# NAIC's Center for Insurance Policy and Research Brunch: Insurance for Acts of Terrorism

## An Actuarial Perspective on the Future of Terrorism Risk Insurance

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# Overview of Remarks

- The Insurability of Terrorism Risk
  - Frequency is small, but exposure is significant
  - Annual cost of current program varies greatly depending on whether an attack occurs; scenarios with and without future triggering events should be considered
- The Current and Prospective Private Market for Terrorism Coverage
  - Market has been stable because of federal backstop
- How the Terrorism Risk Insurance Program (last authorized in 2007, expires in 2014) Works
- The Importance of Timely Terrorism Risk Insurance Program (TRIP) Renewal
  - Impact of non-renewal on industry capacity is significant

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# The Insurability of Terrorism Risk

- Terrorism risk unlike most insurable risks
  - Difficult to measure frequency (possible/probable number of events) or severity (maximum size/cost)
  - Difficulty in measuring risk → difficulty pricing for it
  - Randomness of losses: most insurable risks occur at random times in random locations and are of random magnitudes; terrorism losses are anything but random
  - Rarity of terrorist attacks results in lack of available data on which to base estimates of frequency or severity of future losses
  - Terrorist attacks are intrinsically focused on maximizing financial/psychological impact, so unlikely to be geographically dispersed, which can cause adverse selection

# The Insurability of Terrorism Risk

- Tendency to think threat of terrorist attacks on U.S. soil has abated, but risk persists
- Magnitude of potential losses:
  - $778.1 billion in estimated insured losses from a large chemical, nuclear, biological, or radiological (CNBR) attack on New York City[1]
  - While this figure is six years old, it would likely only be higher in 2013 as a result of increased concentration of risks and property values

[1]Above figure taken from stochastic modeling found in Academy's 2006 Report to President's Working Group on Financial Markets

# The Insurability of Terrorism Risk

- Extent/breadth of exposure:[2]
  - Between May 2009 and Aug. 2012, there were 16 attempted terrorist attacks on U.S. cities[3]
  - Unrest in Middle East/"Arab Spring"
  - July 2012 RMS briefing: increasing "homegrown" terrorist threat of conventional attacks by individual operatives
  - Transit system threats
  - Maritime piracy/terrorism

[2]See Robert P. Hartwig, "Terrorism Risk: A Continuing Threat—Impacts for Property/Casualty Insurers," available at http://www.iii.org/assets/docs/pdf/paper_Terrorism_090612.pdf

[3]See Robert P. Hartwig, Testimony Before House Financial Services Subcommittee on Insurance, Housing and Community Opportunity, "TRIA at Ten Years: The Future of the Terrorism Risk Insurance Program," available at http://financialservices.house.gov/uploadedfiles/hhrg-112-ba04-wstate-rhartwig-20120911.pdf

# The Current and Prospective Private Market for Terrorism Coverage

Current Conditions of Private Market for Terrorism Coverage:

- Market has been stable over the past several years
- According to 2008 report, "Terrorism Insurance: Status of Efforts by Policyholders to Obtain Coverage," by Government Accountability Office (GAO):
  - Terrorism risk insurance generally available nationwide, reasonably-priced, and affordable, except for owners of large, high-value properties in densely-built cities
  - Some of those owners bought coverage from a large number of insurers or via a separate policy (rather than as part of a property insurance package), or self-insured

# The Current and Prospective Private Market for Terrorism Coverage

- According to 2010 Report by the President's Working Group (PWG) on Financial Markets on Market Conditions for Terrorism Risk Insurance:
  - Availability & affordability have improved since 2006 because insurers built capital and increased market capacity
  - Capacity is still constrained in high-risk geographic locations and properties
  - Market improvements (between 2006 and 2010) may be due to:
    - improvements in modeling and managing aggregate loss exposure
    - new market entrants and increased competition
    - better understanding of aggregate risk
    - increased capacity and competition, resulting in lower prices
  - Take-up rates among commercial policyholders reached approx. 60 percent in 2006 but have remained flat since then
  - Market participants are still uncertain about models' ability to predict frequency and severity

# The Current and Prospective Private Market for Terrorism Coverage

Factors Influencing Prospective Private Market:

- Uncertainty influences policyholder perception of risk and purchase decisions, as well as insurer and reinsurer capacity allocations
- Key factors include:
  - Capacity
  - Ability to estimate potential exposure to loss resulting from terrorism events
  - Ability to obtain reasonable pricing of insurance to cover those events
  - Level of insurer/reinsurer capital
  - Availability of federal backstop
- Capacity will continue to limit private market expansion
  - CNBR attacks widely perceived to be uninsurable because of inability to quantify exposures; contractual exclusions of such attacks permitted under TRIP
  - Even for non-CNBR attacks, capacity is insufficient in private reinsurance market and would need to increase significantly for private reinsurance market to absorb risks currently covered by TRIP

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# How TRIP Works

- Triggered by domestic or foreign terrorist acts likely to produce total insurance industry losses above $100 million
- Individual company deductibles (before TRIP kicks in) set at 20 percent of commercial P&C insurance earned premiums from prior calendar year
- Copays (above deductibles/retentions) covered by federal government at 85 percent and by insurer at 15 percent
- Industry altogether must cover a certain amount of losses through deductibles and copays (“aggregate retention”). Required aggregate retention amount is currently $27.5 billion. If retention is ultimately found to be below required aggregate retention amount, federal government can recoup the difference; payment would come from surcharge on commercial insurance policies, not to exceed 3 percent of premium for coverages to which TRIP applies.

# How TRIP Works

- Currently no make-available provision for CNBR coverage
- Eligible business lines: commercial lines, workers' comp pools, state-licensed captives, risk retention groups. Personal lines (auto, home, etc.), group life, and reinsurers not covered.
- In exchange for federal government backstop, commercial insurers must make coverage available and on same terms as they offer in rest of their coverage
- Assuming zero triggering events and TRIP's continued existence, President Obama's FY2013 budget contemplated net spending of $584 million from 2013–2017 (roughly $116 million annually)[3] on TRIP
  - Current incarnation of TRIP expires at end of 2014, and budgetary assumptions for 2013-2017 assume continuation of current funding levels

[3]See White House Fiscal Year 2013 Budget Appendix, available at http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/appendix.pdf

# Importance of Timely TRIP Renewal

Without TRIP or similar federal backstop for terrorism risk insurance:

- Persistent uncertainties regarding potential attacks make it likely that premiums for terrorism risk insurance will become expensive and volatile
- Availability will be greatly reduced, particularly after next event
- If/when next event occurs, federal government is likely to cover commercial losses
  - It is appropriate that federal government provides backstop to losses caused by terrorist attacks as part of cost of national security defense

# Importance of Timely TRIP Renewal

Without TRIP or similar federal backstop, we expect the following:

- Some coverage types (e.g., workers' compensation) are required to apply to claims made by those who suffer losses in terrorist attacks; such coverages will become much riskier for insurers
  - required coverage will become more expensive and/or less available over time
  - insurers needing to limit terrorism risk exposure would have no choice but to avoid underlying exposure (i.e., number of insureds in which the insurer provides any coverage at all will be necessarily reduced to control exposure to most expensive events)
  - if no exclusions for riskiest coverage (e.g., coverage for CNBR losses) are permitted by state law, states could expose insurers to very large losses and could ultimately reduce availability of non-terrorism coverage and financial solvency of affected insurers

# Importance of Timely TRIP Renewal

- Estimated cost to insurers if terrorist attack occurs after TRIP expires:
  - Conventional attack: insured losses would be substantially similar to insured losses from Sept. 11 ($32.5 billion in 2001 dollars)
  - CNBR attack: insured losses could range from $27.3 to $778.1 billion
- Private primary/reinsurance market capacity is likely to be insufficient to fill the gap that would be created by TRIP's expiration
- Existing market could be disrupted should TRIP be permitted to expire, even if it is eventually reauthorized; experience with National Flood Insurance Program's repeated expirations and reauthorizations is instructive

# Importance of Timely TRIP Renewal

- Some federal backstop for terrorism risk insurance necessary for terrorism coverage to be widely and readily available
- Assuming lack of federal backstop, we should not expect any significant reduction in uncertainty associated with estimating terrorism risk exposure or any increase in amount of private capital invested in terrorism risk reinsurers
- Absence of federal backstop will reduce availability of coverage and potentially result in insufficient capital to support insurance of a variety of plausible terrorism events

# Conclusion

- To the extent that coverage for conventional terrorism risk is available and affordable, it is attributable to existence of TRIP
- Structure of program has encouraged development of reinsurance for layers of risk that insurers must bear themselves (deductible amounts and copays), which allows primary insurers to provide coverage
- Without TRIP, insurers would be far less likely to offer terrorism risk insurance

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