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TESTIMONY OF ERNEST N. CSISZAR
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"The Future of Terrorism Insurance: Fostering Private Market Innovation to Limit Taxpayer Exposure"

House Financial Services Subcommittee on Housing and Insurance
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My name is Ernest N. Csiszar and I am a former insurance commissioner from the State of South Carolina and former President of the National Association of Insurance Commissioners ("NAIC"). I am currently a Clinical Professor of Insurance at the University of South Carolina's Darla Moore School of Business and I am an Associate Fellow of the R Street Institute, a public policy think tank devoted to a free market economy. I also serve as a Director on the Boards of a number of property and casualty insurance companies, including a specialty company that underwrites Workers' Compensation coverage. I am also a member of the Board of Directors of a large infrastructure development company that purchases significant amounts of terrorism insurance coverage for its projects.

I am pleased to appear before you today so as to share my perspective on two different, albeit related, matters:

(1) Whether or not the Terrorism Risk Insurance Act ("TRIA"), as amended and currently scheduled to sunset at year-end 2014, should be extended or renewed; and

(2) Whether there are any legislative or regulatory measures that could be implemented to make the market for private terrorism insurance more attractive and enhance the growth of insurance-linked securities ("ILS").

I thank and commend Chairman Neugebauer for holding this important hearing and I welcome the privilege to address the Subcommittee on Housing and Insurance.

(1) THE RENEWAL OR EXTENSION OF TRIA

Let me state at the very outset that I favor the renewal of TRIA, albeit with some significant amendments. There are times when, even as a committed opponent of government intrusion, I must admit that a private market may have failed or may not become fully functional without some intervention by government. Terrorism insurance happens to fall into that category. I do not believe

that the insurance and reinsurance industries are ready to bear the entire burden of losses from one or more major terrorism events, particularly those committed by nuclear, biological, chemical, or radioactive means ("NBCR"), or some form of cyber-assault. Nor for that matter are the capital markets immediately ready to stand in place of TRIA for those types of risk. Terrorism continues to provide the most devastating, expensive, and disruptive loss scenarios imaginable and matters such as the current unrest in the Middle East and North Africa have only exacerbated the concerns with underwriting terrorism insurance within the insurance and reinsurance industries.

Nonetheless, genuine progress is being made in developing the private terrorism insurance market. Modeling has improved, underwriting is more nuanced, and there has been an influx of new private capital into the market. Capacity in the private market is up, competition is fierce and prices are down, and a sizable market for private standalone global coverage has developed. I am convinced however that a failure to renew TRIA in the face of the continuing unabated threat of terrorism – thereby eliminating the $100 billion federal backstop as well as the mandate to offer coverage – would lead to severe disruptions in availability, exclusion, and pricing. The risk of that occurring is simply too high. Reinsurers, in particular, can enter and exit a market freely as relatively unregulated entities. The industry tends to react to a shock by withdrawing capacity, exiting entirely from the impacted market, making prices unattractive to buyers, or excluding coverage. Dramatic price increases sometimes follow for other lines of business. And since there is no upper bound for terrorism risk losses[1], one could expect these price increases to be enormous.

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[1] As noted later in this testimony, Workers' Compensation insurance must be offered under State law without limits. Furthermore, some potential terrorist threats, such as the explosion of a nuclear device in the midst of Manhattan, are estimated to cost over $1 trillion.

Let me provide some additional perspective. TRIA was first put in place in 2002, and then amended in 2005 and extended in 2007. Post September 11, 2001, TRIA succeeded in preventing what would have been a prolonged and wholesale disruption in the market as many insurers and reinsurers were prepared to either withdraw from coverage, exclude coverage or invoke the war exclusion that most policies contained. Other lines of business would also have been impacted via price increases. That did not happen substantially because of TRIA which encouraged reinsurers to continue to back their insurer clients with the risk transfer mechanism needed to make TRIA work. For an insurer to be forced to offer terrorism coverage to its customers – as TRIA requires – the purchase of reinsurance is not an option. It is a necessity. It protects the company from insolvency and allows the company to continue to ply its trade post-event. Without reinsurance, there is no insurance! And it is not just any reinsurance that will do. Insurers need reinsurers who are committed to providing terrorism coverage – reinsurers that are well-capitalized, pay their claims quickly, and stand by their insurer clients without hesitation after a large catastrophic event.

Hence, the issue of whether or not to renew TRIA is first and foremost an issue that impacts reinsurers the most and it is to their potential reaction that this Committee must look if it were to take as dramatic a step as to recommend non-renewal.

So let's focus on reinsurance for a moment. Today, the threat of another major terrorism attack involving NBCR or some forms of cyber-attack continues to be among the most feared and potentially the most costly and devastating disasters faced by reinsurers. I think that I can fairly say that the industry does not treat terrorism as a matter of "if" – rather, a "when" and "how severe" and "how often" and "in how many places". Despite the continuing threat however, reinsurers have succeeded in attracting significant new capital since 2002, and particularly since 2007. And, as is the case after every

catastrophic event, the industry has managed time and again to find the capital lost due to catastrophes. The industry now has roughly $510 billion in total capital available and that capital has been increasing at the rate of 1% to 5% each year since 2006. $100 billion in new capital is expected over the next ten years. This, of course, is capital that must support many uses besides terrorism – and in many places other than United States. Terrorism is not the only line of business sustained by that capital. Reinsurers allocate capital to other lines as well whether it is auto, homeowners', liability and commercial. Nor is the United States the only place in which they do business. Reinsurance is a global industry, largely located off-shore. Thus, reinsurance capital allocations tend to move quickly to whatever lines or locations offer the most favorable conditions for returns on capital.

As a result, the reinsurance industry has been able to absorb the huge losses from September 11 and from many a natural catastrophe since then, and yet recapitalize lost capital quickly after an event. New capacity[2] seems to move in quickly after an event supported by expectations of improved pricing and higher profits. Interestingly however, to the benefit of consumers, these expectations rarely seem to materialize for very long as new capital flows in and competition for market share takes its toll. As a result, the industry has evolved to the point where paying for yearly catastrophic losses of as much as $20 billion to $25 billion seems to have become routine. Whether it is catastrophic fires and earthquakes in California and the American West, sinkholes and hurricanes in the Southeast or tornadoes, hail, and winter storms in the Midwest and the Northeast – these catastrophes have become a repetitive, predictable, annual ritual for the industry: it responds by paying for these losses without much of a blip in either availability or pricing. Losses of this size have come to be expected it seems.

[2] New reinsurers tend to enter the market with new capital. Within less than three months after Hurricane Katrina in 2005, for instance, eight new reinsurers with $8 billion in new capital had entered the cat market. Also, reinsurers formed sidecar facilities. $4 billion or more came in through these sidecars. Sidecars are capital facilities that are sponsored by reinsurers. Much like a quota-share reinsurance arrangement, an investor in a sidecar takes on a proportion of the risks for a limited category of policies, typically catastrophe exposures, for a limited period of time.

Specifically, even in the immediate aftermath of Hurricane Sandy, the second most expensive storm in U.S. history, property catastrophe reinsurance costs continued to decrease as a whole and for most reinsurance programs.

As for TRIA, the federal backstop continues to be the mainstay for domestic terrorism coverage in the United States. A sizable market for stand-alone commercial coverage has developed. That market tends to serve clients with broader global needs for terrorism coverage, self-insuring captive company clients, and clients interested in coverage up to the $100 million trigger. Since TRIA covers United States territory only, the commercial market also tends to cater to clients interested in both domestic and international coverage, frequently on a "difference in conditions/difference in limits" ("DIC/DIL") basis[3] grounded in a TRIA-based master policy.

In developing these stand-alone terrorism facilities, reinsurers are benefiting from the currently depressed global yields environment by being able to offer higher yields derived from terrorism coverage. It is worth a reminder though that the higher yields are also a reflection of higher risk for those institutional investors like pension funds, hedge funds, private equity, and specialist funds who invest in these facilities. Nonetheless, it has been reported that as much as $2 billion and more of terrorism coverage per client may be available in the private market, depending on location, accumulation, and concentration. Moreover, such new terrorism facilities in the billions of dollars are also being set up by others including brokers, and, hence not surprisingly, prices for customers with

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[3] DIC refers to a policy designed to broaden coverage by providing coverage for perils that are excluded on standard coverage forms or supplementing international policies that are written by admitted insurers in the applicable foreign countries. DIC policies are often used to fill the gaps between the coverage provided by a multinational organization's master insurance policies and coverage provided by policies purchased locally in accordance with each country's insurance requirements so that the organization has uniformity of coverage regardless of location. DIL, on the other hand, refers to a provision contained in a master international insurance program that provides coverage for the difference in limits between the limits of local underlying policies and the limits of the master international policy.

more than $1 billion of total insured value have dropped to median rates of $19 per $1 million, down from double and triple that rate in earlier years[4].

For those of us who ultimately favor private markets, these are clear signs of progress in the private market. Nonetheless, some words of caution are in order:

1. Not renewing TRIA would open $100 billion crater in the industry's capital structure. That's roughly a 20% hit to the industry's entire capital[5] – by any measure, a huge loss of capital that would have to be filled – and filled quickly at a time when forecasts for new capital over the next 10 years indicate $100 billion level.
2. Some potential - and almost unthinkably probable - terrorist attacks could be of such a substantial magnitude as to be beyond the pale of even as significant amount of capital as is currently available to the industry. Think of that nuclear device in the center of Manhattan. This is a particular problem for Workers' Compensation insurance which prevents the exclusion of terrorism coverage, mandates unlimited coverage, and prohibits the exclusion of nuclear, chemical, biological, and radiation ("NCBR") related coverage. This has broader economic implications regarding employment, jobs, and economic development, given that no business can operate without Workers' Compensation insurance.
3. It is difficult to tell whether the new capital that has come into the business is of a long-term nature or whether it is of the "quick in and quick out hot money" type driven by investors out for yield in an otherwise zero interest and nominal yield environment. With competitive forces at work, as new capital has come into the business, reinsurers have had a difficult time maintaining rates while protecting their individual market share and, as another sign, yields on

[4] See Marsh's "2013 Terrorism Risk Insurance Report".
[5] The ratio of cat losses to gross surplus is a good indicator of the ability to absorb losses from terrorism.

cat bonds, for instance, have been plunging and only time will tell how much of this capital is of a more permanent nature. Will the new capital will "stick" or exit in the face of ever-diminishing returns? That remains an open question.

4. It has also been suggested that a good proportion of this new capital comes from naïve investors who have yet to be tested by any significant losses. Cat bonds, for instance, have only been triggered three times out of 200 issues within that last fifteen years. Investors may lose interest if their capital were to be wiped out by a sufficiently large event.

5. Availability and pricing of insurance and reinsurance for catastrophic events depends heavily on modeling the frequency and severity of potential losses. The severity of terrorist events can be modeled reasonably well. The problem lies with frequency. Mother Nature is reasonably predictable. Human beings are not. The intervention of human agency in terrorist events makes frequency essentially unpredictable[6]. Moreover, it leaves little room for ex ante mitigation measures, given that an event could occur anywhere. The problem is further complicated by the fact that models without good data fall into the category of "garbage in, garbage out". Clearly for good reasons, the best data and information regarding the likelihood and impact of a potential terrorist event lies with the intelligence and law enforcement agencies and is unavailable to reinsurers[7]. Unfortunately, that only complicates the modeling process so vital to providing terrorism insurance coverage.

6. Natural catastrophes are "low probability – high severity" events, the proverbial fat-tail events or "black swans". Terrorism is not like other tail risk. It is arguable that terrorism presents the industry with "high probability – high severity" events perhaps on a multiple venue and

[6] Although some experts believe that human behavior can eventually be modeled via game theory, mathematical power laws and chaos theory, these scientific efforts remain in their infancy.

[7] The types of attacks that do occur, or are aborted or interdicted, would provide good information pertaining to vulnerability of targets, target selection and potential multiple target attacks, and generally speaking, to the terrorists' modi operandi.

sequential basis, events that are ultimately uninsurable without some form of government program of last resort. Indeed, most other OECD states have had government-backed terrorism insurance pools for twenty years or more, though with a wide variety of intervention mechanisms.

Based on these thoughts, I make the following suggestions to this Committee:

1. Renew TRIA – renew it for a long enough period to avoid uncertainty in the near-term and long enough for some of these issues to play themselves out, 5 to 10 years perhaps. Private markets, as history has proven, sometimes take as much as a generation or two to develop. But raise the $100 million loss trigger significantly - perhaps to as much as $20 billion or $25 billion– in line with the routine payouts for other types of catastrophic losses. This would also bring the TRIA program in line with loss triggers in the private markets for industry loss warranties ("ILW") [8]. There is simply no good reason to keep the trigger at its current low level.
2. Raise the horizontal deductible from its current 20% to 40% of the past year's direct earned premium for the commercial lines subject to TRIA and raise the quota share cost-sharing arrangement for insurers from 15% to 25% of losses that exceed an insurer's deductible, in recognition of the increase in capacity in the industry since 2002 and in the evolution of a private stand-alone market since then. This might also stimulate additional private mitigation efforts.

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[8] As an indicator of a more realistic trigger, in the private market, for instance, a typical ILW usually triggers at $20 billion in industry-wide losses. Industry loss warranties (ILW) are financial instruments which pay off when the industry-wide losses from a catastrophe exceed a certain industry loss index. While lower triggers of $10 billion and $15 billion are available for purchase, they can be very costly. Hurricane Sandy provides a good example. On March 22, 2013, Property Claim Services (PCS) issued its loss estimate for Sandy, falling just short of the typical ILW trigger of $20 billion in estimated insured losses. The storm was a close call for many ILW with $20 billion triggers. Sandy has actually set in motion a rethink of the entire ILW trigger structure, given that it was no more than a Category 1 storm and, upon reaching land, more like a tropical depression.

3. Charge a risk-based price for providing the backstop. There is no reason for not collecting an actuarially sound premium for the government's willingness to continue to provide the $100 billion federal backstop. Government – taxpayers, that is - should be compensated for the service.
4. Use a portion of the industry's premiums, or other funds available to Treasury, to invest in risk transfer, including reinsurance, catastrophe bonds or other vehicles. This initiative would protect taxpayers and support the growth of the terrorism risk market, encouraging private investment in models, data sets and other capabilities. Also by accessing the private market, the program would facilitate risk validation and third-party views of exposure, the efficacy of mitigation initiatives and the effectiveness of prevention regimes.
5. Each of these suggestions could of course be introduced on staggered basis over all or part of the renewal period.

(2) IMPROVING THE ATTRACTIVENESS OF TERRORISM INSURANCE MARKETS AND ENHANCING GROWTH IN THE ILS MARKETS

Reinsurance is but one market for the transfer of risk for an insurer. Another option lies in the capital markets, with investors assuming the risk via ILS. The two transfer mechanisms operate alongside and complement and supplement each other. Given the liquidity, depth, and resilience of global capital markets, they are by far the most effective means for pooling, transferring and diversifying risks of all kinds, including insurance risks. In the past 25 years, they have played an increasingly more prominent role by innovating new ways to transfer risks.

ILS either securitize insurance risks [9] or transform such risks into derivatives. They are ideally suited for catastrophe financing. ILS include catastrophe bonds, exchange-traded catastrophe futures and options, catastrophe swaps, non-indemnity types of derivatives such as industry loss warranties as well as collateralized reinsurance products written on an indemnity basis and transformed into securities. Some of these instruments are liquid and some are not. Some are private and over the counter, others are exchange-traded. Some ILS provide for up front funding while others pay ex-post with no up front funding. While no ILS specific to terrorism coverage have been issued, increased capacity in the ILS catastrophe market would likely generate a flow-over of additional capital allocations to terrorism insurance.

ILS now make up over 15% of the property catastrophe reinsurance market[10]. From a risk standpoint, the capital markets and rating agencies typically treat them akin to high-yield corporate bonds (e.g., junk bonds). By far the most common and liquid ILS is the catastrophe bond. $40 billion in cat bonds have been issued in the last ten years with about $19 billion currently outstanding. That may not seem like much when you consider the industry's total cat exposure of about $300 billion in potential catastrophe-related claims. Nonetheless, the numbers reflect impressive growth, given that ten years ago that figure was a mere $4 billion. Indeed, a small niche market has become a major supplier of capacity to insurers and reinsurers alike. And if forecasts are correct, today's amount is expected to quadruple again within the next decade. There is also evidence that substantial additional risk is being funded through ILS instruments other than cat bonds[11].

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[9] Typically, a sponsoring insurance or reinsurance company – or it could be a corporation (e.g., Disneyland and Universal Studios transactions) or a state (e.g., Mexico's earthquake issue) – enters into a financial arrangement with a Special Purpose Vehicle (SPV) and, in exchange for a transfer of premiums to the SPV, the SPV assumes the payment of claims. The SPV invests these premiums in high quality instruments and, in turn, issues notes to investors who receive a stream of payments based on risk and use of funds.

[10] See PwC's 2013 "Expanding the potential of ILS" report.

[11] Given that most of these are private, over the counter transactions, the evidence is anecdotal.

While equity and hedge funds were among the early movers into the ILS market, there has been a recent surge of interest from investors with longer-term time horizons such as pension funds, mutual funds, and wealth managers. Some of these entrants are much larger than reinsurers are and, hence, have a much greater ability to absorb greater volatility and more severe losses. Apart from increased yields derived from larger risk premiums, ILS offers investors access to a largely uncorrelated asset class[12], thereby enhancing the potential for diversification. There is also a relatively healthy secondary market. Reinsurers both participate and compete with ILS. Not surprisingly, between new reinsurance capital and ILS, reinsurance premiums have been forced down by 15% this year alone.

Each ILS requires a bankruptcy-remote Special Purpose Vehicle ("SPV") and, while sponsors and investors are mostly from the United States and Europe, the Cayman Islands have become the domicile of choice for these SPVs[13]. In recent years, the Caymans have passed legislation that makes them more attractive for both SPVs and investors. They have also developed a regulatory environment specific to these types of transactions which recognizes the sophistication and higher risk appetite of customers that operate in these markets. Moreover, these types of transactions are often fully collateralized, and hence the fees are high and the capital requirements are usually low[14]. From a fiscal standpoint, SPVs typically receive pass-through treatment as the investment income accumulated within an SPV is intended to be paid out to future claimants.

The use of off-shore SPVs by U.S. entities can be explained by a number of reasons: (1) restrictive GAAP and statutory accounting treatment, resulting in disparate treatment between ILS and reinsurance; (2) taxation issues; (3) uneven and inhibitive state insurance regulations, especially regarding credit for

[12] Unrelated to the more traditional fixed income and equity instruments that is.
[13] Cayman is the domicile of choice for over 90% of all catastrophe bond related SPVs.
[14] Capital can be as low as $500, though regulators typically adjust that based on the specifics of the bond issue.

reinsurance provisions; and (4) reserve treatment. For instance, the NAIC model legislation permits an insurance company to set up an on-shore SPV for an ILS but then, unlike the case for traditional reinsurance, prevents a credit to capital until the bond is triggered and the sponsor is indemnified by the SPV. Traditional indemnity-based reinsurance, on the other hand, reflects the transfer of risk as credit to capital immediately upon signing of a reinsurance contract. To add a further complication, a NAIC model law is nothing more than a recommended law – not every state adopts these models, either uniformly or in their entirety. Hence, regulation from state to state is uneven, a very costly and inefficient route for what is in essence a one-time event for each SPV.

The NAIC has also adopted a Special Purpose Reinsurance Vehicle (SPRV) model law, allowing on-shore special purpose reinsurers to issue insurance-linked debt to back up a reinsurance program. The model law however only applies to cases that employ an indemnity-based trigger. Unfortunately, many transactions employ non-indemnity triggers and these are treated purely as additional debt, without any credit to capital whatsoever.

Regulatory certainty in the U.S. is even more opaque when exchange-traded insurance derivatives are involved where many State regulators have not even addressed to issue. Not surprisingly – and to the detriment of the U.S. -the popularity of going off-shore!

In light of the above, I would suggest the following with a view to facilitating the development of the ILS market:

1. Initiate a review[15] of all legal, regulatory, accounting and fiscal treatment of insurance-linked securities and derivatives with a dual aim to develop a soup-to-nuts platform for issuing ILS on-shore and provide for appropriate accounting, regulatory, and fiscal treatment based on the risks inherent in the various types of instruments. Issues to be addressed could include a separate licensing facility for SPVs, equal accounting and regulatory treatment between reinsurance and ILS where warranted based on risk characteristics, exemptions from the Frank-Dodd legislation and the Federal Reserve systemic risk provisions; clarifying bankruptcy remoteness; exemptions from consumer protections which are not relevant in this context, and so on.
2. Overall, ILS would also benefit from a uniform, a sensible regulatory framework. NAIC model laws, of course, do not have the force of law in any U.S. jurisdiction. Although many states adopt laws following NAIC models in whole or in part, it always remains to be seen how many states will adopt them eventually and at what pace. Reports at the Spring National Meeting 2013 indicate, for instance, that 11 states have adopted revisions to their credit for reinsurance statutes and/or regulations to implement reduced collateral requirements mandated by the Dodd-Frank legislation and modeled in the NAIC's amendments to its Credit for Reinsurance Model Law and Regulations ("Amended Credit for Reinsurance Model Act"). Twelve (12) others have indicated their intention to do so, leaving the remainder of the states without any position on the matter at this time. As regards full implementation, only Florida and New York have actually approved any reinsurers for collateral reduction at this time. Moreover, even when the NAIC passes a model law of regulation, states are at liberty to make changes at the local level, thereby replacing intended uniformity with a "hodge podge" of local variations. Some argue

[15] See the GAO's 2002 report entitled "Catastrophe Insurance Risks: The role of risk-linked securities and factors affecting their use" and subsequent GAO 2003 report "Catastrophe Insurance Risks: Status of efforts to securitize natural catastrophe and terrorism risk".

that the situation would change if the NAIC were to make model laws a condition of state accreditation, in which case all states almost certainly would adopt them in full and without change. But then again, changes to NAIC accreditation standards generally take four or more years to become effective. Real change in a timely manner at the State level to develop attractive ILS markets is therefore unlikely. Given that ILS are in the nature of capital market instruments, federal legislation may well be appropriate.

3. Pass through taxation treatment[16] - which eliminates taxation at the SPV level and thus avoids double taxation—with favorable implementing requirements could facilitate expanded use of ILS and, as a by-product, increase the flow of private capital into the terrorism market.

As for making reinsurance more attractive:

1. Allow for the use of reserves for catastrophic events. For insurers and reinsurers, a more favorable fiscal treatment of catastrophe (including terrorism) or equalization reserves[17] may increase the availability of traditional insurance/reinsurance. In its 2005 report, the GAO noted some discrepancies between the U.S. and European fiscal treatment of catastrophe reserves[18]. A number of European countries allow insurance companies to establish tax-deductible reserves for potential losses associated with catastrophic events, although each country differs in the way it allows reserves to be set-up and used[19]. In the U.S., on the other hand, catastrophe reserves are not tax-deductible. Tax-deductible reserves would offer several potential benefits: they would provide insurers and reinsurers with financial incentives to increase their capital and expand capacity without endangering solvency or contractual commitments. They would also

[16] Much like the mortgage industry is permitted to do through the use of Real Estate Mortgage Investment Conduits ("REMICs).

[17] These are long-term *reserves kept for* the purpose of preventing cash-flow depletion in the event of significant unforeseen catastrophes, including terrorism events.

[18] See GAO 2005 report entitled "Catastrophe risk: U.S. and European approaches to insure natural catastrophe and terrorism Risks".

[19] Germany, France, Italy, Spain, Switzerland, and the United Kingdom all allow tax-deductible reserves.

lower the costs of catastrophic coverage, including terrorism in all likelihood. Opponents have noted that permitting insurers to take *ex ante* tax-free reserves may open the door to deceptive or even fraudulent accounting. At the very least, the issue warrants serious study.

To conclude, I wish to thank Chairman Neugebauer for this opportunity to comment at this hearing and I look forward to working with the members of this Subcommittee towards a resolution of these issues. Thank you!