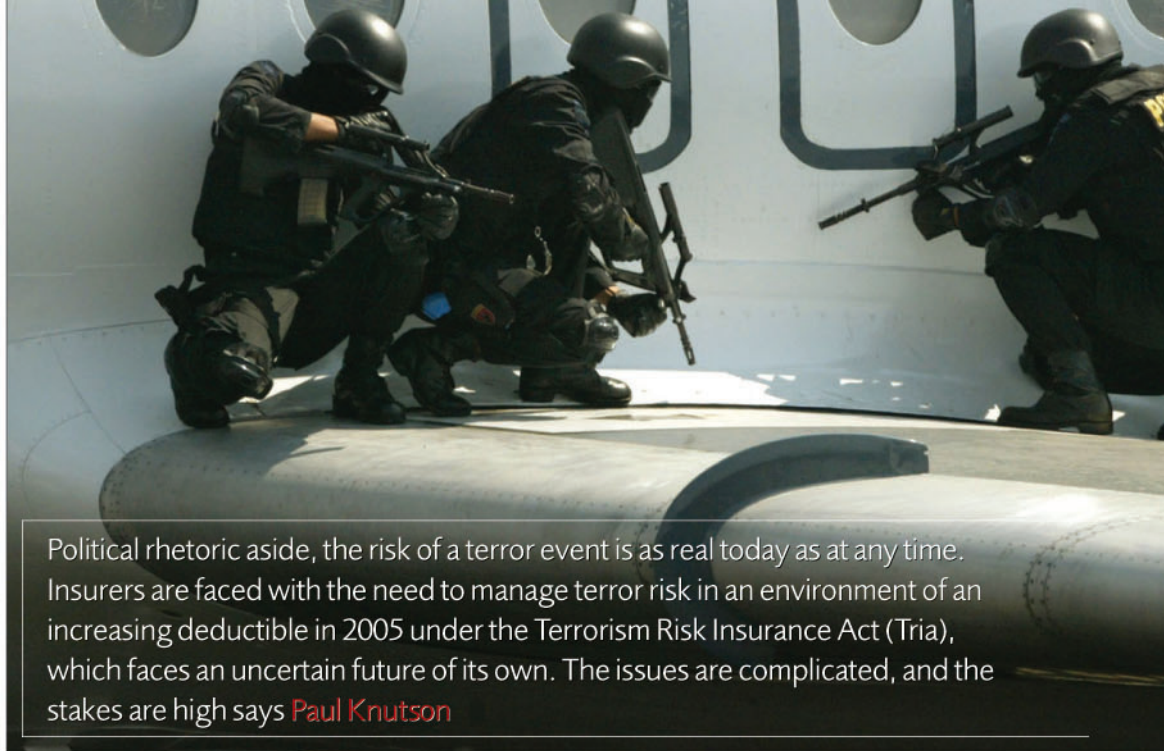


# Terror Risk in uncertain times



Political rhetoric aside, the risk of a terror event is as real today as at any time. Insurers are faced with the need to manage terror risk in an environment of an increasing deductible in 2005 under the Terrorism Risk Insurance Act (Tria), which faces an uncertain future of its own. The issues are complicated, and the stakes are high says **Paul Knutson**

**A** fundamental component of companies' current terror risk management strategy is Tria. With Tria in place, companies decide whether and how they manage the terror risk that is net of Tria. Key features of Tria are:

- Tria pre-empts and nullifies pre-existing terrorism exclusions, except exclusions for property outside the US and acts of domestic terrorism.
- Tria requires mandatory participation in the programme and provision of terrorism coverage by all insurers providing commercial property

and casualty insurance. Companies must offer terrorism insurance to all subject policyholders. This proviso was law for 2003 and 2004 and needed to be renewed by the Secretary of the Treasury for 2005. The secretary announced the extension of the "make available" provision on June 18 2004 well in advance of the deadline so as to avoid any market disruption. Tria was designed to be a short-term governmental solution and terminates on December 31 2005, unless extended:

- Each participating insurance company will be responsible for

its deductible before federal assistance becomes available. This deductible is based on a percentage of direct premiums from the previous calendar year. The deductible will increase from its current 10% to 15% beginning in 2005:

- For losses above a company's deductible, the federal government will cover 90%, while the company contributes 10%.
- Losses covered by the programme will be capped at \$100bn. Above this amount, Congress is to determine the procedures for and the source of any payments.



- State insurance law is preserved, except as follows: until December 31 2003, states were required to allow rate and form changes to take effect immediately, but they retained full authority to disapprove any forms that violate state laws or any rates deemed excessive, inadequate or unfairly discriminatory.

### 'NBC' ISSUE

Issues surrounding Nuclear, Biological and Chemical (NBC) exposures add uncertainty and further complexity to managing risk. Key questions about the

treatment of NBC abound. The intent of Tria was only to restore coverage that existed prior to September 11 2001. If policies always excluded nuclear exposures and/or pollution and contamination, then the purchase of terrorism coverage post-Tria does not create coverage where it didn't exist previously. Workers' compensation policies, by their nature, provide NBC coverage, while named peril policies tend to exclude NBC. Environmental market policies may respond to NBC contaminants from terrorism if the client elects Tria coverage.

In all but a few select cases, primarily for regional writers in non-target areas, reinsurers have been resistant to providing capacity for NBC perils. While this remains true generally, it is worth noting that recently reinsurers appear to have made available a limited amount of NBC capacity for national exposures that wasn't previously available.

### TRIA'S FUTURE

Tria is scheduled to expire at the end of 2005; however, a provision in Tria allows for earlier expiration of the "make available" requirement. Recall that in creating Tria, the federal government required insurers to "make available" coverage for foreign acts of terrorism, as defined in the law. The legislation states that no later than September 1 2004, a decision will be made by the Treasury Department on whether to extend this requirement at

December 31 2004, for 2005. Treasury acted sooner than the deadline by announcing on June 18 2004, that it was extending the "make available" provisions of Tria. Treasury stated that it made its determination well in advance of the deadline to avoid potential disruption in the terrorism insurance market.

Tria protection is in effect through December 31 2005. Prior to June 30 2005, the Secretary of the Treasury will report to Congress on the effectiveness of the programme, including an estimate of the capacity of the industry to provide terrorism coverage and the cost of the coverage. As part of its due diligence, the Treasury Department has prepared questionnaires for insurers and reinsurers in an attempt to quantify these variables.

The insurance industry is asking Congress to extend Tria for two years beyond its December 31 2005, planned expiration date. This '2-year extender' would continue the 2005 structure of Tria through 2007 with no changes to the programme. Industry lobbyists are emphasising to Congress that Tria will affect policies written this fall and winter that extend to 2006. Accordingly, they are pushing for passage of the extension this year.

In the House, Republican and Democratic bills were introduced to extend Tria beyond December 31, 2005. Key differences are summarised as follows:

	<b>Democratic</b>	<b>Republican</b>
Duration of extension	3 years	2 years
Insurance company deductible	15% throughout the duration	15% in 2006 (same as 2005); 20% in 2007
Industry retention	Maintain the \$15bn retention throughout	17.5bn in 2006; \$20bn in 2007
Include Group Life?	To be included	To be determined by Treasury
Reporting to Congress on market-based alternatives	Task assigned to General Accounting Office	Task assigned to Treasury

In the Senate, bipartisan legislation was introduced in July, sponsored by Senators Dodd (D-CT) and Bennett (R-Utah) that would extend Tria until the end of 2007.

All proposed legislation is subject to the often impenetrable dynamics of the political process, exacerbated further by the November 2004 election that includes the presidency. Various industry associations (Reinsurance Association of America, the American Insurance Association and the Council of Insurance Agents & Brokers) have indicated a 40%-50% chance of Tria being extended in 2005.

If Tria is not extended, primary annual insurance policies with cover incepting in January, 2005, will start to have some exposure outside of Tria. Implications of Tria's sunset may include:

- Limited reinsurance capacity availability for terrorism
- 'First come, first served' basis for finite supply of aggregate
- Data quality will be critical to quantifying terror exposures
- More approval by state regulators of exclusions and more use of exclusions

- Carriers may decide to exit certain lines in certain areas, rather than deal with terrorism
- Rating services will be faced with decisions on whether to initiate downgrades based on terror exposure, potentially igniting a crisis.

### ISO ENDORSEMENTS

The Insurance Services Office (ISO) in early May 2004, began filing conditional commercial policy contract language to address terrorism coverage should Congress not extend Tria. The endorsements created by ISO will allow flexibility to carriers writing policies that extend into 2006 to exclude or reduce cover for the policy period that pertains to 2006 and beyond.

### SFP STATES

Standard Fire Policy (SFP) legislation mandates that a property policy covering fire risk in the state must conform to the cover under the SFP. The SFP contains few exclusions, and specifically does not exclude terror as a cause of loss by fire. Thus, insurers writing property cover in SFP states cannot exclude fire losses as a result of a terror event. Thirty states have SFP legislation.

Since the events of September 11 2001, 10 states have passed legislation to allow the exclusion of terrorism from the Standard Fire Policy. The 20 remaining states with SFP legislation have no terror exclusion.

### TERRORISM TAKE UP

The results of a recent survey shows that more than 46% of Marsh clients obtained terrorism insurance in the second quarter of 2004, the highest percentage since tracking began. This increase from the first-quarter 2004 take up rate of 44% was minimal, but it was measurably increased from the fourth quarter of 2003 in which the prevailing take up rate was 33%.

The following are among the reasons for the recent increase in take up rates:

- Reduced property insurance costs, with the 'savings' being shifted to the purchase of terrorism coverage
- Recently elevated threat levels and the November elections
- The availability of coverage for little or no premium, especially outside target areas
- Underwriters have become more comfortable pricing terror coverage in metro areas

## STANDARD FIRE POLICY STATES

**Terror Exclusion Allowed**

Connecticut  
Louisiana  
Michigan  
Minnesota  
Nebraska  
New Hampshire  
Oklahoma  
Rhode Island  
Virginia  
Wisconsin

**No Terror Exclusion Allowed**

Alaska (Personal Lines Only)  
Arizona  
California  
Georgia  
Hawaii  
Idaho  
Illinois  
Iowa  
Maine  
Massachusetts  
Missouri  
New Jersey  
New York  
North Carolina  
North Dakota  
Oregon  
Pennsylvania  
Texas (Personal Lines Only)  
Washington  
West Virginia

- The availability of significant coverage for 'non-certified' terror events: those not covered by Tria.

With all else being equal, the trend of take up rates increasing is likely to continue through the end of 2004 and into 2005, requiring diligence by insurers in order to manage the potentially increasing exposure.

**TERRORISM REINSURANCE**

There are several observations to be made about conditions in the current terrorism reinsurance marketplace:

- Tria certified acts of terrorism are generally excluded for national carriers, as are the NBC perils. Coverage is typically available for non-certified (domestic terrorism) events. In

workers' compensation covers, NBC perils are frequently covered

- Regarding regional and rural exposed insurers, some terrorism capacity is available, typically one aggregate limit, excluding NBC. These portfolios will not have concentration of risk in major urban centres or in close proximity to iconic or target buildings
- For insurers with exposure in major urban centres or near target risks, terrorism coverage is limited but available, typically through a stand-alone cover or separate coverage section within an existing all perils contract. The premium charged correlates directly to the actual and perceived severity of the exposures, and capacity is limited
- Both occurrence and aggregate coverage is available for terrorism, with a predominance today of occurrence-based coverage
- Issues regarding the handling of terrorism should Tria expire as planned are now being brought to the negotiation table. 'Contingency' wording may be



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introduced to the contract with the purpose of invalidating the existing terrorism exclusion in the contract, and specifically defining and excluding acts of terrorism if Tria goes away

- Some softening of terrorism reinsurance pricing has occurred over the past 24 months, but capacity is still relatively expensive by most measures, as the result of factors discussed below.

Reinsurers generally allocate a minimum amount of capital to terrorism and are not willing to 'lose the company' because of terrorism. The spread of risk amongst terrorism reinsurance buyers is small, and reinsurers' allocated capital to terrorism is written at 100% of PML in most instances. With high PMLs and little spread of risk, return on capital hurdles keeps terrorism capacity more expensive than other perils where a greater spread of risk can be achieved and PML modelling is more advanced.

We conservatively estimate per programme capacity for terrorism at \$600m, excluding NBC. If NBC coverage is

included, capacity shrinks to approximately \$375m. Of course, many factors will ultimately impact the maximum capacity available from the market for any given transaction, and these estimates could be conservative or liberal in that context. However, price, exposure location and, especially, data quality are likely to have an effect on the capacity generated by any terror reinsurance transaction.

Various terms and conditions may be explored to help maximise capacity and minimise cost of terrorism coverage in a treaty, including the use of territorial limits, TIV limits, terrorism sub limits, or perhaps reverse market franchise provisions where Tria certified acts are covered by reinsurers if the loss is contained within a threshold of a \$5bn loss event, for example.

Pooling and shared limit approaches are conceptually attractive, yet difficult to implement. Nonetheless, Guy Carpenter continues to explore these options. A more realistic solution to increase capacity for terrorism may be the formation of terrorism-specific risk-bearing

entities with dedicated capital for the peril. However, this approach would also face hurdles with rating agencies that would be challenging to overcome.

### TERRORISM MODELLING

Quality exposure data at a street address level is important for natural peril catastrophe modelling, but it is vital in terrorism modelling. Terror events can be very localised, and for this reason the data resolution needs to be at a very fine level. With such data, the first step to quantifying terrorism exposure, accumulation mapping, can be done accurately. It is possible in some instances to have all the information needed to manage terror risk with comprehensive accumulation mapping. To take the next step, however, terror modelling can be performed.

The major catastrophe modelling vendors each have developed and released terrorism models, and Guy Carpenter's InStrat unit has worked extensively with these models. Compared to natural peril models, terrorism modelling is still in its infancy. However, tremendous resources

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have been put toward improving the validity of the models in a short time period. The key is to treat terrorism modelling as one tool for managing risk but not to expect an ‘answer’ from the model.

Accumulation assessment is the process of identifying and quantifying concentrations of multi-line exposures around potential terrorist targets irrespective of their proximity to a target. Target-based accumulation assessment locates potential targets – typically those of high economic, human and symbolic value – and aggregates a company’s exposures within various distances of the targets. To compliment the target-based approach, it is also necessary to search for clusters of exposure exceeding an economic threshold within a portfolio, irrespective of any perceived targets. This compensates for possible omissions in the target list, recognising that there is some probability of a terrorist attack at any location.

Deterministic modelling takes accumulation analysis a step farther and represents a compromise between the lack of accuracy in an accumulation analysis and the vast uncertainty surrounding probabilistic models. By imposing an actual event’s damage ‘footprint’ at a specified target, a specific (yet hypothetical) scenario can be analysed with a fair degree of certainty. Major modelling firms all offer a wide array of deterministic analysis tools for conventional and CBNR



(chemical, biological, nuclear, radiological) attacks at both target and non-target locations. This approach can also be effective where coarse screening studies show that exposures for an area or event could be high and a more detailed assessment may reduce uncertainties and help decision-making.

Catastrophe modelling can also be probabilistic, where loss is estimated based on a large number of events and their associated probabilities, with a key factor being the estimated frequency of the event. This is where the credibility of probabilistic terrorism modelling is questioned by many insurers, understandably, as it requires prediction of human behaviour. While credible probabilistic terrorism modelling remains elusive, Guy Carpenter’s InStrat unit has helped clients explore the possibilities of terror loss using a judgment-based approach that goes beyond purely deterministic modelling.

This methodology eliminates the circumspection of trying to predict human behaviour and allows the company management to test its judgment as to how bad a loss may be for potential events and to assess the impact of a given loss on various lines of business. Early feedback from clients has been very positive.

### SUMMARY

The terror risk to insurers remains significant, and the industry is faced with uncertainty over the future of Tria. Whether or not Tria is extended, the need to manage terror risk is not going away. Guy Carpenter has at its disposal cutting edge tools and methodologies to estimate and monitor terror exposure, and we are actively engaged with reinsurers to develop capacity and products that meet insureds’ needs. We will continue to work to develop new and better products and solutions to help our clients manage terror exposure.