

A Synopsis of

***Terrorism Insurance: Status of Coverage Availability for Attacks Involving Nuclear,
Biological, Chemical, or Radiological Weapons***
(<http://www.gao.gov/new.items/d0939.pdf>)

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Terrorism Insurance: Status of Coverage Availability for Attacks Involving Nuclear, Biological, Chemical, or Radiological Weapons (<http://www.gao.gov/new.items/d0939.pdf>)

The United States Government Accountability Office (GAO) created this report in December 2008. It is a continuation of a GAO report from 2006 on the market for nuclear, biological, chemical, or radiological (NBCR) terrorist attack insurance. In this report, the GAO examines the status of NBCR terrorism coverage after the 2007 reauthorization of the Terrorism Risk Insurance Act of 2002 (also known as TRIA). TRIA was enacted shortly after the terrorist attacks on September 11, 2001 to stabilize insurance markets by ensuring future terrorism coverage for commercial property owners and increasing federal government liability for terrorism-related losses. However, due to exceptions in the original version of TRIA (especially related to NBCR) exploited by insurers, the 2007 reauthorization asked the GAO to examine NBCR coverage specifically. The report is divided into three sections corresponding to the tasks given to the GAO by the TRIA reauthorization. The first section examines the extent of NBCR coverage currently offered to commercial property owners, the second discovers factors affecting insurers' willingness to provide NBCR coverage, and the final section proposes policy options for expanding coverage of NBCR risks.

Preceding a more detailed description of GAO's analysis of NBCR coverage, it is important to understand the terms set forth by the Terrorism Risk Insurance Act (TRIA). TRIA mandates that property/casualty insurers offer coverage for terrorist attacks under the same terms and conditions as other, non-terrorism coverage. Following an attack, if aggregated industry losses exceed \$100 million, the federal government reimburses insurers for 85% of their losses in exchange for a fee or deductible equal to 20% of the value of the company's prior year's direct earned premiums. However, government reimbursement is capped at \$100 billion. One potential nuclear attack that the GAO acknowledges, for example, is the detonation of a tactical 5-kiloton nuclear bomb. Total property/casualty losses (including workers' compensation losses) for such an attack are estimated at \$584 billion. If State Farm Insurance incurred \$30 billion in losses resulting from the attack, the company would pay a deductible equal to \$9.62 billion (based

on the reported \$48.1 billion in earned property/casualty premiums in 2008¹) for reimbursement of \$25.5 billion. TRIA covers insurer losses from NBCR terrorist attacks regardless of the inclusion of NBCR coverage in the existing policy. The United States Government Accountability Office seeks to determine whether coverage under TRIA is sufficient to avoid devastating financial and economic distress in the aftermath of a neurological, biological, chemical or radiological (NBCR) terrorist attack on American soil.

The first section of GAO's analysis acknowledges the lack of NBCR terrorism coverage generally offered by commercial property/casualty insurers and reinsurers. The GAO notes that, in contrast to state-regulated insurers – such as those providing workers' compensation, life, and health coverage – commercial property/casualty policies usually exclude or greatly limit coverage for NBCR risks. This is possible through state-recognized, fairly standard policy exclusions relating to nuclear or pollution damage. GAO reports, however, that industry participants believe that neither of these exclusions would ultimately exempt insurance companies from providing NBCR coverage if they were challenged in court. The language in policies including these exclusions does not explicitly address damages due to NBCR terrorist attacks. The nuclear exclusion was created to protect insurance companies from covering damage from nuclear plants and the pollution exclusion pertains to contamination from substances such as asbestos or pesticides – it does not seem that state legislators intended these exclusions to act as a loophole for commercial property insurers looking to avoid providing NBCR coverage. Even those that do offer NBCR terrorism coverage include tight restrictions in their policies; reinsurers in Bermuda often limit coverage to losses resulting from “initial force or violence” of NBCR attack and not long-term effects such as business interruption and resulting illnesses. In addition to restrictions placed on NBCR coverage, premiums charged for that coverage are remarkably high (one commercial real estate developer reported premiums five times higher than the total property insurance costs). While state regulations require that workers' compensation, life, and

¹ The number used for direct earned property/casualty premiums in this example was taken from a State Farm Insurance press release found at http://www.statefarm.com/about/media/media_releases/sf_net_worth.asp.

health insurers provide NBCR coverage, there is virtually no viable option for consumers who wish to manage NBCR property/casualty exposure.²

In the second section of the report, the accountability office asks why commercial property/casualty insurers are unwilling to offer NBCR terrorism coverage. They found that commercial property/casualty insurers recognize uncertainty surrounding the frequency and severity of NBCR attacks, providing them almost no understanding of the potential for NBCR attacks to generate catastrophic losses. The GAO compares NBCR terrorism insurance coverage to that of automobiles. Auto insurers use extensive historical data to predict potential losses and the premiums required to cover those losses, but there is virtually no historical data demonstrating the damage caused by any form of NBCR terrorist weaponry. The range of severity (depending on type of weapon and location of attack) and low frequency associated with NBCR attacks even limit the information insurers can gain from computer models that are successfully used to break down the potential for natural catastrophes. Additionally, the GAO acknowledges that terrorists are constantly adjusting their strategies; making past attacks poor predictors of future events. Some firms have released probabilities despite difficulties surrounding calculations of NBCR potential, but the range estimates are substantial, ranging from 0.6 attacks per year to 0.125 per year. Due to the impossibility of confidently estimating the potential for an NBCR attack, insurers look to avoid offering NBCR coverage. When it is offered, they will consider only the worst-case scenario and determine premiums accordingly.

The GAO also found during this second part of its investigation, that workers' compensation, life, and health insurers face challenges in managing the risks associated with state-mandated NBCR coverage. Government regulation limits the ability of workers' compensation insurers to accurately price NBCR risks by requiring a surcharge that averages one cent per \$100 payroll.³ Many insurers reported that this surcharge is nowhere near the amount necessary for proper coverage of potential NBCR losses. Life insurers are also subject to price limitations resulting from market pressures rather than state regulation. Competition in the

² One option firms have is captive insurers. Major corporations generally establish captive insurance to self-insure a variety of risks. However, they are not widely used to cover NBCR risk usually due to lack of financial resources necessary to do so.

³ 37 states in the U.S. have adopted this form of regulation.

life insurance market makes it difficult for insurers to accurately price policies in urban areas at high risk of terrorist attacks. Furthermore, group life insurers often lack the specific data regarding employee location required to accurately price employer policies. The GAO found one more significant challenge affecting both life and health insurers. That is the inability of life and health pricing methods to account for catastrophic financial losses or mass casualties associated with NBCR attacks. Life insurance policies are priced using mortality tables and calibrated to effects of individual characteristics and health insurers use a similar pricing process. These tables and calibration techniques are not suited to account for the cataclysmic losses caused by NBCR terrorist attacks.

The third and final section of the report outlines two GAO proposals to increase the availability of insurance coverage for NBCR terrorist attacks and compares advantages and disadvantages associated with each proposal. The proposals focus on the commercial property/casualty market because such coverage is fundamentally unavailable and necessitates that the federal government assume nearly all of the financial risks. The first proposal is an amendment to TRIA that would require insurers to make NBCR-specific coverage available. Under this proposal, the federal government would compensate insurers for assuming risks created by providing NBCR coverage by setting substantially lower deductibles in return for government reimbursement.⁴ In addition to reduced deductibles, insurer's copayments would vary depending on the size of the loss; meaning that in the event of a small attack an insurer might pay 15% of losses while only paying 5% of losses from a large-scale terrorist attack. Finally under this proposal, insurers would be permitted to voluntarily reserve some of their terrorism premiums (conventional and NBCR), tax-free, in a fund maintained by the Treasury to cover TRIA deductibles and associated copayments for future terrorist attacks.

The GAO recognizes advantages and disadvantages associated with this first proposal. While industry participants and a RAND Corporation study reported benefits of the proposal such as insurers' ability to better estimate potential losses, due to an increase in the number of policies, and decreased federal

⁴ The deductible would be 3.5% of the prior year's direct earned premiums in contrast to the 20% currently specified by TRIA.

government spending and costs due to NBCR attacks, there was some negative feedback. Other industry participants reported potential disadvantages of this first proposal, including:

- Insurers could be less willing to offer property/casualty coverage or may withdraw or not-cover high-risk areas.
- Proposal could be costly to policyholders and taxpayers due to price increases resulting from uncertainty about potential risks.
- Taxpayer costs from NBCR attacks could be significant if the government is liable for a greater portion of insured losses.

Given the fairly unknown reach and severity of these disadvantages, the GAO also briefly examines other non-TRIA options for managing risks associated with NBCR terrorism. The first proposed alternative is the formation of risk pools by insurers that could allow insurers to provide a greater amount of coverage for the entire market than could be provided by any individual company. Although pooling efforts to manage NBCR do exist in the U.S. and the U.K., one study noted that if the industry as it is structured now does not have enough capital to manage the risk of an NBCR attack, then neither would an industry pool that simply reorganizes industry capital into a new structure. The second alternative is changing tax laws to permit insurers to set aside tax-deductible reserves to offset some of the losses associated with terrorist attacks. However, it is difficult to calculate how this would increase overall insurance capacity.

The second proposal made by the GAO is that the federal government completely insure losses for terrorist attacks involving NBCR materials, with insurers administering the program. Under this proposal, the federal government would serve as insurer covering all losses for NBCR attacks and charging premiums for those services. The insurance industry's role would be mostly administrative because they would have the staff, processes, and experience in place to manage tasks like collecting premiums, adjusting claims, and disbursing claims payments from the government to the policyholders. While some industry analysts say this proposal is the only way to guarantee that NBCR coverage is widely available, the high potential costs of such a program to the federal government and its unknown effect on the private market could be considerable disadvantages. Moreover, already similarly existing programs have proven costly and generally inefficient, especially due to administrative problems.

In this report, the GAO found that NBCR risks may not fully satisfy the principle of insurability, but that there are substantial financial risks associated with lack of coverage of such risks. While NBCR property/casualty coverage remains generally unavailable or impractically expensive, the GAO recognizes that the consequences of this lack of NBCR coverage could be catastrophic in the aftermath of a nuclear, biological, chemical, or radiological terrorist attack. The threat of an NBCR attack is real and continues to increase as terrorists are constantly searching for new and innovative strategies and methods. Although proposals set forth by the GAO have advantages and disadvantages, legislators must examine them closely to assess their potential for successfully increasing NBCR terrorist coverage.