or modeling of, the scope and nature of the terrorism risk, reinsurers felt unable to accurately price for such risks and largely withdrew from the market for terrorism risk insurance in the months following September 11, 2001. Once reinsurers stopped offering coverage for terrorism risk, primary insurers, suffering equally from a lack of public data and models, also withdrew, or tried to withdraw, from the market. In most states, state regulators must approve policy form changes. Most state regulators agreed to insurer requests to exclude terrorism risks from commercial policies, just as these policies had long excluded war risks. Terrorism risk insurance was soon unavailable or extremely expensive, and many businesses were no longer able to purchase insurance that would protect them in future terrorist attacks. Although the evidence is largely anecdotal, some were concerned that the lack of coverage posed a threat of serious harm to the real estate, transportation, construction, energy, and utility sectors, in turn threatening the broader economy.

In November 2002, Congress responded to the fears of economic damage due to the absence of commercially available coverage for terrorism with passage of the Terrorism Risk Insurance Act² (TRIA). TRIA created a three-year Terrorism Risk Insurance Program to provide a government reinsurance backstop in the case of terrorist attack. The TRIA program was amended and extended in 2005³ and 2007. Following the 2007 amendments, the TRIA program is set to expire at the end of 2014. (A side-by-side of the original law and the two reauthorization acts can be found in **Table 1**.)

The executive branch has been skeptical about the TRIA program in the past. Bills to expand TRIA were resisted by then-President George W. Bush's Administration,⁵ and previous presidential budgets under President Obama called for changes in the program that would have had the effect of scaling back the TRIA coverage.⁶ Congress declined to act on these budgetary

¹ Insurance Information Institute, "LOSS DISTRIBUTION BY TYPE OF INSURANCE FROM SEPTEMBER 11 TERRORIST ATTACK," May 2013, available at http://www.iii.org/issues_updates/terrorism-risk-and-insurance.html.

² P.L. 107-297, 116 Stat. 2322, codified at 15 U.S.C. §6701 note. For more information, see CRS Report RS21444, *The Terrorism Risk Insurance Act of 2002: A Summary of Provisions*, by Baird Webel.

³ P.L. 109-144, 119 Stat. 2660. For more information, see CRS Report RL33177, *Terrorism Risk Insurance Legislation in 2005: Issue Summary and Side-by-Side*, by Baird Webel.

⁴ P.L. 110-160, 121 Stat 1839. For more information, see CRS Report RL34219, *Terrorism Risk Insurance Legislation in 2007: Issue Summary and Side-by-Side*, by Baird Webel.

⁵ See, for example, the Statement of Administration Policy on H.R. 2761 dated December 11, 2007, available at http://www.whitehouse.gov/sites/default/files/omb/legislative/sap/110-1/hr2761sap-h.pdf.

⁶ See, for example, Office of Management and Budget, *Analytical Perspectives*, Budget of the United States, Fiscal (continued...)

proposals at the time and no such legislative proposals were contained in the President's FY2013 or FY2014 budget proposal. The insurance industry largely continues to support TRIA, as do commercial insurance consumers in the real estate and other industries that have formed a "Coalition to Insure Against Terrorism" (CIAT). Not all insurance consumers support renewal of TRIA, however, with the Consumer Federation of America questioning the need for the program.

Although the April 2013 bombing in Boston was termed an "act of terror," by the President, ¹⁰ whether the bombing is considered as such under TRIA depends on a certification by the Secretary of the Treasury in conjunction with the Attorney General and the Secretary of State. As of September 9, 2013, such a certification had not been issued. The Massachusetts Department of Insurance has collected estimates of insured losses from the Boston bombing. The losses from TRIA covered lines of insurance appear to be under the \$5 million threshold established in the act. ¹¹

TRIA in the 113th Congress

The Terrorism Risk Insurance Act of 2002 Reauthorization Act of 2013 (H.R. 508)

Representative Michael Grimm along with nine cosponsors introduced H.R. 508 on February 5, 2013. The bill is a reauthorization of the existing TRIA program that would extend the program five years, until the end of 2019. It would also extend the deadline for mandatory recoupment seven years, until September 30, 2024. The bill has been referred to the House Committee on Financial Services.

The Fostering Resilience to Terrorism Act of 2013 (H.R. 1945)

Representative Bennie Thompson along with one cosponsor introduced H.R. 1945 on May 9, 2013. The bill would extend the expiration date of the program 10 years, until the end of 2024, and would extend the deadline for mandatory recoupment seven years, until September 30, 2024. It would also add the Secretary of Homeland Security as the lead authority responsible for certifying an act of terrorism and require the Secretary to provide information and reports on terrorism risks and best practices to foster resilience in the face of terrorism. The Secretary of the

_

Year 2011, p. 184, http://www.gpo.gov/fdsys/pkg/BUDGET-2011-PER/pdf/BUDGET-2011-PER.pdf.

^{(...}continued)

⁷ See, for example, American Insurance Association, "AIA Statement On Introduction Of TRIA Legislation," press release, February 5, 2013, http://www.aiadc.org/aiadotnet/docHandler.aspx?DocID=355930.

⁸ See the CIAT website at http://www.insureagainstterrorism.org.

⁹ Consumer Federation of America, "Growing Insurer Surplus Calls into Question Industry Need for Congressional Renewal of Terrorism Insurance," May 8, 2013, available at http://consumerfed.org/news/666.

 $^{^{10}}$ The White House, "Statement by the President," press release, April 16, 2013, http://www.whitehouse.gov/the-press-office/2013/04/16/statement-president.

¹¹ According to information provided by the Massachusetts Department of Insurance to CRS, the incurred losses on TRIA-eligible lines of insurance totaled approximately \$2.6 million as of August 2013, with \$1.2 million of this having been paid out. Estimated health insurance losses totaled more than \$20 million; health insurance, however, is not covered under TRIA.

Treasury would remain in the certification process but as a concurring party, not the lead authority, and the program in general would remain under the authority of the Treasury. H.R. 1945 has been referred to the House Committee on Financial Services and the House Committee on Homeland Security.

Terrorism Risk Insurance Program Reauthorization Act of 2013 (H.R. 2146)

Representative Michael Capuano along with 20 cosponsors introduced H.R. 2146 on May 23, 2013. The bill is a reauthorization of the existing TRIA program that would extend the program 10 years, until the end of 2024, as well as extending the deadline for mandatory recoupment 10 years, until September 30, 2027. In addition, the President's Working Group on Financial Markets is to continue filing reports on the market conditions, with reports required in 2017, 2020, and 2023. The bill has been referred to the House Committee on Financial Services.

Congressional Hearings

The House Committee on Financial Services and the Senate Committee on Banking, Housing, and Urban Affairs have held hearings on terrorism insurance including the following:

- "Reauthorizing TRIA: The State of the Terrorism Risk Insurance Market, Part II," Senate Committee on Banking, Housing, and Urban Affairs, February 25, 2014. 12
- "The Future of Terrorism Insurance: Fostering Private Market Innovation to Limit Taxpayer Exposure," House Financial Services' Subcommittee on Housing and Insurance, November 13, 2013.¹³
- "Reauthorizing TRIA: The State of the Terrorism Risk Insurance Market," Senate Committee on Banking, Housing, and Urban Affairs, September 25, 2013. 14
- "The Terrorism Risk Insurance Act of 2002," House Committee on Financial Services, September 19, 2013. 15

Goals and Specifics of the Current TRIA Program

The original TRIA legislation's stated goals were to (1) create a temporary federal program of shared public and private compensation for insured terrorism losses to allow the private market to stabilize; (2) protect consumers by ensuring the availability and affordability of insurance for terrorism risks; and (3) preserve state regulation of insurance. Although Congress has amended specific aspects of the original act, the general operation of the program largely follows the

¹² See http://www.banking.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=08e1735c-d2be-4260-a1dc-12975ab9397f.

¹³ See http://financialservices.house.gov/calendar/eventsingle.aspx?EventID=360497.

¹⁴ See http://www.banking.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=b9077dbb-2ae2-425a-89dd-793fcb049190.

¹⁵ See http://financialservices.house.gov/calendar/eventsingle.aspx?EventID=349518.

original statute. The changes to the program have largely reduced the government coverage for terrorism losses, except that the 2007 amendments expanded coverage to losses due to domestic terrorism, rather than limiting the program to foreign terrorism.

Federal Government Sharing of Terrorism Losses

To meet the *first* goal, the TRIA program creates a mechanism through which the federal government could share insured commercial property/casualty¹⁶ losses with the private insurance market. The role of federal loss sharing depends on the size of the insured loss. For a relatively small loss, there is no federal sharing. For a medium-sized loss, the federal role is to spread the loss over time and over the entire insurance industry, providing assistance up front but then recouping the payments through a broad levy on insurance policies afterwards. For a large loss, the federal government is to pay most of the losses, although recoupment is possible in these circumstances as well.

The precise criteria under the current TRIA program are as follows:

- 1. An individual act of terrorism must be certified jointly by the Secretary of the Treasury, Secretary of State, and Attorney General; losses must exceed \$5 million in the United States or to U.S. air carriers or sea vessels for an act of terrorism to be certified.
- 2. The federal government shares in an insurer's losses due to a certified act of terrorism only if "the aggregate industry insured losses resulting from such certified act of terrorism" exceed \$100 million.
- 3. The federal program covers only commercial property and casualty insurance, and excludes by statute several specific lines of insurance. ¹⁸
- 4. Each insurer is responsible for paying out a certain amount in claims—known as its deductible—before receiving federal coverage. An insurer's deductible is proportionate to its size, equaling 20% of an insurer's annual direct earned premiums the commercial property/casualty lines of insurance specified in TRIA.
- 5. Once the \$100 million aggregate loss threshold and 20% deductible are passed, the federal government is to cover 85% of each insurer's losses above its deductible until the amount of losses totals \$100 billion.
- 6. After \$100 billion in aggregate losses, there is no federal government coverage and no requirement that insurers provide coverage.
- 7. In the years following the federal sharing of insurer losses, but prior to September 30, 2017, the Secretary of the Treasury is required to establish

¹⁶ Commercial insurance is generally insurance purchased by businesses in contrast to personal lines of insurance, which is purchased by individuals. This means damage to individual homes and autos would not be covered under the TRIA program. Property/casualty insurance includes most lines of insurance except for life insurance and health insurance.

¹⁷ 15 U.S.C. §6701 note, Section 103(e)(1)(B).

¹⁸ Named lines of insurance that are not covered are federal crop insurance, private crop or livestock insurance, private mortgage insurance, title insurance, financial guaranty insurance of single-line guaranty insurers, medical malpractice, flood insurance, reinsurance, and all life insurance products.

surcharges on property/casualty insurance policies to recoup 133% of some or all of the outlays to insurers under the program. If losses are very high, the Secretary has the authority to assess surcharges, but is not required to do so. (See "Recoupment Provisions" below for more detail.)

Initial Loss Sharing

The initial loss sharing under TRIA can be seen in **Figure 1** below, adapted from a report by the Congressional Budget Office (CBO). The exact amount of the 20% deductible at which TRIA coverage would begin depends on how the losses are distributed among insurance companies. In the aggregate, 20% of the direct-earned premiums for all of the property/casualty lines specified in TRIA totaled approximately \$36 billion according to 2012 data supplied by the National Association of Insurance Commissioners (NAIC). TRIA coverage is likely, however, to begin under this amount as the losses from an attack are unlikely to be equally distributed among insurance companies.

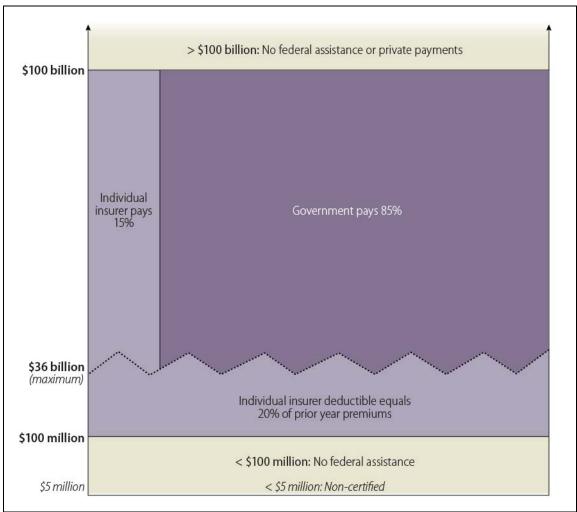


Figure 1. Initial Loss Sharing Under Current TRIA Program

Source: Congressional Research Service, adapted from Congressional Budget Office, Federal Reinsurance for Terrorism Risks: Issues in Reauthorization, August 1, 2007, p. 12.

Note: Aggregate of all individual insurer deductibles totaled approximately \$36 billion in 2012, according to the NAIC data and CRS calculations.

Recoupment Provisions

The precise amount to be recouped is determined by the interplay between a number of different factors in the law and in the insurance marketplace. The general result of the recoupment provisions is that, for attacks that result in under \$27.5 billion¹⁹ in insured losses, the Treasury Secretary is required to recoup 133% of the government outlays through surcharges on property/casualty insurance policies. For events with insured losses over \$27.5 billion, the Secretary has discretionary authority to recoup all the government outlays and may be required to partially recoup the government outlays depending on the size of the attacks and the amount of uncompensated losses paid by the insurance industry. (See the **Appendix** for more information on exact recoupment calculations.) The mandatory recoupment is required to occur prior to the end of FY2017. Since the latest reauthorization was passed in 2007, this requirement resulted in all recoupment being completed within a 10-year timeframe. For an attack causing large insured loses, however, this requirement could result in high surcharges being applied for a relatively short time.

Program Administration

The administration of the TRIA program was originally left generally to the Secretary of the Treasury. This was changed somewhat in the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.²⁰ This act created a new Federal Insurance Office (FIO) to be located in the Department of the Treasury. Among the duties specified for the FIO in the legislation was to assist the Secretary in the administration of the Terrorism Insurance Program.²¹

TRIA Consumer Protections

TRIA addresses the *second* goal, to protect consumers, by requiring those insurers that offer the lines of insurance covered by TRIA to make terrorism insurance available prospectively to their commercial policyholders. This coverage may not differ materially from coverage for other types of losses. Each terrorism insurance offer must reveal both the premium charged for terrorism insurance and the possible federal share of compensation. Policyholders are not, however, required to purchase coverage. If the policyholder declines to purchase terrorism coverage, its insurer can exclude terrorism losses. The law itself does not limit what insurers can charge for terrorism risk insurance, though state regulators typically have the authority under state law to modify excessive, inadequate, or unfairly discriminatory rates.

¹⁹ This \$27.5 billion figure is the current one and has been in effect since 2007. At the beginning of the TRIA program, this started at \$10 billion and increased over time.

²⁰ P.L. 111-203, 124 Stat. 1376.

²¹ Section 502 of P.L. 111-203, codified at 31 U.S.C. §313(c)(1)(D).

Preservation of State Insurance Regulation

TRIA's *third* goal, to preserve state regulation of insurance, is expressly accomplished in Section 106(a), which provides "Nothing in this title shall affect the jurisdiction or regulatory authority of the insurance commissioner [of a state]." The Section 106(a) provision has two exceptions: (1) the federal statute preempts any state definition of an "act of terrorism" in favor of the federal definition and (2) state rate and form approval laws for terrorism insurance were preempted from enactment to the end of 2003. In addition to these exceptions, Section 105 of the law also preempts state laws with respect to insurance policy exclusions for acts of terrorism.

Coverage for Nuclear, Chemical, Biological, and Radiological Terrorism

A terrorist attack with some form of nuclear, chemical, biological, or radiological (NCBR)²² weapon would often be considered the most likely type of attack causing large scale losses. The current TRIA statute does not specifically include or exclude NCBR events; thus, the TRIA program in general would cover insured losses from terrorist actions due to NCBR as it would for an attack by conventional means. The term *insured losses*, however, is a meaningful distinction. Most insurance policies that would fall under the TRIA umbrella include exclusions that would likely limit insurer coverage of an NCBR event, whether it was due to terrorism or to some sort of accident, although these exclusions have never been legally tested in the United States after a terrorist event.²³ If these exclusions are invoked and do indeed limit the insurer losses due to NCBR terrorism, they would also limit the TRIA coverage of such losses. Language that would have specifically extended TRIA coverage to NCBR events was offered in the past,²⁴ but was not included in legislation as enacted. In 2007, the Government Accountability Office (GAO) was directed to study the issue and a GAO report was issued in 2008.²⁵

Background on Terrorism Insurance

Insurability of Terrorism Risk

Stripped to its most basic elements, insurance is a fairly straightforward operation. An insurer agrees to assume an indefinite future risk in exchange for a definite current premium from a consumer. The insurer pools a large number of risks such that at any given point in time, the

²² There is some variance in the acronym used for such attacks. The U.S. Department of Defense, for example, uses "CBRN," rather than NCBR, in its *Dictionary of Military and Associated Terms*; see p. 86 at http://www.scribd.com/doc/25603718/The-DOD-Lexicon-JP1-02.

²³ It should be noted that insurers might have attempted to exclude the September 11, 2001, losses under existing war risk exclusions, but did not generally attempt to do so.

²⁴ See, for example, H.R. 2761 (110th Congress) as passed by the House on September 19, 2007, and H.Rept. 110-318, available at http://www.gpo.gov/fdsys/pkg/CRPT-110hrpt318/pdf/CRPT-110hrpt318.pdf.

²⁵ U.S. Government Accountability Office, *TERRORISM INSURANCE: Status of Coverage Availability for Attacks Involving Nuclear, Biological, Chemical, or Radiological Weapons*, GAO-09-39, December 12, 2008, at http://gao.gov/products/GAO-09-39.

ongoing losses will not be larger than the current premiums being paid, plus the residual amount of past premiums that the insurer retains and invests, plus, in a last resort, any borrowing against future profits if this is possible. For the insurer to operate successfully and avoid bankruptcy, it is critical to accurately estimate the probability of a loss and the severity of that loss so that a sufficient premium can be charged. Insurers generally depend upon huge databases of past loss information in setting these rates. Everyday occurrences, such as automobile accidents or natural deaths, can be estimated with great accuracy. Extraordinary events, such as large hurricanes, are more difficult, but insurers have many years of weather data, coupled with sophisticated computer models, with which to make predictions.

Terrorism risk is seen by many to be so fundamentally different from other risks, making it essentially uninsurable by the private insurance market; thus, requiring a government solution. The argument that terrorism risk is uninsurable typically focuses on lack of public data about both the probability and severity of terrorist acts. The reason for the lack of historical data would generally be seen as a good thing—very few terrorist attacks are attempted and fewer have succeeded. This, however, does not assuage the fiduciary duty of an insurance company president not to put a company at risk by insuring against an event that could bankrupt the firm. As a replacement for large amounts of historical data, insurers turn to various forms of models similar to those used to assess future hurricane losses. Even the best model, however, can only partly replace good data, and terrorism models are still relatively new compared with hurricane models.

One prominent insurance textbook identifies four ideal elements of an insurable risk: (1) a sufficiently large number of insureds to make losses reasonably predictable; (2) losses must be definite and measurable; (3) losses must be fortuitous or accidental; and (4) losses must not be catastrophic (i.e., it must be unlikely to produce losses to a large percentage of the risks at the same time). Terrorism risk in the United States would appear to fail the first criterion. It also likely fails the third due to the malevolent human actors behind terrorist attacks, whose motives, means, and targets of attack are constantly in flux. Whether it fails the fourth criterion is largely decided by the underwriting actions of insurers themselves (i.e., whether the insurers insure a large number of risks in a single geographic area that would be affected by a terrorist strike). Unsurprisingly, insurers generally have sought to limit their exposures in particular geographic locations with a conceptually higher risk for terrorist attacks, making terrorism insurance more difficult to find in those areas.

International Experience with Terrorism Risk Insurance

Although the U.S. experience with terrorism is relatively limited, other countries have dealt with the issue more extensively and have developed their own responses to the challenges presented by terrorism risk. Spain, which has seen significant terrorist activity by Basque separatist movements, insures against acts of terrorism via a broader government-owned reinsurer that has provided coverage for catastrophes since 1954. The United Kingdom, responding to the Irish Republican Army attacks in the 1980s, created Pool Re, a privately owned mutual insurance company with government backing, specifically to insure terrorism risk. In the aftermath of the September 11, 2001, attacks, many foreign countries reassessed their terrorism risk and created a variety of approaches to deal with the risk. The UK greatly expanded Pool Re, whereas Germany

²⁶ Emmett J. Vaughan and Therese Vaughan, *Fundamentals of Risk and Insurance* (Hoboken, NJ: John Wiley & Sons, 2003), p. 41.

created a private insurer with government backing to offer terrorism insurance policies. Germany's plan, like TRIA in the United States, was created as a temporary measure. It has been extended since its inception and it is now set to expire at the end of 2013.²⁷ Not all countries, however, concluded that some sort of government backing for terrorism insurance was necessary. Canada specifically considered, and rejected, creating a government program following September 11, 2001.

Previous U.S. Experience with "Uninsurable" Risks

Terrorism risk post-2001 is not the first time the United States has faced a risk perceived as uninsurable in private markets that Congress chooses to address through government action. During World War II, for example, Congress created a "war damage" insurance program, and there are current programs insuring against aviation war risk²⁸ and flood losses,²⁹ respectively.

The closest previous analog to the situation with terrorism risk may be the federal riot reinsurance program created in the late 1960s. Following large scale riots in American cities in the late 1960s, insurers generally pulled back from insuring in those markets, either adding policy exclusions to limit their exposure to damage from riots or ceasing to sell property damage insurance altogether. In response, Congress created a riot reinsurance program as part of the Housing and Urban Development Act of 1968. The federal riot reinsurance program offered reinsurance contracts similar to commercial excess reinsurance. The government agreed to cover some percentage of an insurance company's losses above a certain deductible in exchange for a premium paid by that insurance company. Private reinsurers eventually returned to the market, and the federal riot reinsurance program was terminated in 1985.

The Terrorism Insurance Market

Post-9/11 and Pre-TRIA

The September 2001 terrorist attacks, and the resulting billions of dollars in insured losses, caused significant upheaval in the insurance market. Even before the attacks, the insurance market was showing signs of a cyclical "hardening" of the market in which prices typically rise and availability is somewhat limited. The unexpectedly large losses caused by terrorist acts exacerbated this trend, especially with respect to the commercial lines of insurance most at risk for terrorism losses. Post-September 11, insurers and reinsurers started including substantial surcharges for terrorism risk, or, more commonly, they excluded coverage for terrorist attacks

²⁷ More information on foreign countries' programs can be found in pages 8-11 of the testimony of Erwann O. Michel-Kerjan before the U.S. Congress, House Committee on Financial Services, Subcommittee on Insurance, Housing and Community Opportunity, *TRIA at Ten Years: The Future of the Terrorism Risk Insurance Program*, 112th Cong., 2nd sess., September 11, 2012. See http://financialservices.house.gov/uploadedfiles/hhrg-112-ba04-wstate-emichelkerjan-20120911.pdf.

²⁸ For more information, see http://www.faa.gov/about/office_org/headquarters_offices/apl/aviation_insurance/.

²⁹ For more information, see CRS Report R40650, *National Flood Insurance Program: Background, Challenges, and Financial Status*, by Rawle O. King.

³⁰ P.L. 90-448, 82 Stat. 476. The act also created state "Fair Access to Insurance Requirements" (FAIR) plans and a Federal Crime Insurance Program.

altogether. Reinsurers could take these steps rapidly because reinsurance contracts and rates are generally unregulated. Primary insurance contracts and rates are more closely regulated by the individual states, and the exclusion of terrorism coverage for the individual purchaser of insurance required regulatory approval at the state level in most cases. States acted fairly quickly, and, by early 2002, 45 states had approved insurance policy language prepared by the Insurance Services Office, Inc. (ISO, an insurance consulting firm), excluding terrorism damage in standard commercial policies.³¹

The lack of readily available terrorism insurance caused fears of a larger economic impact, particularly on the real estate market. In most cases, lenders prefer or require that a borrower maintain insurance coverage on a property. Lack of terrorism insurance coverage could lead to defaults on existing loans and a downturn in future lending, causing economic ripple effects as buildings are not built and construction workers remain idle.

The 14-month period after the September 2001 terrorist attacks and before the November 2002 passage of TRIA provides some insight into the effects of a lack of terrorism insurance. Some examples in September 2002 include the Real Estate Round Table releasing a survey finding that "\$15.5 billion of real estate projects in 17 states were stalled or cancelled because of a continuing scarcity of terrorism insurance" and Moody's Investors Service downgrading \$4.5 billion in commercial mortgage-backed securities. This picture, however, was not uniform. For example, in July 2002, *The Wall Street Journal* reported that "despite concerns over landlords' ability to get terrorism insurance, trophy properties were in demand." The Congressional Budget Office concluded in 2005 that "[TRIA] appears to have had little measurable effect on office construction, employment in the construction industry, or the volume of commercial construction loans made by large commercial banks," but CBO also notes that variety of economic factors at the time "could be masking positive macroeconomic effects of TRIA."

After TRIA

The "make available" provisions of TRIA addressed the availability problem in the terrorism insurance market, as insurers were required by law to offer commercial terrorism coverage. There was significant uncertainty, however, as to how businesses would react, because there was no general requirement to purchase terrorism coverage³⁶ and the pricing of terrorism coverage was initially high. Initial consumer reaction to the terrorism coverage offers was relatively subdued. Marsh, Inc., a large insurance broker, reports that only 27% of their clients bought terrorism insurance in 2003. This take-up rate, however, climbed relatively quickly to 49% in 2004 and

³¹ Jeff Woodward, "The ISO Terrorism Exclusions: Background and Analysis," *IRMI Insights*, February 2002, available at http://www.irmi.com/expert/articles/2002/woodward02.aspx.

³² "Terror Insurance Drag on Real Estate Still Climbing," Real Estate Roundtable, September 19, 2003, available at http://www.rer.org/media/newsreleases/TRIA Survey 15billion Sept19 2002.cfm.

³³ "Moody's Downgrades Securities on Lack of Terrorism Insurance," *Wall Street Journal*, September 30, 2002, p. C14.

³⁴ "Office-Building Demand Rises Despite Vacancies," Wall Street Journal, July 24, 2002, p. B6.

³⁵ Congressional Budget Office, *Federal Terrorism Reinsurance: An Update*, January 2005, pp 10-11. Available at http://www.cbo.gov/publication/16210.

³⁶ Although there is no requirement in federal law to purchase terrorism coverage, businesses may be required by state law to purchase the coverage. This is particularly the case in workers compensation insurance. Market forces, such as requirements for commercial loans, may also compel purchase of terrorism coverage.

58% in 2005. Since 2005, the take-up rate has stayed near 60%, with Marsh reporting 62% in $2012.^{37}$

The price for terrorism insurance has appeared to decline over the past decade, although available pricing data are based on surveys; thus, the level of pricing may not always be comparable between sources. The 2006 and 2010 reports by the President's Working Group on Financial Markets show a high of above 7% for the median terrorism premium as a percentage of the total property premium in 2003, with a generally downward trend, and the latest values between 3% and 4%. These values were reported by Aon, another major insurance broker. While the trend may be downward, there has been significant variability, with a rate above 6% reported in the fourth quarter of 2006. There is also significant variability across industries. For example, Marsh reported rates in 2009 as high as 24% of the property premium for financial institutions and as low as 2% in the food and beverage industry. This variability dropped in the latest report by Marsh as the rates for 2012 vary from 7% in the transportation industry and the hospitality and gaming industry to 1% in the energy and mining industry.

The willingness of insurers to cover terrorism risk, as well as their financial capability to do so, has increased over the past decade. From the late 2001 and 2002 marketplace, where terrorism coverage was essentially unavailable, the latest estimates from the insurance broker Guy Carpenter are that between \$6 billion and \$8 billion in terrorism reinsurance capacity is available in the U.S. market. The combined policyholder surplus among all U.S. property/casualty insurers was \$551.8 billion at the start of 2012, up from \$293.5 billion at the start of 2002. This amount, however, backs all policies in the United States and is subject to depletion in a wide variety of events. Extreme weather losses could particularly draw capital away from the terrorism insurance market, as such weather events share some risk characteristics with large terrorist attacks.

Evolution of Terrorism Risk Insurance Laws

Table 1 presents a side-by-side comparison of the original TRIA law, along with the reauthorizing laws from 2005 and 2007.

³⁷ Marsh, Inc., 2013 Terrorism Risk Insurance Report, May 2013, p. 9.

³⁸ President's Working Group on Financial Markets, *Terrorism Risk Insurance*, September 2006, p. 37, and *Market Conditions for Terrorism Risk Insurance*, 2010, p. 30.

³⁹ Marsh, Inc., *The Marsh Report: Terrorism Risk Insurance 2010*, p. 14.

⁴⁰ Marsh, Inc., 2013 Terrorism Risk Insurance Report, May 2013, p. 12.

⁴¹ AM Best, *Best's Aggregates & Averages, Property-Casualty*, 2002 Edition, p. 2 and AM Best Statistical Study, "U.S. Property/Casualty—2011 Financial Results," March 26, 2012, p. 1.

Table I. Side-by-Side of Terrorism Risk Insurance Laws

Provision	15 U.S.C. 6701 Note (P.L. 107-297)	P.L. 109-144	P.L. 110-160 Terrorism Risk Insurance Program Reauthorization Act of 2007	
Title	Terrorism Risk Insurance Act of 2002	Terrorism Risk Insurance Extension Act of 2005		
Expiration Date	December 31, 2005 (§108(a))	December 31, 2007 (§2)	December 31, 2014 (§3(a))	
"Act of Terrorism" Definition	For an act of terrorism to be covered under TRIA, it must be a violent act committed on behalf of a foreign person or interest as part of an effort to coerce the U.S. civilian population or influence U.S. government policy. It must have resulted in damage within the United States or to a U.S. airliner or mission abroad. Terrorist act is to be certified by the Secretary of the Treasury in concurrence with the Attorney General and Secretary of State. (§102(1)(A))	No Change	Removed requirement that a covered act of terrorism be committed on behalf of a foreign person or interest. (§2)	
Limitation on Act of Terrorism Certification in Case of War	Terrorist act would not be covered in the event of a war, except for workers compensation insurance. (§102(1)(B)(I))	No Change	No Change	
Minimum Damage To Be Certified	Terrorist act must cause more than \$5 million in property and casualty insurance losses to be covered. (§102(1)(B)(ii))	No Change	No Change	
Aggregate Industry Loss Requirement/Program Trigger	No Provision	Created a "program trigger" that would prevent coverage under the program unless "aggregate industry losses resulting from such certified act of terrorism" exceed \$50 million in 2006 and \$100 million for 2007. (§6)	No Change. Program trigger remains at \$100 million until 2014. (§3 (c))	
Insurer Deductible	7% of earned premium for 2003, 10% of earned premium for 2004, 15% of earned premium for 2005. (§102(7))	Raised deductible to 17.5% for 2006 and 20% for 2007. (§3)	No Change. Deductible remains at 20% until 2014. (§3(c))	

Provision	15 U.S.C. 6701 Note (P.L. 107-297)	P.L. 109-144	P.L. 110-160	
Covered Lines of Insurance	Commercial property/ casualty insurance, including excess insurance, workers' compensation, and surety but excluding crop insurance, private mortgage insurance, title insurance, financial guaranty insurance, medical malpractice insurance, health or life insurance, flood insurance, or reinsurance. (§102(12))	Excluded commercial auto, burglary and theft, professional liability (except for directors and officers liability), and farm owners multiple peril from coverage. (§3)	No change from P.L. 109- 144	
Mandatory Availability	Every insurer must make terrorism coverage that does not differ materially from coverage applicable to losses other than terrorism. (§103(c))	rorism coverage that availability extended es not differ materially through 2007. (§2(b)) m coverage applicable to ses other than		
Insured Shared Loss Compensation	Federal share of losses will be 90% for insured losses that exceed the applicable insurer deductible. (§103(e))	0% for insured losses losses to 85% for 2007. (§4) exceed the applicable er deductible.		
Cap on Annual Liability	Federal share of No Change compensation paid under the program will not exceed \$100 million and insurers are not liable for any portion of losses that exceed \$100 million unless Congress acts otherwise to cover these losses. (§103(e))		Removed the possibility that a future Congress could require insurers to cover some share of losses above \$100,000,000,000 if the insurer has met its individual deductible. Requires insurers to clearly disclose this to policy holders. (§4(a) and §4(d))	
Payment Procedures if Losses Exceed \$100,000,000,000	After notice by the Secretary of the Treasury, Congress determines the procedures for payments if losses exceed \$100 billion. (§103(e)(3))	No Change	Required Secretary of the Treasury to publish regulations within 240 days of passage regarding payments if losses exceed \$100 billion. (§4(c))	
Aggregate Retention Amount Maximum	\$10 billion for 2002-2003, \$12.5 billion for 2004, \$15 billion for 2005 (§103(6))	Raises amount to \$25 billion for 2006 and \$27.5 billion for 2007. (§5)	No Change. Aggregate retention remains at \$27.5 billion through 2014.	

Provision	15 U.S.C. 6701 Note (P.L. 107-297)	P.L. 109-144	P.L. 110-160 Increases total recoupment amount to be collected by the premium surcharges to 133% of the previously defined mandatory recoupment amount. (§4(e)(1)(A))	
Mandatory Recoupment of Federal Share	If insurer losses are under the aggregate retention amount, a mandatory recoupment of the federal share of the loss will be imposed. If insurer losses are over the aggregate retention amount, such recoupment is at the discretion of the Secretary of the Treasury. (§103(e)(7))	No Change		
Recoupment Surcharge	Surcharge is limited to 3% of property-casualty insurance premium and may be adjusted by the Secretary to take into account the economic impact of the surcharge on urban commercial centers, the differential risk factors related to rural areas and smaller commercial centers, and the various exposures to terrorism risk across lines of insurance. (§103(e)(8))	No Change	Removes 3% limit for mandatory surcharge. (§4(e)(2)(A))	

Source: CRS using Public Laws obtained from the Government Printing Office through http://www.congress.gov.

Notes: Section numbers for the initial TRIA law are as codified in 15 U.S.C. §6701 note. Section numbers for P.L. 109-144 and P.L. 110-160 are from the legislation as enacted.

Appendix. Calculation of TRIA Recoupment Amounts

Table A-1 below contains illustrative examples of how the recoupment for the government portion of terrorism losses under TRIA might be calculated in the aggregate for various sizes of losses. It should be noted that the amount of the deductible in the chart is simply assumed to be 30% of the insured losses for illustrative purposes. Without knowing the actual distribution of losses due to a terrorist attack, it is impossible to know what the actual deductible will be. The conclusions of the chart with regard to recoupment, however, hold across different actual deductible amounts.

The specific provisions of the law define the "insurance marketplace aggregate retention amount" as the lesser of \$27.5 billion or the total amount of insured losses. The "mandatory recoupment amount" is defined as the difference between \$27.5 billion and the aggregate insurer losses that were not compensated for by the program (i.e., the total of the insurers' deductible and their 15% loss share). If the aggregate insured loss is less than \$27.5 billion, the law requires recoupment of 133% of the government outlays. For insured losses over \$27.5 billion, the mandatory recoupment amount decreases, thus the Secretary would be required to recoup less than 133% of the outlays. Depending on the precise deductible amounts, the uncompensated industry losses may eventually rise to be greater than \$27.5 billion, which would then mean that the mandatory recoupment provisions would not apply. The Secretary would still retain discretionary authority to apply recoupment surcharges no matter what level uncompensated losses reached.

Table A-I. Example of TRIA Recoupment Calculations

(\$ billions)

Row A	Row B	Row C	Row D	Row E	Row F	Row G	Row H
Theoretical Insured Losses	Theoretical Insurer Deductible	Insurer 15% share of Insured Losses (0.15xA)	Insurance Industry Un- compensated Iosses (B+C)	Government 85% share of Insured Losses (0.85xA)	Aggregate Retention Amount (A or \$27,500)	"Mandatory Recoupment Amount" (F-E)	Amount Required to be Recouped (Gx1.33)
\$0.I	\$0.03	\$0.01	\$0.04	\$0.06	\$0.1	\$0.06	\$0.08
\$0.5	\$0.15	\$0.05	\$0.2	\$0.3	\$0.5	\$0.3	\$0.4
\$1.0	\$0.3	\$0.1	\$0.4	\$0.6	\$1.0	\$0.6	\$0.8
\$5.0	\$1.5	\$0.5	\$2.0	\$3.0	\$5.0	\$3.0	\$4.0
\$10.0	\$3.0	\$1.1	\$4.1	\$6.0	\$10.0	\$6.0	\$7.9
\$20.0	\$6.0	\$2.1	\$8.1	\$11.9	\$20.0	\$11.9	\$15.8
\$27.5	\$8.3	\$2.9	\$11.1	\$16.4	\$27.5	\$16.4	\$21.8
\$30.0	\$9.0	\$3.2	\$12.2	\$17.9	\$27.5	\$15.4	\$20.4
\$50.0	\$15.0	\$5.3	\$20.3	\$29.8	\$27.5	\$7.3	\$9.6
\$75.0	\$22.5	\$7.9	\$30.4	\$44.6	\$27.5	\$0	\$0
\$100.0	\$30.0	\$10.5	\$40.5	\$59.5	\$27.5	\$0	\$0

Source: U.S. Treasury, TRIA Statute as amended; calculations by CRS

Notes: Totals may not sum due to rounding. For illustrative purposes, the deducible size set at 30% of the insured loss size; actual deductible will vary depending on the distribution of events.

Author Contact Information

Baird Webel Specialist in Financial Economics bwebel@crs.loc.gov, 7-0652