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AMERICAN ACADEMY *of* ACTUARIES

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August 27, 2012

Michael McRaith  
Director  
Federal Insurance Office  
U.S. Department of the Treasury  
1500 Pennsylvania Avenue NW  
Washington, DC 20220

*Re: Public Input on the Report to Congress on the U.S. and Global Reinsurance Market*

On behalf of the Reinsurance Committee of the American Academy of Actuaries<sup>1</sup>, I submit the attached comments pursuant to the request for comments published in the Federal Register on June 27, 2012 (*Public Input on the Report to Congress on the U.S. and Global Reinsurance Market*).

If you have any questions, please submit them to Tina Getachew, senior policy analyst, Risk Management and Financial Reporting Council, by phone (202-223-8196) or email (getachew@actuary.org).

Sincerely,

Jeremy Starr  
Chair, Reinsurance Subcommittee  
Risk Management and Financial Reporting Council  
American Academy of Actuaries

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<sup>1</sup> The American Academy of Actuaries is a 17,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

The nature of reinsurance and how it affects insurance in the US are complex subjects. The fundamental nature of insurance is the spreading of risk across a large enough population to make the pooled risk more predictable and thus more cost effective than other ways of mitigating the risk (i.e., risk pooling—combining the uncertainty of single risks into a calculable risk for a large group). Reinsurance provides a method by which insurers can obtain risk protection against adverse financial results from the insurance policies they have sold. Reinsurance can be thought of as a secondary insurance market that enables the sharing of insurance risk by separate entities, even if those entities are based across national borders. In certain markets reinsurance is not offered by US reinsurers, and non-US reinsurers often step in to fill the void.

## **1. The purpose of reinsurance**

Reinsurance provides a commercial service—the transfer of unwanted risk to insurers similar to that provided by insurers to consumers by pooling risks. Reinsurance:

- Protects insurers’ surplus from risks that they cannot prudently afford to retain (“retention limit”); and
- Frees up a portion of the capital that would otherwise have been dedicated to the business being reinsured.

The reinsurer absorbs the risks that it assumes up to its risk tolerance level (“reinsurer’s retention limit”). Amounts in excess of the latter amount may be reinsured by a “reinsurer-to-reinsure” (“retrocessionaire”). By reinsuring, the insurer is removing not only risk from its balance sheet, but also the variance in potential earnings from these risks. Low frequency / high severity claims have the highest variance and thus have the greatest need for reinsurance. To reduce the variance as a percent of premium, an insurer could underwrite more policies. In some situations insurers plan to increase their sales over time to reach the point of diminished variance, but need reinsurance until that time. For some risks, though, it may be impractical to write sufficient business to diversify the risk in such a way. One such example is catastrophic risks from hurricanes where insurers cannot achieve appropriate levels of variance in potential outcomes without reinsurance.

As indicated above, risk pooling is a basic function of insurance. This function reduces risk and provides for risk sharing. This basic pooling function also underlies reinsurance. Among many other categories of why insurers seek reinsurance, some primary reasons are:

- **Premium Capacity:** In some states and on certain lines of business an insurer is constrained to maintain leveraged ratios of the Net Written Premium (NWP) to Policyholder Surplus (PHS), at roughly a 3:1 ratio. If for example, an insurer has \$5,000,000 of PHS and is currently writing \$15,000,000 NWP, it is limited with respect to writing any additional business. However, if a percentage of its business is reinsured (“Quota Share” reinsurance) it would be allowed to write more business. Continuing with this example, if the insurer bought a 25% Quota Share reinsurance contract on \$20M of premium insured, the reinsurer would receive \$5 million (25% of the \$20 million) in premiums leaving the insurer with NWP of \$15M, thereby protecting its NWP to PHS ratio.

- **Individual Risk Capacity:** Reinsurance can provide an insurer with the capacity to write a larger policy limit than it would without reinsurance. For example, the insurer may determine \$600,000 of risk to be within its risk tolerance, but it needs to offer \$1,000,000 limits to be competitive in the marketplace. It could utilize a \$400,000 excess of \$600,000 Excess per Risk (XPR) reinsurance treaty. With this reinsurance arrangement in place it is able to write the \$1,000,000 policy. The additional risk capacity is supplied by its reinsurer(s).
- **Catastrophe Protection:** Every region of the country is susceptible to some form of natural disaster with catastrophic potential such as hurricanes, tornadoes, earthquakes, hail, fire, flood, etc. Manmade disasters such as riot and terrorism also expose insurers to catastrophic loss. Thus, all companies writing property business have a catastrophe exposure. Reinsurance is one mechanism to absorb the catastrophic loss potential.
- **Stabilization:** Insurers, like other enterprises, strive to maintain stable, profitable results. This is particularly important for publicly traded insurers whose stock price is influenced by quarterly earnings reports. Major swings in results either positive or negative are difficult to budget and can cause major disruptions in the insurer's operations. Reinsurance is one mechanism that can help to stabilize results and reduce the potential for large unexpected losses. This usually entails giving up some profit in good years (due to the premium paid to the reinsurer) for protection from losses in the bad years; but overall, insurers' results are stabilized.

In order to better illustrate how reinsurance works, examples of each of these categories are needed. Two examples of when reinsurance is purchased are, first, prior to any policies ever being sold and, second, after sales commence to provide catastrophe protection (e.g., hurricane). How reinsurance is bought varies as well. In some instances an insurer decides to reinsure all policies above some per insured amount. At other times an insurer may not have seen a particular type of risk before and will therefore buy reinsurance from a more knowledgeable reinsurer. The material below will give further insight into the nature of reinsurance.

### **When is reinsurance purchased?**

In order to meet the needs of their clients, insurers need to be able to write a wide variety of policies. The variation in types of policies could include differences by age, sex, amount and type of insurance protection and risk characteristics presented by an insurer's potential clients (e.g., unhealthy people applying for life insurance, or a property insurer with a heavy concentration of insureds in Florida). With reinsurance, an insurer can:

- Sell to a wider variety of risks (e.g., larger policies, policies with a higher likelihood to make a claim, etc.). Whatever amount of risk is in excess of what the insurer can retain can be provided by the reinsurer. In turn this will attract agents who see that the insurer can handle all of their business. Selling more business means:
  - More policies to spread overhead costs and therefore better unit costs.

- Less variation in profit as a percent of revenue.
- An insurer offering a new line of business will attract more agents, since a wider array of risks can be protected by this insurer. A reinsurer who has experience in this new line can help the company develop the products and then reinsure them too.

It is often the case that without reinsurance in place, the policy would either not be sold or sold at a higher premium. The pooling of risks allow insurers, with no increase in capital, to write more business, leading to a wider base to spread costs over which can lead to a lower cost product for the consumer. For this reason, it is often not appropriate to view an insurer's net premium as the gross premium less the reinsured premium. The insurer, in absence of reinsurance, would rarely offer the gross premium on a standalone basis. In these circumstances, the premiums written by the insurer only make sense on a "net" basis.

As indicated above, another reason to buy reinsurance is to protect against large catastrophic events. These events could be as bad as a Category 4 hurricane hitting a large population center or a massive 1918 sized pandemic. Catastrophes for an insurer could also be more localized like an earthquake or a plane crashing. Insurers, who are large enough to write most any risk they want on a per sale basis, may still want to buy reinsurance to cover these large events.

Yet another reason for an insurer to buy reinsurance would be to cover potential losses caused by a significant increase in the number of claims. In this situation an insurer might only buy insurance that covers losses that are significantly greater than their business plan allows. As an example, an insurer assumes an anticipated level of losses in their business plan and buys reinsurance to cover losses greater than 130% of that expected level.

### **How is reinsurance purchased?**

For life insurance products it is typical that reinsurance is designed and an agreement on reinsurance terms is completed as an integral part of product planning with the intent of it being in place prior to a policy ever being sold. As part of the agreement negotiations, the parties (insurer and reinsurer) will: determine the desired amount of reinsurance and its cost; assure the regulatory acceptability of the terms of the reinsurance agreement; and determine the retained binding authority (the amount an insurer can place without the prior approval of the reinsurer); among other terms. With this coverage in place, the vast majority of the business that an insurer does not want to retain is sent automatically to the reinsurer.

An insurer may buy reinsurance on a case-by-case basis. This is most typically done when an unusual applicant is being reviewed. The reinsurer has likely seen more of these cases than the insurer. In these instances, the insurer might consult with its reinsurer on how to understand the risks in the case. Sometimes that will result in the insurer being comfortable with the case and retaining all of it, but at other times the insurer might buy reinsurance on all or a portion of the policy.

Some insurers are comfortable with the typical kind and amount of risk they retain, but are concerned about catastrophic events. A reinsurer could then provide protection against such

events as large losses due to an act of nature (e.g., hurricane, earthquake, pandemic, etc.) or due to human actions (e.g. plane crashes, terrorism, etc.). This type of reinsurance protection allows the insurer to maintain the vast majority of profits (and losses); with reinsurance providing protection only if some large unusual event occurs.

## **2. The breadth and scope of the global reinsurance market**

North American insurers represent approximately half of the global demand for reinsurance. So to paraphrase Willie Sutton, an infamous bank robber who robbed banks “cause that is where the money is”, global reinsurers come to the US because that is where the demand is. And US insurers turn to global reinsurance for the capital and risk capacity that the world can provide.

According to several surveys, roughly half of US Property & Casualty (P&C) reinsurance is purchased directly from foreign reinsurers. As the level of risk increases, the likelihood of a foreign reinsurer providing a portion of the protection increases. Foreign reinsurers provide reinsurance on US P&C business about two thirds of the time. The primary jurisdictions of these foreign reinsurers are: United Kingdom, Other EU countries, Switzerland, Japan, Australia, and Bermuda.

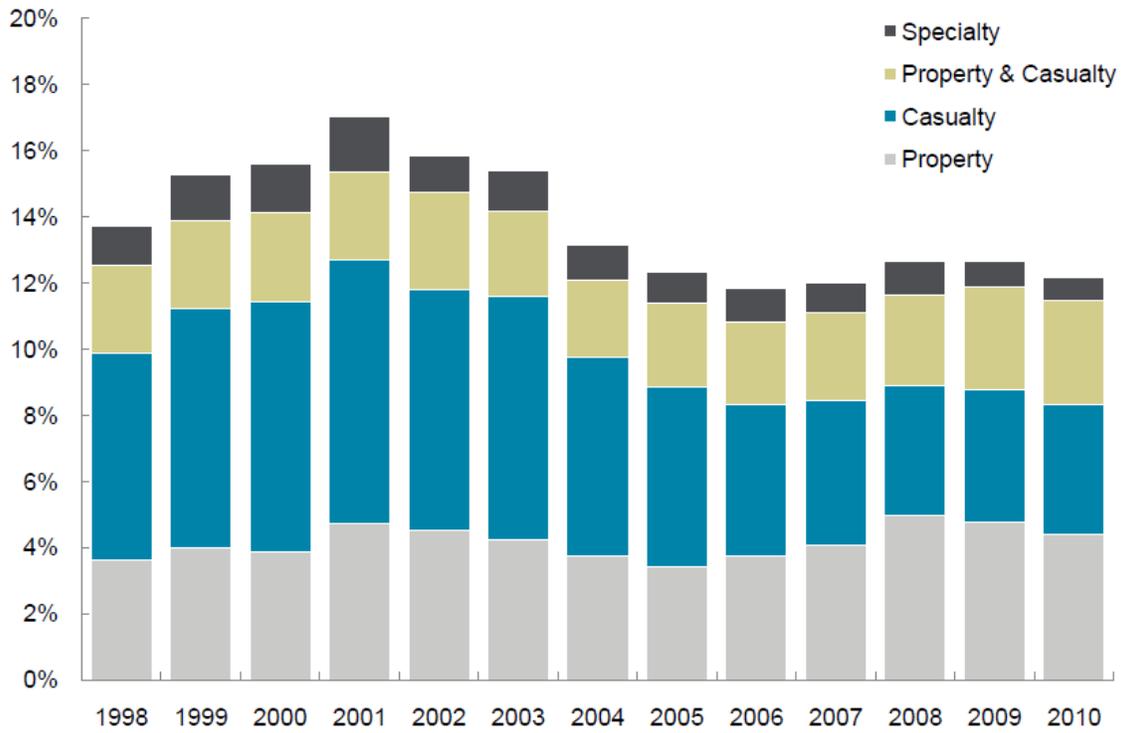
Exhibits 1 and 2 give some further insights into the Property and Casualty Reinsurance market. Exhibit 1 shows:

“U.S. insurers have, for the last decade, decreased their reliance on reinsurance. Reinsurance for casualty business shows the largest decrease as U.S. insurers have continued to raise retentions. Reinsurers provided real value to insurers of casualty business over the long-term; however, during the last decade, reinsurers missed what turned out to be a very profitable opportunity by not aligning with insurers on key assumptions about declining frequency and reasonable severity. The lack of alignment destroyed material demand for treaty casualty business. The value proposition of property reinsurance remains strong globally and insurers and reinsurers are well positioned to grow this relationship.”<sup>2</sup>

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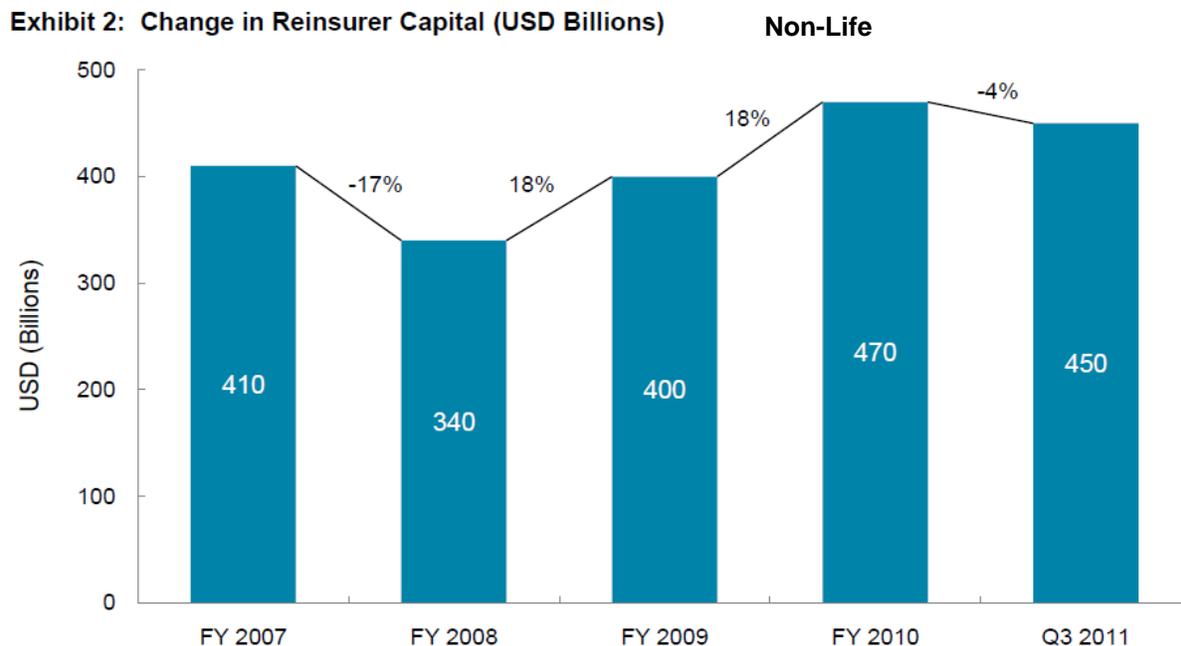
<sup>2</sup> According to Aon Benfield, a division of Aon plc (NYSE: AON)

**Exhibit 1: U.S. Ceded to Gross Written Premiums Non-Life**



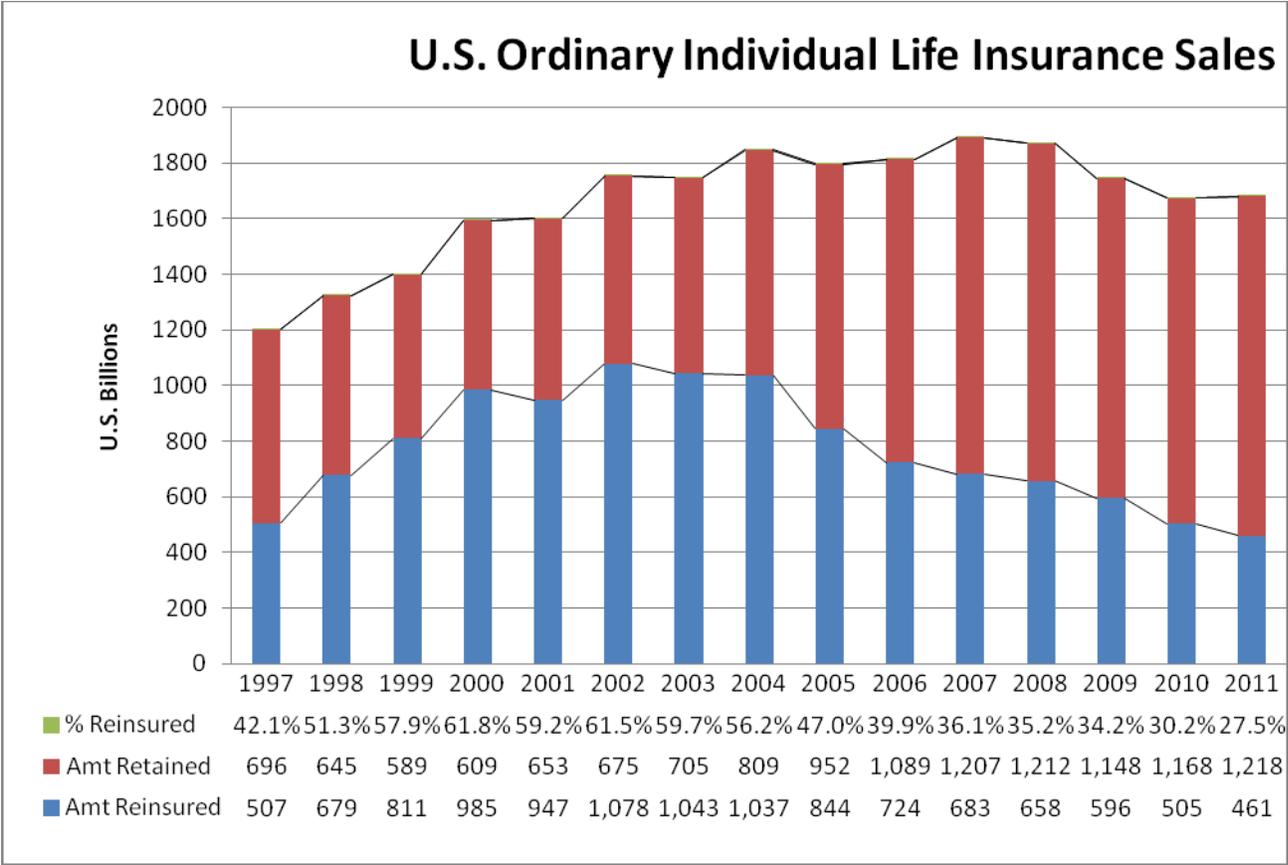
Source: Aon Benfield Analytics

Exhibit 2 demonstrates that there is ample capacity in the reinsurance market to cover global catastrophes.



Source: Aon Benfield Analytics

For life insurers, Exhibit 3 shows there was a large increase in business ceded to US life reinsurers in the late 90's through 02, but cessions have been in decline since then. This increase was caused by the desire to reinsure a new and less familiar product that was also very capital intensive. By reinsuring these risks, the insurers gained access to both the reinsurer's expertise and a ready source of capital. Once companies were more familiar with the product and were able to raise capital in other ways, the demand decreased. The demand also decreased because the reinsurers were no longer able to offer a complete solution (i.e., risk and capital), as they had already invested as much capital as they felt prudent in this one product. Because of regulatory constraints, US life insurers use US domiciled reinsurers for the bulk of their reinsurance needs (see answer to question 4, below for more information regarding this point). (Note: many life reinsurers domiciled in the US and serving the US market are subsidiaries of foreign parents).



**3. The role of the global reinsurance market in the United States**

The prominent participation of foreign headquartered reinsurance groups (either directly from a foreign entity or through US subsidiaries) in the US market allows for additional risk sharing and for the spread of capital that is allocated to paying claims. The reasons for this include the diversification of risks that global reinsurance affords. When a reinsurer with multinational clients provides coverage for a US insurer it combines and diversifies that risk into a larger pool and with risks from other parts of the world. Size in insurance typically provides greater relative stability in result. And while one part of the world is experiencing high claims, the US may be experiencing average to low claims, or vice versa. This results in more capacity to service US risks. The additional capacity may increase the amount of insurance that can be written or provide US consumers with types of insurance protection that might otherwise not be available.

Also, depending on the nature of the reinsurance provided, some risks may correlate negatively and, thus; offset each other in whole or in part. For example, even a UK reinsurer whose primary business is providing monthly checks to pensioners could offset some of its longevity risk by reinsuring life insurance policies, thereby taking on mortality risk. While the particular exposed lives differ, reinsuring US life insurance risks will typically provide some amount of risk offset.

For all these reasons of size, diversification and capital capacity, reinsurance is a global business. The 2010 Financial Sector Assessment Program (FSAP) audit by the International Monetary

Fund (IMF) of the US regulatory system stated that “58% of all premium ceded to reinsurers by US insurers is to markets in Europe and Bermuda (85%, if non-US affiliates of US companies are included).”

An example of the economic benefit is related to major catastrophes. For Hurricanes Katrina, Rita and Wilma, only 41% of the benefits were paid by US insurers and reinsurers, with the rest being paid by foreign reinsurers (Bermuda and European reinsurers in particular).

Another area in which the global reinsurance market may benefit the US market is with regards to new products. In other parts of the world there are insurance products that are not sold at all or not widely sold in the US. For those products that might fit a US insurer’s market, the reinsurer can provide advice on considerations for pricing, underwriting and expected policyholder behavior. An example of this is Critical Illness Protection. First started in South Africa, the product is meant to provide cash between the time a diagnosis is made and the primary coverage starts (e.g., disability insurance often has a period where the insured must be sick prior to receiving benefits). This process results in potentially providing the US public with new ways to buy protection for the risks to which they are exposed.

#### **4. The effect of domestic and international regulation on reinsurance in the United States**

In order to preserve the ability of insurance entities to share risk, a regulatory regime needs to be in place that facilitates the proper function of the reinsurance market. How this is instituted varies by jurisdiction.

US regulations place certain stringent requirements on reinsurers. First, there are rules that determine when risk is passed to the reinsurer. With life insurance statutes and regulations require that all the risks of a policy must be covered in order to receive an insurer’s desired accounting treatment. This limits the types of insurance that may be offered. In addition, foreign reinsurers must post funds equal to a significant percentage of their future expected claims in order for their covered insurers to get the desired accounting treatment.

Contrast this with the European Union, where countries within the European Economic Community cannot require collateral among member states or between nonmember countries where the regulatory environment is deemed equivalent. As of now, the only EU countries that require collateral for nonequivalent jurisdictions are France and Portugal. The EU has not ruled on whether it considers the US regulatory system equivalent.

The International Association of Insurance Supervisors (IAIS) has issued several (re)insurance papers that are used as worldwide regulatory standards. When the IMF audits a country’s insurance regulations, it uses the IAIS papers as a basis of the audit. In its last FSAP analysis in 2010, the IMF found that of the 28 IAIS Insurance Core Principles (ICP), the US system of regulation observed 11 ICPs, largely observed 14 and partially observed 3. For each of the ICPs that were not deemed fully observed the IMF made recommendations for changes that should be made prior to their next audit. This has led to the National Association of Insurance Commissioners (NAIC) establishing working groups to develop model laws or other mechanisms to address , by 2014 (time of next audit), the recommendations. The report did not

make comment on reinsurance regulation per se, but did indicate that prior approval of many reinsurance agreements could be “an ineffective use of supervisory resources.” It also noted that while foreign reinsurers are free to do business with US insurers directly, “[the insurer] may not attract credit in the primary insurer’s financial statements.” Other comments on reinsurance such as supplying examiners with educational material, appropriate solvency triggers, among others, were generally favorable to the US regulation of reinsurance.

## **5. The role and impact of government reinsurance programs**

Government or government-sponsored reinsurance programs are sometimes used when private companies are unwilling or unable to provide the reinsurance that the market demands. After September 11, 2001 the US federal government stepped in to provide some level of support to the reinsurance market for insurers facing/underwriting terrorism risk<sup>3</sup>. This type of program was also offered in other jurisdictions. This action facilitated frozen reinsurance markets to more comfortably reopen on a business-as-usual-basis. The market was frozen because insurers in that climate of uncertainty had no sense of the terrorism risk that the US was exposed to at that time and had no data to anticipate what to expect.

In this way the government provides capacity where the private market either doesn’t want to because it cannot price the business or it cannot obtain the rate to make the risk worth bearing. An example of the latter is Citizens Property Insurance Corp. where the state of Florida set up a not-for-profit reinsurer to provide property insurance to those who cannot find coverage elsewhere. Other markets where the US government has played a role and continues to play a role are in crop and flood insurance.

## **6. The coordination of reinsurance supervision nationally and internationally**

No comment

## **7. Any other topics relevant to this report.**

Suggestions for additional reference materials:

[IAIS Global Reinsurance and Financial Stability Report](#)

[IAIS Global Reinsurance Market Report 2010](#)

[Guy Carpenter Report: Catastrophes, Cold Spots and Capital](#) – January 2012

[SOA Reinsurance News](#) – July 2012

[Reinsurance](#) by Robert W Strain

[Life and Health Reinsurance](#) by John E Tiller

[NAIC Accounting Practices and Procedure Manual – Statement of Statutory Accounting](#)

[Principles 61 and 62, Appendices 785 and 791](#)

[Financial Accounting Standard 113](#)

[NAIC Statement of Statutory Accounting Principles 61 and 62](#)

[IAIS Insurance Core Principle 13 – Reinsurance and Other Forms of Risk Transfer](#) (note other ICPs may also have useful information about reinsurance)

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<sup>3</sup> Terrorism Risk Insurance Program enacted through the Terrorism Risk Insurance Act (TRIA) of 2002