



AMERICAN ACADEMY of ACTUARIES

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July 10, 2014

The Honorable Harry Reid
Majority Leader, U.S. Senate
522 Hart Senate Office Building
Washington, DC 20510

The Honorable Mitch McConnell
Minority Leader, U.S. Senate
317 Russell Senate Office Building
Washington, DC 20510

Re: S. 2244, the Terrorism Risk Insurance Program Reauthorization Act of 2014

Dear Leader Reid and Leader McConnell:

The American Academy of Actuaries'¹ Casualty Practice Council (CPC) appreciates this opportunity to provide comments concerning S. 2244, the Terrorism Risk Insurance Program Reauthorization Act of 2014.

The existing federal terrorism risk insurance framework (referred to here as TRIA) provides a necessary backstop for a peril that is very difficult to fully insure in the private market. The program assists with an orderly claims settlement process, and, for these reasons, the CPC supports the reauthorization of the TRIA program.

TRIA uses a federal government backstop to sustain private sector capacity in the market. Without such a backstop, private sector involvement in this market would not be assured. Typically, a federal government/private market partnership becomes necessary when a risk fails to meet several of the characteristics of an ideally insurable risk. In particular, an ideally insurable risk typically exhibits most of the following characteristics²:

- Large number of exposure units for pooling;
- Determinable loss amount;
- Calculable chance of loss;
- Fortuitous in nature;
- Not catastrophic; and
- Possessive of an economically feasible premium.

Additionally, terrorism poses another unique challenge in that critical information is not widely available to underwriters for national security reasons.

¹ The American Academy of Actuaries is an 18,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

² Principles of Risk Management and Insurance, 12th edition, Rejda McNamera; pps 22-24.

To be poolable, the risk must entail a sufficiently large number of independent exposure units to make reasonably predictable the risk of loss assumed by an insurance company through the operation of the law of large numbers, resulting in close alignment between predicted and actual (or observed) results. The determinable characteristic means that the loss must be finite and clearly defined in the insurance policy so that the amount of potential indemnification is actually known and capable of financial measurement. This removes substantial ambiguity from the occurrence of the loss. For a risk to be calculable, it must permit the insurer to estimate an appropriate premium based on the expected frequency and severity of loss arising from the exposure. The inherent unpredictability of catastrophic terrorism risk distinguishes it from more “standard” natural perils risks, making it difficult to maintain a stable market without a federal backstop.

The risk of terrorism lacks many of the characteristics of an ideally insurable risk. In particular, due to the limited number of historical events, terrorism risk is much harder to model than other catastrophes. While terrorism modeling techniques have substantially evolved since 2001, a key parameter of all catastrophe models is the estimation of the frequency of possible events. Modelers of terrorism risks estimate frequencies (probabilities) and run simulations to present the results in 100-year, 250-year, and 500-year scenarios. The frequency of terrorism risk cannot be estimated with any degree of precision. That lack of precision can lead to unstable model output or the risk of availability or affordability issues arising after an event. By comparison, modelers examining 100-year returns for hurricanes have hundreds of historical named storms that can be used to estimate probabilities, and those probabilities drive hurricane modeling estimates. Because of this, one severe hurricane or a series of destructive storms is not likely to cause significant market disruption. By comparison, the parameters that populate terrorism risk models are not as evolved or accurate as hurricane modeling parameters, which can result in a material risk of model (and thus market) instability following an event.

Terrorism risk is also different from other insured catastrophic risks in two critical ways: 1) terrorism events are not random and 2) terrorists change strategies in response to risk mitigation efforts. Terrorism risk is not random because attacks are more likely to occur in large cities and are more likely to be aimed at specific targets, such as power plants or airports, perhaps even on specific dates. A hurricane does not change its path because a sea wall was put in place to minimize storm surge. An earthquake in California does not avoid certain areas because building codes are stronger. While some areas are more prone to certain types of natural disaster, natural catastrophes are still fortuitous. The Mississippi Gulf Coast sustained significant damage in 2005 because of Hurricane Katrina, but that does not make a Mississippi Gulf Coast hurricane event in future years more or less likely.

Terrorism risk is patently a catastrophic risk, and, without a federal backstop, premiums for terrorism risk insurance coverage would be unstable and subject to periodic availability issues. While industry capital is about \$650 billion, the use of this statistic can be misleading as much of that capital is tied to personal lines coverages like automobile or homeowners’ insurance, which are excluded from the TRIA program. Excluding the personal lines carriers, the commercial lines’ capital base, according to A.M. Best, is approximately \$250 billion, which makes it very

difficult for the private market to absorb a \$150 billion event. Many of the modeled scenarios are above this threshold, and the proposed eventual aggregate retention of \$37.5 billion would represent 15 percent of the commercial lines' capital base. While some members of the reinsurance community have suggested that the reinsurance market has the capacity to handle the catastrophic nature of terrorism risk, any such protection would likely be limited, as reinsurers typically do not provide unlimited (uncapped) proportional coverage.

The success of TRIA has been driven by a deliberate approach that carefully balances the needs of the private market with the availability of government support. Increased retention amounts could disrupt that balance and jeopardize the ability of smaller individual companies to offer terrorism risk insurance coverage.

For the foregoing reasons, the CPC appreciates the fact that S. 2244 retains the existing framework's basic structure of deductibles, co-pays, and triggers. By reauthorizing the program for seven years, S. 2244 also provides comparative certainty to what would otherwise be an increasingly unstable market.

We hope these comments help the Senate as it considers the parameters of reauthorization of the terrorism risk insurance program. The Academy welcomes the opportunity to serve as an independent and objective resource for the Senate and is available to provide additional assistance as needed. We would be pleased to discuss these issues further and/or answer any questions you have related to this letter.

If you have any questions about our comments, please contact Lauren Pachman, the Academy's casualty policy analyst, at Pachman@actuary.org or (202) 223-8196.

Sincerely,

Michael E. Angelina, ACAS, MAAA, CERA
Vice President, Casualty Practice Council
American Academy of Actuaries

cc: Members, U.S. Senate