



Written Testimony
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**Committee on Banking, Housing and Urban Affairs
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On

**“Reauthorizing TRIA:
The State of the Terrorism Risk Insurance Market”**

by

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Introduction/Summary

Chairman Johnson, Ranking Member Crapo, distinguished members of Committee on Banking, Housing and Urban Affairs, thank you for inviting me to testify today on “Reauthorizing TRIA: The State of the Terrorism Risk Insurance Market.” My name is Erwann Michel-Kerjan. I teach at the Wharton School of the University of Pennsylvania and I am Managing Director of the Wharton Risk Management and Decision Processes Center.

For nearly three decades, the Wharton Risk Center has been at the forefront of basic and applied research to promote effective corporate and public policies for low-probability events with potentially catastrophic consequences (i.e. extreme events) based on an understanding of the decision processes of consumers, firms and public sector agencies (<http://www.wharton.upenn.edu/riskcenter/>). Our team has published over 20 studies on terrorism risk insurance since 2001 and has been active in discussing findings with top policymakers and industry leaders. I personally took part in a number of discussions with Congress and the Administration at that time that led to the 2005 and 2007 renewals and modification of TRIA.

In the absence of any severe large-scale attack on national soil since 2001, the program has been successful at sustaining a robust terrorism insurance market here in the U.S. Our more recent work which I will discuss here shows that the demand for terrorism insurance from medium and large corporations in the U.S is strong and price inelastic (low sensitivity to price) under current conditions. This also indicates that if one would like to reduce government’s involvement in that program by increasing insurers’ deductible and/or charging for the federal backstop, this could be done incrementally without disrupting the market much. We know little, however, about small businesses.

Without TRIA, though, American taxpayers might actually end up paying as much after a large terrorist attack through federal disaster relief (which it will be impossible to deny, as taxpayers have become de facto the prime funding source in the aftermath of natural disasters and financial crises alike), if not much more as they would today if insurers lower the capacity they provide when the mandatory requirement expires. There will be an expectation for the federal government to pay for most of the uninsured economic losses. I made this point when I testified before the House on September 11, 2012 but it is worth saying it again.

Since 2008 I have also had the privilege to serve as chairman of the OECD Board on Financial Management of Catastrophes. The Organization for Economic Cooperation and Development (OECD) is an international economic organization of 34 countries, of which the U.S. was a founding member in 1961. It is committed to democracy, market economy, and economic progress and provides a platform to compare policy, experiences, seek answers to common problems, and identify good practices.

The Board advises those 34 governments and the G20 upon request (www.oecd.org/daf/fin/catrisks). Two recent OECD international events brought together for the first time ever the heads of all terrorism risk insurance programs around the world, industry leaders and the intelligence community. Of note, of all countries that have established such programs, none has let theirs expire. Looking at other countries is not only important to be able to exchange notes on possible redesign of TRIA, but more fundamentally because American corporations compete with foreign firms which might have a large part of their assets covered by those terrorism insurance programs under different conditions of price and coverage.

My testimony today will focus on three questions:

- 1) **How is TRIA currently designed and has it achieved its goal? Is there room as part of the reauthorization process for modifying TRIA without disrupting the market?**
- 2) **Why have I argued that letting TRIA expire would *increase* taxpayers' financial exposure to terrorist attacks, not reduce it?**
- 3) **How have other OECD countries addressed the terrorism risk coverage challenge? (something important to know for America's competitiveness)**

SECTION I. WHAT DO WE KNOW ABOUT THE TERRORISM INSURANCE MARKET? NEW EMPIRICAL EVIDENCE

The lack of availability of terrorism insurance shortly after the 9/11 attacks led to a call from some private sector groups for federal intervention. For example, the Government Accountability Office reported in 2002 that the construction and real estate industries complained that the lack of available terrorism coverage delayed/prevented projects from going forward because of concerns by lenders or investors.

In response to such concerns, the Terrorism Risk Insurance Act of 2002 (TRIA) was passed by Congress and signed into law by President Bush on November 26, 2002.¹ This program was originally aimed at providing a three-year temporary measure to increase the availability of risk coverage, but the program has been renewed twice since, in 2005 and 2007. TRIA is now extended up to the end of 2014.

In brief, TRIA requires insurers to offer terrorism coverage to all their commercial clients (a legal “make available” requirement). (Note that residential coverage is not included in this program and it is not clear who would pay for residential losses from terrorism). These firms have the right to refuse this coverage unless it is mandated by state law, as in the case of workers' compensation in most states.

Loss sharing under TRIA is organized as follows: The first layer is provided by insurers through a deductible. That deductible is calculated as a percentage of the direct earned premiums each insurer received in the preceding year from its policyholders for all lines of business covered under TRIA. In order to increase the role of the private market over time, this percentage has increased sharply from 7% in 2003, to 10% in 2004, 15% in 2005, and it has been 20% since 2007—**i.e. nearly tripling over time. For several large insurers, this represents billions of dollars before they receive any federal assistance.** The second layer up to \$100 billion is the joint responsibility of the federal government and insurers. Specifically, the federal government is responsible for paying 85% of each insurer's primary losses during a given year above the applicable insurer deductible; the insurer covers the remaining 15%.

Contrary to what is done in other countries (see the review in Section III), the U.S. federal government does not collect any premiums for covering 85% of the insurer's losses above the deductible. It provides insurers with free up-front reinsurance for exposure that would ordinarily require a substantial amount of (costly) capital should the insurers seek protection from the private reinsurance market alone. The “up front” is important here since the U.S. Treasury can recoup part of its payment from insurers over time; they can in turn recoup this amount against all their policyholders, victims of the attack or not.

¹ The complete version of the original Act can be downloaded at: http://www.treas.gov/offices/domestic-finance/financial-institution/terrorism-insurance/claims_process/program.shtml.

Has TRIA Worked as Intended?

The main policy goal of TRIA was to ensure that commercial firms across the nation could access subsidized coverage, and as a result, more companies would purchase this coverage.

Market Penetration Has Increased Substantially. The empirical evidence reveals that this strategy has worked. Market data from the two largest insurance brokers, Aon and Marsh, on their own clients (which tend to be larger firms), indicate that take-up rates for terrorism insurance by large firms has more than doubled, from 27% in 2003 to 58% in 2007, a level that has remained stable since (it is 62% today). These figures have been cited in a number of publications and by my fellow panelists today.

Three important points should be noted about this 62% take-up rate. First, this is not a TRIA take-up rate but combines *all* types of terrorism coverage: U.S. risks only (TRIA only), U.S. risks and non-U.S. risks (clients with foreign values; referred as “TRIA and non-certified”), high risks not covered by the market (referred to as “standalone coverage”), and programs structured as a combination of standalone and TRIA coverage (often done through a captive). Second, these are based on the portfolio of clients of the above two brokers which tend to be medium to large size clients (in other words, these are samples only not the full market). Third, there is a lot of heterogeneity across industries (e.g., take-up rate for media, education, financial institutions is around 80% but only 43% in the energy sector; Marsh, 2013).

While we should certainly feel good about the increase observed in 2003-2006, this also means that probably about 4 out of 10 large corporations in the U.S. don't have coverage against terrorism today. Whether they will be able to sustain a large loss with internal or external capital is an open question Congress might want to analyze further. We need to better understand the demand side of this market. Let's remember that on 9/11 terrorism was included as an unnamed peril in most insurance policies so the take-up rate was virtually 100%.

An important element of the discussion about the future of TRIA is that there has been no analysis in recent years of terrorism insurance penetration for small businesses which constitute a vital part of our economy. They are the most vulnerable to financial shocks.

Decrease in Insurance Cost. The increase in coverage discussed above is partly due to the fact that terrorism insurance prices have continuously decreased since 2003. The median premium for terrorism insurance for middle-size and large firms was down from \$57 per million of total insured value in 2004, \$42 per million to \$37 per million in 2008, then to \$25 per million in 2009 (data from Marsh); the 2013 Marsh report shows that prices have continued to decrease for those firms to about \$20 per million today. This translates into terrorism premiums representing 3% to 5% of property premium paid by those firms. A 2012 report by insurance broker Aon provides similar information on take-up rates for the twelve months ending March 2012: \$20 per million for TRIA coverage only (which translates into an average of about 3.5% of the premium charged for property coverage for TRIA only and about 5% for TRIA and non-certified).

This price decrease is largely explained by the absence of a major attack on U.S. soil since 9/11, thanks to the hard work of our government services here and abroad. It is also explained by the natural effect of competition in insurance markets. The 2013 Boston attack had no impact on terrorism risk insurance markets.

While the surveys from leading brokers have provided a great deal of information about how much coverage their clients purchase and how much they pay for it, they do not say much about how *sensitive* that demand is to changes in terrorism insurance cost. A recent analysis (see sidebar below) utilizes these data to show that terrorism insurance is quite price inelastic. This finding has profound policy implications as Congress contemplates different design changes for TRIA.

Measuring Price Elasticity of the Demand for Terrorism Insurance

In a new study forthcoming in the leading peer-reviewed journal in the field, the *Journal of Risk and Insurance*, we accessed as part of a research partnership with Marsh & McLennan, data on insurance purchases by 1,808 large U.S. corporations operating across the country, and characteristics of insurers providing that coverage.

Combining demand and supply data we can then empirically examine corporate demand for insurance and compare property coverage with terrorism coverage, which has never been done before. (The research was supported by Wharton's Managing and Financing Extreme Events Project, Monash University and DHS's Center of Excellence CREATE at the University of Southern California.)

Corporate demand for terrorism insurance and property insurance are found to be rather inelastic. For those firms that purchase terrorism insurance, the demand for that coverage is found to be *more* price inelastic than their demand for property coverage. Depending on the applied estimation technique used for the analysis, the price elasticity for property coverage ranges from -0.19 to -0.36, while the price elasticity of corporate demand for terrorism coverage ranges from -0.11 to -0.25. At -0.11, this means that **increasing the price of terrorism insurance by 10% will only decrease the quantity of coverage bought by 1.1%.**

As an element of comparison, prior studies of price elasticities of demand for residential flood insurance were found to be as high as -1.55 to -4.48 for flood insurance policyholders who benefit from subsidized rates by the federal government (work by Landry & Jahan-Parvar). In that latter case, increasing insurance prices by 10% would result in a very significant drop as high as 44.8% in coverage. In the corporate world, the elasticity of firms' demand for health insurance spending was found to be to be -0.70—that is, 3 to 6 times more sensitive to price change than demand for terrorism insurance as we found it.

These findings have important implications as we discuss the future of TRIA:

a) Firms that bought that coverage really need/want it. They would keep demanding it even if insurers were to slightly increase the premiums they charge.

b) If TRIA were to be modified and insurers' deductible level were slightly increased from the current 20%, most likely we would not see any impact on the market. Similarly, there was no significant demand change when previous deductible levels had been increased.

c) If TRIA were to be modified so the federal government now charged for the financial protection it currently provides (as is done in a number of other countries), insurers could pass part of this cost to the firms; if reasonable and incremental; most likely this would not result in significant market disruption, either.

Sources: Erwann Michel-Kerjan, Paul Raschky and Howard Kunreuther (in press). **Corporate Demand for Insurance: New Evidence from the U.S. Terrorism and Property Markets.** *Journal of Risk and Insurance.*

Effects of the Federal Intervention on Terrorism Insurance Capacity/Concentration

In another recent study, we performed an economic analysis to evaluate how the supply of an additional unit of coverage differed between terrorism insurance (with government intervention) and property insurance (without it) with TRIA in place. We find evidence that insurers in the U.S. are much less diversified for terrorism coverage than they are for property lines of coverage, and to some extent for other types of catastrophe risks (e.g., wind and flood); meaning that they would more easily provide additional coverage to a client for terrorism risk than for these other risks.

This result can be interpreted in two ways. On the one hand, and as some have argued, there could be “gaming” here²: some insurers might be taking on much more terrorism risk with the current free up-front reinsurance from the federal government than they would otherwise, knowing that under TRIA they collect all the terrorism insurance premiums but are responsible for only a portion of the loss.

On the other hand, this also means that insurers have provided much more capacity to this market than they would have done otherwise, which was precisely the intent when TRIA was designed. Given the strong demand for terrorism insurance, this has been an important success of the program.

Sources: Erwann Michel-Kerjan and Paul Raschky. **The Effects of Government Intervention on the Market for Corporate Terrorism Insurance.** *European Journal of Political Economy*, 2011.

SECTION II. WHY ENDING TRIA WILL INCREASE TAXPAYERS’ FINANCIAL EXPOSURE TO TERRORISM LOSSES

Some have said that to limit (or avoid any) additional financial exposure of the federal government given the already historical government deficit, TRIA should be allowed to expire in 2014. Under this logic, market forces would lead to even more capacity being provided to the market and more firms being insured. Losses from a terrorist attack would be covered by firms and their insurers (if they are insured).

While the argument is nice in theory, it totally fails to account for the political reality and the now well-known political economy of catastrophe financing in America.

I have no doubt that the day after a large attack, it will become clear that many firms are uninsured or poorly insured because insurers would not be required to offer that coverage anymore and the price of that coverage without a free up-front federal backstop will simply be much higher than it is today to reflect the cost of capital insurers have to set aside to meet regulatory and rating agencies requirements (unless insurers cap their coverage to what they currently cover under their deductible and quota-share above).

Under extreme pressure from the media and interest groups, the federal government will be asked to step in. Americans taxpayers will de facto pay for most of the loss. This outcome is pretty certain as one looks at how much more involved the federal government has been at providing financial support after catastrophes and crises in the past decade than it used to be 50 or 60 years ago. If the attack occurs during an election year, this would be even more certain.

² President’s Working Group on Financial Markets, *Market Conditions for Terrorism Risk Insurance*, 2010. See also: Wharton Risk Center (2005). *TRIA and Beyond*. Philadelphia, PA; Kunreuther, H. (2007), Testimony before the Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises of the House Financial Services Committee, June 21.

Overall, the number of Presidential disaster declarations has dramatically increased over time, from 191 declarations over the decade 1961-1970 to 597 for the period 2001-2010. As Figure 1 also reveals, many of the peak years correspond to presidential election years. In 1996 and 2008 (both presidential election years) there were 75 presidential declarations. This record number was exceeded in 2010 when there were 81 major disaster declarations, and again in 2011 with 99 declarations.

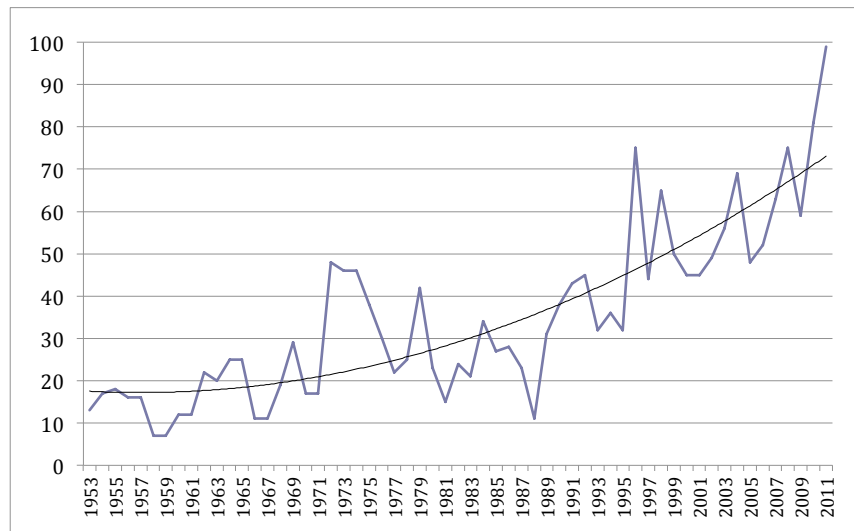


Figure 1. U.S. Disaster Presidential Declarations Per Year, 1953-2011 (data from FEMA)

And it is not just the number of declarations that has increased but the proportion of economic losses that American taxpayers are forced to pay. Table 1 shows the much more pronounced role of the federal government in assisting disaster victims and governments of affected areas by examining several major disasters occurring in the past 60 years. The most recent example is Hurricane Sandy: the federal government provided \$50 billion in emergency funds and another \$10 billion to the NFIP so it could pay all its claims—that is, 88% of the \$68 billion loss from Sandy.

Table 1: Role of Federal Government in Disaster Loss Payment

Disaster	Federal contribution to total loss payment
Hurricane Sandy (2012)	88%
Hurricane Ike (2008)	69%
Hurricane Katrina (2005)	50%
Hurricane Hugo (1989)	23%
Hurricane Diane (1955)	6%

This radical increase in government funding—combined with the highly mediatized bail-out of large American corporations during the recent financial crisis—is likely to set precedents and expectations of more funding to come in the future. This will be especially true for terrorism since it might be seen as a failure of our government services to prevent the attack. **The question thus is how do we best organize risk financing mechanisms ex ante so most of the loss does not fall on taxpayers; under its current design, this is what TRIA does. Reforms should seek to increase the private sector’s involvement without disturbing the market.** As I said before, I think there is room to do just that.

SECTION III. TERRORISM INSURANCE SOLUTIONS OUTSIDE OF THE U.S.

In this last section of my testimony I would like to provide some international perspective. While this has been somewhat absent in recent discussions about TRIA, this is important for several reasons: a) Terrorism threat is international by nature; b) Other countries are facing similar challenges as to how best use the strengths of the private and public sectors in developing a robust insurance scheme; c) Many large American corporations generate a significant part (if not the majority) of their revenues abroad and d) American firms compete with foreign firms which benefit from those programs in their home countries.

I will briefly highlight the solutions currently in place in five other countries that have suffered from terrorist attacks on their soil: Israel, Spain, France, the U.K. and Germany (chronologically, as they developed their program). I would like to thank the heads of programs discussed here for ongoing discussions and their insights in preparation of today's testimony. A visual comparison is then provided with Australia and India added in Appendix 1.

Of note, several of these programs are permanent in nature; those that are temporary have all been renewed with some modifications in recent years.

Israel: Government Coverage, No Involvement of Private Insurers

In this country with a long history of terrorist attacks, losses from attacks are compensated directly by the State according to a pre-defined formula. Any direct and indirect damage occurring within Israel due to war or hostilities will be covered by a *public compensation fund* legislated in 1961. The fund built from the general property tax collected across the country, according to regulations. Insurers do not cover this risk. Both individual and business compensation is provided to those who suffer from an attack. Businesses can also get compensated for workers' compensation and loss of business revenues.

Renewal and Government Exit Strategy. The program is permanent. ■

Spain: Government Coverage Sold by Private Insurers in its Behalf

Eligibility. Terrorism has been covered as part of the State-backed insurance compensation scheme for extraordinary risks (including also storms, floods, earthquakes, riots), by the 1954-established *Consortio de Compensacion de Seguros* fund. Coverage for these risks is included as an add-on to property insurance sold by private insurers who are not financially responsible for losses. The private sector has never expressed an interest in covering terrorism or these other extreme events. *Pricing.* Commercial enterprises pay 0.21 euros per thousand of property coverage and another 0.25 euros for business interruption to benefit from this state insurance against extraordinary risks.

Loss History. In the aftermath of the March 11, 2004 terrorist attacks in Madrid, the Consortio paid 41 million euros in claims (railway vehicles were not insured). The December 2006 attacks against the Barajas Airport triggered another 46 million euros in claims. These claims were rapidly paid by the Spanish catastrophe fund which currently has over 4 billion euros in reserve and has never used the State guarantee in over 50 years of operation.

Renewal and Government Exit Strategy. The program is permanent. ■

France: Public-Private Risk Sharing; Unlimited Government Reinsurance

From a legal perspective, the situation in France was especially acute in the aftermath of 9/11 because the 1986 law does not allow commercial property insurers to dissociate terrorism coverage from commercial property. To stop covering terrorism meant to stop covering commercial property at the 2002 renewals.

The GAREAT, a public-private partnership, was established in December 2001 as a co-reinsurance pool organized under a tier structure of risk sharing. It operates on an aggregate annual excess of loss basis.

Risk-Sharing Arrangement. The first layer presents an annual aggregate capacity of 400 million euros shared among all 205 members of the pool prorated to their share of ceded business. A second layer is provided by members (private insurers) and reinsurers up to 2.3 billion euros. Above that, the State layer is an *unlimited* guarantee by the French government provided through the Caisse Centrale de Reassurance (CCR), a state-owned reinsurance company. Since 2005, there is a special treatment for small risks (below 20 million euros of total insured value): the government grantee is triggered above 20 millions, GAREAT being responsible for the first 20 million euros.

Eligibility. Terrorism insurance is mandatory in France, so the take up rate is 100%. As of 2013 90% of the large commercial and industrial risks had been transferred to the pool and 12% of small risks for property damage and business interruption, including chemical, biological, radiological and nuclear (CBRN) attacks (GAREAT does not cover liability risks, personal accident, marine). Moreover, the same deductible is applied for terrorism as for other property coverage risk pricing.

Pricing. Reinsurance rates by the GAREAT do not vary with location: they are identical across the country. They apply as a percentage of the property premiums of the business ceded for different insured value segments: below 6 million euros (Automobile 0.10%; Homeowners 0.8%; Commercial and Industrial risks 1.20%; Farms: 0.60 %); between 6 million and 20 million euros the rates are 4% for each class of business. For sum insured above 20 million euros: 12% (between 20 and 50 million euros); 18% (sums insured higher than 50 million euros). For nuclear plants the rate is 24% whatever the sum insured are. GAREAT redistributes premiums collected from its members back to them if not used to pay claims.

Premium Sharing with the Government. The premiums levied by insurers against policyholders are transferred to the GAREAT and shared as follows: members of the pool keep nearly 44%, the reinsurance layers 44%, and the CCR receives around 12% of the total annual premiums collected.

Renewal and Government Exit Strategy. The pool was first set up for a single year with the option of being renewed, as was done in 2003 until December 31, 2012. **The program was renewed on January 1, 2013 for another 5 years. ■**

U.K: Public-Private Risk Sharing; Unlimited Government Debt Issuance

In the wake of the terrorist bomb explosions in London in April 1992, which cost insurers nearly \$700 million, and an announcement seven months later by British insurers that they would exclude terrorism coverage from their commercial policies, the U.K. established a mutual reinsurance organization, Pool Re, in 1993 for commercial property and business interruption to accommodate claims resulting from acts of terrorism.

Eligibility. The scale of 9/11 attacks in the U.S. led to a major revamping of Pool Re. Since the end of 2002, protection of companies operating in the U.K. under Pool Re has been extended to all risks, a category that now includes damage caused by chemical and biological as well as nuclear contamination (while war and related perils as well as computer hacking continue to be excluded).

Risk-Sharing Arrangement. Pool Re acts as a reinsurer for all insurers that wish to be a member of the pool; the U.K. Treasury in turn provides Pool Re with unlimited debt issuance that the pool will have to reimburse over time. Pool Re's right to draw funds under the retrocession agreement with the government is determined on a strict cash needs basis. That means that premium income earned by Pool Re during the time necessary for claims settlement, i.e. after a terrorist attack, will also be used to pay these claims, if necessary.

All insurers authorized to insure losses arising from damage to commercial property in Great Britain are eligible to apply for membership of Pool Re, regardless of their domicile. Most insurers operating in the U.K. commercial property market are members. As of September 2013, Pool Re has 221 members (73 insurers incorporated in the U.K., 37 Lloyd's syndicates, and 111 insurers incorporated elsewhere). They have an individual retention before being reimbursed by the pool which is based on their proportion of participation in Pool Re, applied to the "industry retention" (£100 million per event, £200 million per year in 2012).

As of September 2013, Pool Re has a reserve of nearly £5.0 billion, which would have to be exhausted before the British Treasury pays anything. If the government needs to intervene for insured losses above this, it will be reimbursed for that payment by the pool over time; and ultimately, the members of Pool Re will have paid *all* insured losses due to the terrorist attack.

Premium sharing with the government. Pool Re shares 10% of its collected premiums with the U.K. government to benefit from this coverage.

Renewal and Government Exit Strategy. Pool Re is not reviewed on any specific cycle, unlike TRIA. The contract has cancellation arrangements whereby either Pool Re or Government can withdraw (with notice, and conditions) but **no pre-set review period, or sunset in the legislation** ■

Germany: Public-Private Risk Sharing; Limited Government Reinsurance

As in other countries, until the events of 9/11, coverage against terrorism risk was included in all commercial lines in Germany without an explicit extra premium. After 9/11, the extremely limited availability of terrorism coverage led to the founding of Extremus AG, a federal government-backed property insurance corporation that started operations on November 1, 2002. Unlike Pool Re, Extremus is not a reinsurance institution but a private insurance company.

Eligibility. Extremus provides coverage for buildings, contents, and business interruption. But only risks with total insured value over 25 million euros are eligible for coverage. As in the U.S. and the U.K., companies operating in Germany are not required to purchase insurance against terrorism. The annual compensation by Extremus for any company is capped at a maximum of 1.5 billion euros. This means that a company with a total insured value of 25 billion euros can purchase coverage for only 6% of its total insured value from Extremus. A number of risks are explicitly excluded, such as nuclear

risks as well as biological and chemical contamination by terrorists, war and civil war, and insurrection. Losses due to computer viruses are also not covered. ■

Risk-Sharing Arrangement. The annual capacity to pay for claims is 10 billion euros. It is completely reinsured by national and international insurance and reinsurance companies (first layer limited to a total of 2 billion euros), as well as by the federal government (second layer of 8 billion euros). As of December 31, 2010, Extremus provided a total of 450 billion euros terrorism insurance coverage to 1,174 firms.

Premium Sharing with the Government. As is the case in France and the U.K., but not in the U.S., the reinsurance provided to Extremus by the federal government is not free of charge: the government receives approximately 12.5% of the premiums collected by Extremus.

This international review shows that different countries have responded to the question of terrorism risk financing differently, and that those responses were often modified after terrorist attacks on national soil.

Conclusion

Coming back to United States, several questions will be important as we now discuss the role that TRIA should play in the future, in a world where the nature of terrorism threat is in constant evolution. For instance;

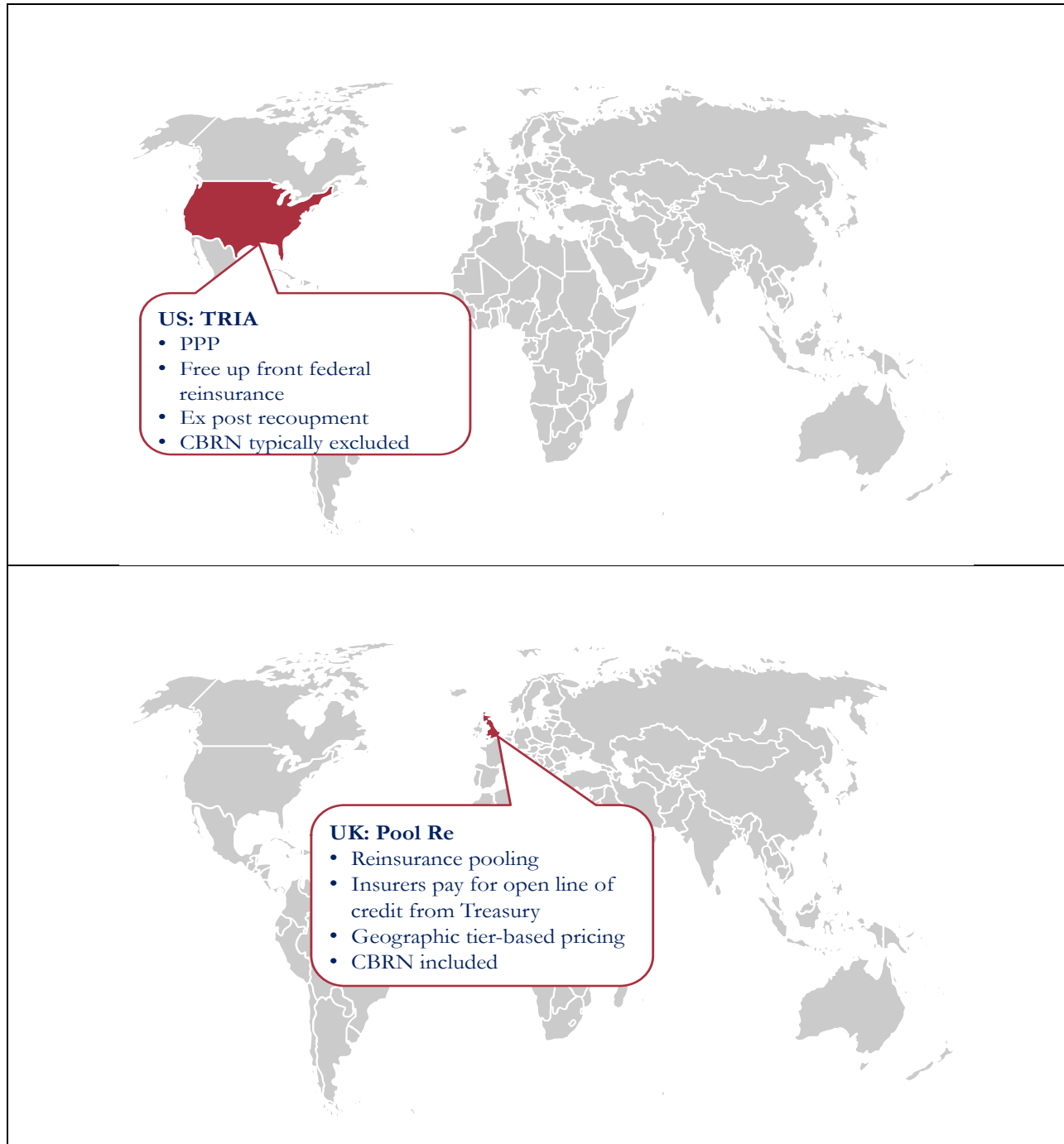
- Should CBRN terrorist attacks (chemical; biological; radiological and nuclear) be covered or not?
- Should cyber attacks be covered and if so, which ones?
- Should our federal government continue to provide free coverage or should it charge for it? If so, what would be seen as a “fair” premium?
- How involved are reinsurers in the U.S. terrorism risk insurance markets today? How much more capacity could they provide, at what level, and at what price? How is reinsurance capacity and price likely to change in the aftermath of a large terrorism attack?
- While TRIA focuses on commercial lines, who will pay for the losses to residents from a terrorist attack?
- How do we address the workers’ compensation challenge if TRIA expires?

In the end, it is how we best use the insurance infrastructure, in partnership with the government, to assure effective and equitable solutions are in place that will make our economies terror-proof. This is why the debate about TRIA is not just an insurance issue—it is as much a national security and economic competitiveness issue, too.

My colleagues and I look forward to working with Congress, the Administration, the insurance and reinsurance industry and other stakeholders in the near future.

I want to thank you again for the opportunity to testify here today. I would be happy to answer any question you may have.

Appendix 1. Terrorism Insurance Markets in Selected Countries (Sources: Author)³



³ For more on international terrorism risk insurance markets, see:

- Michel-Kerjan, E. and B. Pedell. (2006). How Does the Corporate World Cope with Mega-Terrorism? Puzzling Evidence from Terrorism Insurance Markets. *Journal of Applied Corporate Finance*, 18(4):61-75.
- OECD. Terrorism Insurance in OECD Countries, 2005;
- OECD. Terrorism Insurance in 2010: Where Do We Stand? Proceedings of the June 2010 conference, Paris;
- OECD. Terrorism Risk Insurance Markets in 2012.

Please visit: www.oecd.org/daf/fin/catrisks

