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BRIEFING



Trade-Offs Among Alternative Government Interventions in the Market for Terrorism Insurance

Interim Results

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Summary

This documented briefing presents interim findings from a RAND Center for Terrorism Risk Management Policy (CTRMP) project that aims to provide analysis that can inform the debate over extending the Terrorism Risk Insurance Act of 2002 (TRIA), as modified in 2005.

The study uses robust decisionmaking (RDM), an iterative, analytic process for identifying and assessing key trade-offs among strategies under conditions with considerable uncertainty, to assess three alternative government interventions in the market for terrorism insurance: TRIA; no government terrorism insurance program; and an enhancement of TRIA meant to improve the availability of insurance coverage for chemical, biological, radiological, or nuclear (CBRN) attacks.

We use a computer simulation model to assess the performance of these interventions across a large number of plausible future states of the world. These futures include six attack scenarios: two conventional ones (1- and 10-ton truck bombs) and four CBRN scenarios (a 5-kiloton nuclear bomb, an outdoor anthrax attack, an attack using a radiological device, and an indoor sarin attack in the same metropolitan area). The futures also span a wide range of assumptions about the key uncertainties that underlie the functioning of terrorism risk insurance markets and the response of the government in providing compensation for uninsured losses after an attack. The performance of each intervention is gauged in terms of four outcome measures: (1) fraction of losses that remain uncompensated after an attack, (2) cost to taxpayers, (3) fraction of industry surplus backing commercial property and casualty insurance lines used to compensate losses following an attack, and (4) cost to future policyholders.

The results suggest that TRIA has important positive effects on the market for terrorism insurance, particularly for conventional attacks. TRIA causes the take-up rate² for terrorism coverage for conventional attacks to be higher than it would be without the program, leading to lower costs borne by businesses affected by the attack in a substantial number of the scenarios examined. While TRIA does increase the cost to taxpayers in scenarios involving the largest attacks, the expected cost to taxpayers should a conventional attack occur is lower with TRIA than without TRIA under a wide range of assumptions anchored around existing estimates of the probability of large attacks. Transferring risk for the largest events to taxpayers

² *Take-up rate* refers to the proportion of businesses that have insurance coverage for property losses resulting from terrorist attacks. As will be discussed further below, workers' compensation (WC) policies always cover loss, regardless of cause.

provides benefits in terms of lower uncompensated losses and lower taxpayer costs in the most likely scenarios.

TRIA's performance in the face of CBRN attacks is more mixed. The program cap does reduce risk to the insurance industry, even if insurers may still end up financing some of the losses above the program cap. However, the take-up rate for CBRN coverage on property policies is still very low under TRIA, leading to little change in either the fraction of losses compensated or the burden on taxpayers, compared with no government program.

Given TRIA's mixed performance with CBRN attacks, we considered a simple enhancement of TRIA intended to better address CBRN attacks. Our findings illustrate that any expansion of TRIA to address CBRN attacks must be made with significant care to achieve the desired goals and avoid unintended consequences. More specifically, modifying TRIA to require insurers to offer policies that cover both CBRN and conventional coverage without changes in other program features, such as the insurer deductible or program cap, may have major unintended disadvantages for conventional attacks. In particular, the results for TRIA with a mandatory CBRN offer are very similar to those if TRIA expires for conventional attacks. And, when it comes to its effect on CBRN attacks, we find that TRIA with a mandatory CBRN offer does not improve outcomes much over TRIA as it currently exists.

The results documented here are from work in progress. As such, we are continuing to analyze modifications to TRIA that may better address CBRN attacks and the partial take-up of terrorism insurance that occurs even with TRIA.