



Natural Catastrophe Risk: Creating a Comprehensive National Plan

DRAFT

Introduction

Natural disasters take a heavy toll on Americans each year. According to a recent report by the Government Accountability Office (GAO) regarding the response to Hurricane Katrina, the United States is not well prepared to deal with large natural disasters either in how we manage emergency response or in how we manage the financial aftermath of these devastating events. It is clear that Americans need to be more prepared for natural disasters both logistically and financially; including with insurance.

Background

There have been several significant natural disasters in recent years that captured the nation's attention. The following figures adjusted to reflect the 2004 value of the dollar, with the exception of the 2005 storms. In 1989 Hurricane Hugo caused \$6.4 billion in insured losses to South Carolina. In 1992 Hurricanes Andrew devastated Florida resulting in \$20.9 billion in insured losses. In 1994 the Northridge Earthquake in California cost insurers \$15.9 billion. In 2004, four major hurricanes made landfall in Florida and other gulf coast states. These four 2004 hurricanes are among the ten most costly U.S. hurricanes in history. Hurricane Charlie caused \$7.5 billion in damages, followed by Ivan (\$7.1 billion), Frances (\$4.6 billion) and Jeanne (\$3.7 billion). The most costly hurricane ever is Katrina in 2005 with insured loss estimates approaching \$40 billion or more. Two other hurricanes in 2005—Wilma and Rita—pierced the top ten with estimated losses at \$7.2 billion and \$4.7 billion respectively.

To date, all of this devastation has been handled either by the insurance industry or by the states and the federal government in the case of the uninsured or underinsured. However, these catastrophic losses have caused insurers and public policymakers to ask, "What comes next?" Insurance regulators and some insurers wonder if the industry has the capacity to deal with the next major natural disaster.

What Comes Next?

While Hurricane Katrina was devastating, catastrophe modelers have identified a number of possible natural disasters that could be much worse. Among these extreme events would be a repeat of the 1906 San Francisco earthquake with potential damages estimates reaching \$400 billion; a repeat of the 1900 Galveston hurricane with \$36 billion in possible damages; a repeat of the 1938 Category 3 hurricane that hit the Northeast with possible damages exceeding \$300 billion or a repeat of the series of earthquakes that struck the New Madrid Fault in 1811 and 1812 with potential economic damages of up to \$275 billion with insured losses reaching \$100 billion. All of these and many more scenarios are possible. Should any one of them occur, we are unprepared to deal with the aftermath of an event of this magnitude.

What Can Be Done?

The insurance industry and its regulators can make a difference. Many residential properties are overly exposed to many natural disasters and cost-effective steps should be taken to reduce exposure to

catastrophic losses and mitigate potential damages. Insurers can provide incentives for this crucial activity by providing credits for homes built to comply with responsible building codes or existing homes that are retrofitted to withstand natural forces. In addition, the way insurance benefits are delivered to the public needs to be changed. Requiring a person to buy multiple insurance contracts to cover their homes and belongings clearly is not efficient and is not what the public wants. Multiple policies lead to problems at the time of the claim settlement. Clearly, having disputes over whether a loss is attributable to wind or water is not what the public has in mind when they purchase insurance for their homes. Policyholders simply want to buy a policy that provides them with peace of mind and pays for their loss, less some reasonable deductibles or co-payments, when a natural disaster causes damage to their homes. The insurance industry needs to find a way to meet those expectations.

The time has come to consider offering a policy that meets the expectations of the public and avoids many of the pitfalls that have been observed following recent catastrophic events. Consideration should be given to offering an all-perils policy which would include the offer of coverage for hurricane, earthquake, tsunami, volcanic eruption and flood, subject to the traditional exclusions and coverage limitations. Following a loss, the policyholder should be assigned a single adjuster who is knowledgeable regarding the policy, terms and coverages, and who is empowered to settle the claim fairly and promptly.

The insurance industry cannot be expected to provide all of this broad coverage without adequate financial backstops for the most extreme events. This paper outlines some of the steps that regulators and state legislators believe must be taken in order to build a comprehensive plan that addresses the needs of the public and provides some certainty to the insurance industry that funds will be provided to help them help the public when the big one occurs. Some of the nation's most exposed residential customers are experiencing difficulties with both the availability and affordability of insurance and future catastrophic losses will only worsen this situation.

Past Congressional Efforts to Address Catastrophe Losses

There have been many proposals considered by Congress over time to address various types of catastrophic loss. Since the early 1970s, only three Congresses (the 98th through the 100th—1983 to 1988) have failed to consider significant natural disaster legislation. Nevertheless, the only federal program currently operating is the National Flood Insurance Program (NFIP) that is part of the Federal Emergency Management Agency (FEMA). The performance of the NFIP in recent years has been subject to much criticism. Further, the GAO heavily criticized FEMA for its part in the emergency response effort related to Hurricane Katrina.

Currently there are a number of bills that have been introduced in the 109th Congress. Representatives Ginny Brown-Waite (R-FL) and Clay Shaw (R-FL) have introduced the Homeowners' Insurance Availability Act of 2005 (H.R. 846). This bill instructs the Treasury to implement a reinsurance program offering reinsurance contracts that would be sold at regional auctions. Representative Brown-Waite is also working on the Homeowners' Insurance Protection Act (H.R. 4366) that would establish a national commission on catastrophe preparation and protection and authorize the sale of reinsurance contracts backed by the federal government to eligible state catastrophe funds. Representative Mark Foley (R-FL) has introduced the Policyholder Disaster Protection Act of 2005 (H.R. 2668). This bill amends the Internal Revenue Code to permit insurers to establish tax-deductible reserve funds for catastrophic events. It has been referred to the House Ways and Means Committee.

On November 18, 2005, Congress to significantly increased the borrowing authority of FEMA to pay flood insurance claims, just days after the agency was forced to halt payments because it ran out of money in the aftermath of Hurricane Katrina. The House by unanimous consent agreed to changes made by the Senate to H.R. 4133 that would temporarily raise to \$18.5 billion the amount of money FEMA is allowed to borrow from the Treasury for the NFIP. Earlier in the day, the Senate passed the bill, after boosting the borrowing authority in the previous House version. The bill next goes to the president for his signature.

Also on November 18, 2005, the House Financial Services Committee voted to increase the borrowing authority for the federal flood insurance program to \$22 billion to help cover claims from Hurricane Katrina and other recent disasters. By voice vote, the panel approved H.R. 4320 that would increase the coverage limits for flood insurance and make other changes intended to boost protections for the NFIP. The Committee also adopted an amendment by Representative Gary G. Miller (R-CA) that would direct the Government Accountability Office (GAO) to study whether Congress should require flood insurance for home and business owners living in areas with a moderate risk for floods. Under current law, only homes in certain high-hazard areas must buy flood insurance. They also adopted by voice vote an amendment offered by ranking Democrat Representative Barney Frank (D-MA) that would add employees to FEMA to comply with the bill. The flood insurance measure would also increase the maximum coverage limits for flood insurance policies to \$335,000 for residences and \$670,000 for churches and businesses. Under the current program, policies only cover up to \$250,000 and \$500,000 for homes and businesses, respectively. This has been an issue with homeowners living in more expensive dwellings. Other provisions in the flood insurance bill would provide business interruption coverage to companies affected by floods, increase to \$2,000 the fines for failure to enforce mandatory purchase requirements and require FEMA to report on how it plans to repay the Treasury for funds borrowed to pay covered claims.

Alternative Solutions to Managing Catastrophic Risks outside the US

Both within the US and across other developed economies a variety of programs have been created to manage the economic consequences of catastrophic events. These programs differ in their structure based on underlying premises regarding the nature of the risk. As such, the resulting roles of the private insurance market and government entities vary considerably across programs. The GAO report “U.S. and European Approaches to Insure Natural Catastrophe and Terrorism Risks,” GAO-05-199 published in February 2005, provides a thorough description of these various approaches.

Public policy frequently enters the debate as to whether or not a specific type of natural catastrophe is an insurable risk. Here in the US, it was decided in 1968 that flood was not an insurable risk and this resulted in the creation of the National Flood Insurance Program. Interestingly, other countries do consider flood an insurable risk. Indeed, both France and Spain have created risk pools for mandated natural catastrophe coverage that result in the state assuming the risk on an unlimited basis.

On the other hand, many natural catastrophes are considered insurable as a matter of public policy and government is used sparingly to facilitate the private sector mechanism. Perhaps the most common tool available to the private sector to support its ability to insure against losses due to natural catastrophes is the ability of the insurer to set aside reserves to pay for future catastrophic losses on a tax-deferred basis. While differences do exist in how these reserves are structured and monitored, they are common

throughout the world. As a measure of their perceived importance, a recent International Accounting Standard ruling (accounting guidance that is followed by most of the rest of the world with the exception of the US at this point) would have done away with this reserving mechanism; However, virtually all European nations, along with a number of other jurisdictions, chose not to adopt this new rule.

The US does not currently allow insurers the option of establishing tax-deferred pre-event reserves to fund catastrophe losses; although a number of variants of a tax-deferred reserve have been developed since Hurricane Andrew in 1992.

A second tool used to support industry's ability to respond to catastrophic losses found in many nations is a "risk pool" that is funded by private insurers but managed by the government. In Switzerland, for example, coverage for all natural catastrophes, with the exception of earthquakes, is mandated in property insurance policies. Private insurers, as well as state-owned canon specific insurers, pool these risks together and an average actuarial rate is determined and charged by all insurers.

A National Residential Program for Insuring Catastrophic Risk

In February 2005 the Catastrophe Insurance Working Group (CIWG) of the Property Casualty (C) Committee of the National Association of Insurance Commissioners (NAIC) held an interim meeting in Orlando, Florida to consider the state of catastrophe readiness for the US insurance industry and to begin to develop a comprehensive national plan for managing catastrophic risk. The following paragraphs describe the results of this meeting.

A white paper was drafted and then exposed at the working group's meeting during the NAIC's 2005 Spring National Meeting. Comments and feedback were provided to the working group at the NAIC's 2005 Summer National Meeting. At that time the working group decided it was appropriate to hold a half day mini-summit to hear from all interested parties at the following working group meeting in September 2005. Due to hurricane Katrina, the NAIC 2005 Fall National Meeting, as well as the mini-summit were cancelled.

During the same time, a number of State Insurance Commissioners (notably California, Florida, Illinois and New York) began discussion and work on a proposal to provide suggestions that would help ensure a stable, long-term solution to the catastrophic risk problem facing the US. A summit was held in November 2005, at which a framework was offered, a number of insurance and catastrophe experts provided information and a dialog of ideas occurred. As a result of the interactions, the framework was modified and is being brought forward. The current framework is not dissimilar from the concepts developed by the CIWG.

The current plan, which is multifaceted, is based upon several guiding principles:

- A national program should promote personal responsibility among policyholders;
- A national program should support reasonable building codes, land use development plans, and other mitigation tools;
- A national program should maximize the risk-bearing capacity of the private markets, and;
- A national plan should provide quantifiable risk management to the federal government.

The current plan envisions two layers of risk-bearing capacity before the federal government, which is represented in the third layer, becomes financially involved in paying for catastrophic losses resulting from natural disasters.

The First Layer: The Insurance Contract, Enhancing Capacity and Shaping the Risk

Enhancing the Insurance Contract

Policyholders are not generally sophisticated consumers of the insurance product. There is ample evidence however that policyholders do have an expectation that their residential insurance policy will, net of a deductible, indemnify them in the event of damage to their home, regardless of the cause. To that end, the current insurance contracts being offered in many areas frequently deliver an unpleasant surprise to policyholders, usually after a catastrophic event, regarding what is and what is not covered. An alternative suggestion that would be more in line with consumer expectations would be to offer a policy that provides coverage for all perils; with the exception of the traditional property exclusions such as losses to property as a result of: ordinances or laws; power failures; property neglect; acts of war; nuclear hazards; intentional losses; and governmental actions.

To further meet the expectations of consumers who wish to be fully insured for natural disasters, the policyholder should be given a mandatory offer of purchasing an all-perils policy. If the consumer does not feel the need to insure against a specific risk at the price being offered by the insurer, the consumer can then decide which coverage(s) they wish to purchase and which they do not wish to purchase. Consumer sovereignty would be particularly important with regard to the decision of coverage for natural disasters. Exclusions and coverage limitations should be disclosed and explained prior to purchase of the policy. Subtleties such as whether flooding was caused by wind-driven water, storm surges or rain-induced flooding should be eliminated so the consumer will clearly know what coverage is being purchased. Policyholders should also be required to acknowledge the impact of changes to coverage on the policies they purchase. At some point in the future, consideration may be given to changing the mandatory offer feature as proposed in this paper, to a mandatory coverage of these perils.

The offer of natural disaster coverage should be made available in the basic property insurance contract; regardless of whether it is financed in the private or public sector. This means that flood risk should be maintained within the NFIP program; which hopefully will incorporate the operational and structural changes that are currently being suggested in federal legislation. Thus, the choice of purchasing coverage for natural disasters would lie with the consumer.

However, one exception should be made to the consumer option. For those properties financed with a federally guaranteed mortgage (whether the guarantee is explicit or implicit), natural disaster coverage should be mandatory for those properties located in areas of moderate to high risk of catastrophic events. This may be expressed, for example, as a return time boundary; for example, maybe mandatory in 1 in 250 year areas for flood and earthquake and 1 in 100 year areas for catastrophic hurricane. Individuals with federally guaranteed mortgages are receiving a sizeable subsidy from the US government in the mortgage and so it seems only fair to the American taxpayers providing the subsidy that the individuals

who receive this benefit be required to purchase insurance to protect the property from the damage and destruction of catastrophic natural disasters.

The policy could contain a fixed dollar deductible for non-catastrophic losses and could require a separate deductible for declared catastrophic losses resulting from natural disasters based on a percentage of insured value. For an additional premium, a policyholder could choose to purchase a lower catastrophe deductible. The policies including the offer of coverage for natural disasters would be available, up to insured value, for homeowners insurance, condominium owners insurance, renter's insurance, as well as apartment building and condominium association policies.

Flood insurance will be an included peril offered with the contract so the consumer would have only one insurance company and one claims adjuster to work with in the event of a loss. However, the risk of flood would remain with the NFIP with the NFIP acting as a reinsurance program that would provide coverage to insurers for flood losses on a first dollar basis, minus the applicable deductible. Premiums for flood insurance coverage would be risk-based. Insurers would not be expected to subsidize flood insurance losses.

Developing A Comprehensive Mitigation Program

Research and empirical evidence show clearly that the benefits of mitigation can be profound in terms of reducing insured losses in the face of a catastrophic event. Consumers should be educated about how specific mitigation efforts can increase property values and instill piece of mind knowing their property is better able to withstand the forces of nature. State and local governments, along with the insurance, construction, real estate and mortgage industries can be utilized to provide such education to both current homeowners and prospective homebuyers.

Mitigation policies should provide property owners with meaningful mechanisms for effective mitigation measures. These mechanisms could include such things as low interest loans, grants and premium credits for mitigation efforts to upgrade existing properties, strengthening and enforcing building codes for new properties and improved and thoughtful land use regulations in the development and redevelopment of communities located within hazard-prone areas. Policyholders should be further encouraged to invest in effective mitigation through a modification of the US Tax Code to allow tax credits against federal income taxes for investments that better protect property from natural disaster losses.

At the core of the proposed plan is the need for a comprehensive program to establish and implement effective mitigation and land use plans among the states. Clearly, this is not a "one-size fits all" endeavor; different natural catastrophes require different mitigation considerations. That is why implementation of this basic building block is best left to the states; mitigating for hurricanes in Florida requires a different set of tools and techniques than mitigating for flood along the Mississippi or Platte Rivers, or for tornadoes in Oklahoma, or earthquakes in Missouri.

The evidence establishing the importance of mitigation is clear. The NFIP has determined that repetitive flood structures represent an inordinately high percentage of their flood claims over the years. The recent Florida hurricanes provided stark evidence that homes built or retrofitted to modern building codes stand up, while those not built to modern codes largely do not. Most recently, some media reports

have suggested that 40 – 75% of the wind damage from hurricane Katrina could have been avoided if the homes had been built to modern building codes.

Despite the evidence on the effectiveness of mitigation and the outreach by the Institute for Business and Home Safety (IBHS, www.ibhs.org) and the Federal Alliance for Safe Homes (FLASH, www.Flash.org), one of the primary challenges facing a long-term solution is the ability to make this information part of the economic decision-making processes that are made by builders and consumers. A competitive market requires an informed consumer and consumers need to be made aware of the options available to them when building or buying a home.

While efforts to make coverage clear in the insurance contract and to convey the relative cost/benefit of mitigation are important, it is also critical to make this decision part of the property owners' decision calculus. Just as consumers now demand airbags and side-impact curtains in their automobiles, the ability to quantify the disaster resistance of a home could be made to be more integral to the decision making process. In one domestic example, a program in Oklahoma (see '<http://www.fema.gov/mit/saferoom/>' for more information) has been promoting the benefits of having a safe room for shelter from tornados in Tulsa, OK. This program has been quite successful; to the point where now homes in the area without a safe room have become less marketable.

A more ambitious example of this kind of outreach can be found in Japan with respect to the earthquake exposure of residential properties. A public policy decision to make earthquake insurance (the program is actually for damage compensation; a form of insurance) widely available and used in Japan began in 1964 following the Niigata Earthquake. Today, in Japan there is a functioning public/private partnership between the Japanese property insurance industry, offering the policies, and the Japanese government, providing a form of reinsurance backstop. The system was revised in 1980 to further encourage participation by mandating that earthquake insurance be included on residential policies on a mandatory offer basis; although, the consumer may decline coverage.

The most recent revision to the earthquake insurance system came as a result of the Hyogoken-Nanbu earthquake (Kobe, Japan) in 1995, which resulted in 70,000 claims totaling over ¥70 billion (approx. \$700 million US in 1995) and triggered the first government reinsurance program payout. In the aftermath of this earthquake the earthquake insurance program was modified to provide economic incentives to encourage the building of earthquake resistant residences. This was done by introducing discounted premium rates based on a building's earthquake resistance with discounts based on a housing performance indication system under Japan's Housing Quality Guarantee Law.

Under the current, voluntary system, premium rates for earthquake insurance are a function of the geographic region where the property is located, the construction of the residence, and the earthquake resistance grade identified above. Using data from 2004, for example, the base premium rates are determined by construction and location as:

Zone	Non-Wooden Structure	Wooden Structure
1	¥0.50	¥1.20
2	¥0.70	¥1.65
3	¥1.35	¥2.35
4	¥1.75	¥3.55

Note: *Rates are per ¥1,000 insured value.*

Based on the historical earthquake record in Japan, and resulting earthquake risk, the nation is divided into 4 zones. Base premium rates are then determined for each zone based upon whether or not the home is a wooden structure. As a result of changes in the building code implemented in 1980, an automatic 10% discount is given for homes built after 1981. Further discounts, ranging from 10 to 30%, are provided based on the type of earthquake resistance according to a 3-class system, defined in 2004 as:

- **Class 3** (sufficient earthquake resistance to prevent destruction or a collapse by a force 1.5 times the seismic force indicated in the Building Standards Law), **30%**;
- **Class 2** (sufficient earthquake resistance to prevent destruction or a collapse by a force 1.25 times the seismic force indicated in the Building Standards Law), **20%**; and
- **Class 1** (sufficient earthquake resistance to prevent destruction or a collapse by the seismic force indicated in the Building Standards Law), **10%**.

There are significant differences between the US insurance contract and the Japanese earthquake system. Primarily, the focus of the Japanese system is not on indemnity, but rather on economic recovery; to that end, and much like the NFIP, the recoverable amount is capped on residential earthquake policies. Secondly, the Non-Life Insurance Rating Organization of Japan, not the competitive market, determines rates. Finally, the insurance covers property and contents, but does not provide for additional living expenses.

The plan also contemplates a program that offers a seal of safety and quality to certify mitigation efforts and specific building code enforcement on properties. Such a program will provide a basis for insurers offering premium credits as well as offering existing and prospective property owners information about the property and its ability to withstand losses that arise from natural catastrophes. The concept of a building grading program or certification process was discussed at several Task Force meetings. Assigning a hurricane resistance grade or certification to a property at the time of construction or resale could enable the purchaser to make a more informed choice regarding an investment decision in a property. When combined with the mitigation credits and other educational initiatives offered in S.B. 1486, the hurricane resistance of a structure would become an integral part of the purchase decision.

Creating Meaningful, Forward Looking Reserves

To further expand the capital base available for underwriting property risk, insurance companies should be allowed to set aside, on an objective formulaic basis, some portion of the premiums paid by the policyholders into a reserve for future catastrophic events. This ability will require a modification of the US Tax Code to allow insurers to establish these pre-event reserves on a tax-deferred basis.

The NAIC through its CIWG, led by Florida, developed a model plan in 2000 and has had it available pending such time as it was felt there was an appetite in Congress to amend the Internal Revenue Service Code. Rep. Mark Foley (FL) has offered a reserving plan bill for the last several years. His current bill, H.R. 2668, offers amendments to the Tax Code that allows insurers to voluntarily create pre-event reserves on a tax-deferred basis subject to a cap.

While the mechanics of the bill are different than the NAIC proposal, they share many of the same features. First, reserves are calculated using a specific formula based on the amount of business an

insurer writes in those lines of insurance that will be affected by a catastrophic event. This structure minimizes the opportunity for inflating reserves arbitrarily as a tax management tool. Second, when a cap is reached, additional reserve contributions are fully taxed or drawn down back into the income stream. Similarly, if an insurer leaves the business, the accumulated reserves are taken back into the income stream on a fully taxable basis. Additionally, both bills have a 20-year phase in period to accumulate the maximum reserve. And finally, use of the reserves is limited to events officially declared as a disaster.

The NAIC proposal is state specific with regard to the reserve calculation; the Foley bill is based on aggregate line of business calculation. The NAIC proposal has an aggregate industry dollar cap; the Foley bill does not. The current proposal is consistent with Rep. Foley's bill. If it is introduced details can be addressed during committee hearings.

The Second Layer: Beginning the Public/Private Partnership at the State Level

State Catastrophe Funds and Limits of Responsibility

Each state is required to decide whether its exposures to natural catastrophes warrant the creation of either a state catastrophe fund, participation in a regional catastrophe fund, or participation in a single or multi-state mechanism to collect funds from any national catastrophe backstop mechanism. Some states may determine that the private market does have the ability to provide the necessary coverages and a fund is not warranted.

Participation in a State or Regional Catastrophe Fund Option

The funds would be responsible for creating and managing the insurance capacity of their respective jurisdictions. The actual operating structures of the catastrophe fund employed are left to the fund's discretion to best fit their catastrophic risk exposures and insurance markets. The funds will be required to:

- Choose the appropriate financing mechanism to achieve the goals of the fund.
- Choose the appropriate definition of a qualifying catastrophic loss event and trigger point (if any).
- Determine the appropriate retention amount between private insurers and the state fund and the participation by surplus lines companies and residual market mechanisms.
- Ensure that premiums for the chosen level of participation are actuarially sound in the aggregate.

Mandatory Requirements of States

Regardless of whether a state determines a need for a fund or not, all states will be required to finance a level of mitigation education and implementation programs that best meet the needs of its citizens. All states will be required to:

- Establish effective building codes that properly reflect their catastrophic exposures as well as the latest in accepted engineering and science.
- Develop high hazard land use plans where appropriate.
- Maintain a rigorous anti-fraud program in order to ensure that the claims being paid are actually the result of insured catastrophic loss.
- Establish and implement effective mitigation plans.

The Third Layer: The Role of a National Mechanism

Scope of Involvement

This last layer involves the potential for a limited use of the federal government to assist in implementing a public/private risk pooling mechanism. The purpose of this layer would be to provide primarily a mechanism for spreading the timing of catastrophic event insured losses. To that extent, the plan only considers insured losses.

The true costs of a catastrophic event include significant losses that are outside the private insurance contract and for which the federal government will always be responsible as part of its basic role in society. Though not specifically a part of this national catastrophic plan, federal sponsorship of low-cost loans and/or block grants for pre-event mitigation and post-event recovery should be seriously considered.

The National Catastrophe Insurance Mechanism

No other issue in the current debate has polarized the regulatory community, the industry, consumer groups, legislators and other parties involved in the process as widely as the question of how we should finance and insure against future catastrophic risks.

On the one hand, many in the insurance and reinsurance industry aver that there is more than sufficient capital capacity to cover the current demand for natural disaster insurance, and that there is no need for public sector involvement. They suggest that any type of government intervention may have the unintended consequence of damaging the private market.

On the other hand, other evidence and testimony suggest that there are likely levels of catastrophic natural disaster losses that are of sufficient magnitude to impair, if not implode, the private insurance market and proceeds to outline a level of optional state or regional support, via catastrophe funds, and then a level of federal reinsurance back to these state or regional funds.

The central point of the debate appears to be whether or not there is a sufficient ongoing supply of capital available in the private insurance/reinsurance market to provide coverage for natural disasters without significant market disruptions or failures. The answer to this question is complicated by the fact that the “size” of the market is ill defined and information needed to develop a reasonable answer has been difficult if not impossible to acquire.

At the June 2006 meeting of the NAIC's CIWG, survey data from the reinsurance industry was submitted that suggested there was approximately, exclusive of individual insurer retentions, around \$55 billion total capital available to support catastrophic risk. With the inclusion of primary insurer retentions, the estimated available capacity is about \$95 billion globally.

It does seem to be true that under the current system and types of coverage, capital in the aggregate is available to support the risks currently being written in the market. Although there also appear to be disruptions in the flow of capital, and more recently a number of insurers are scaling back on the amount of the current disaster risk they write across the country.

If the offering of disaster insurance is modified along the lines of our recommendations above, and with the most recent evidence on the willingness of the private market to write disaster risk, it is likely that the "true" answer to this question may well be somewhere between no public involvement and total public involvement.

To fully address these important issues, a national debate needs to occur that involves all stakeholders in the issue. Currently, Senate Bill 3114 and House Bill 5891 call for the creation of Natural Catastrophe Commission. Further, the NAIC has adopted a resolution supporting the creation of such a Commission.

Congress should establish this Federal Commission immediately, with an initial charge to complete an inventory of the disaster prone insurance markets in this country, and to establish the degree of any needed public support. In its analysis, the Commission's focus should be on determining reasonable levels of public support along with the appropriate form of the support.

The current debate seems to be focused on setting any public trigger and attachment points at levels just short of bankrupting the private sector firms. Given the dynamics of the market and the possible economic devastation that would result from setting these imprecisely measured levels incorrectly, it seems that finding a reasonable level of public support (with some level of safeguard included) is a more prudent approach.

If the Commission finds that there is a need for a public/private partnership to insure against catastrophic natural disasters, a solution meriting consideration would be a layered approach as recommended here. That is, the first layer responsibility would lie with the private markets and any state or regional mechanisms. That layer would in turn be supported by the federal reinsurance at a level established by the findings of the Federal Commission.

In its least complicated form, this approach to a federal reinsurance operation seems to be an economical solution. An entity created by the Federal Commission would provide reinsurance to the state or regional funds. States without a fund would not be eligible for this reinsurance unless it elected to purchase federal reinsurance in a manner established by the federal government. In return for the reinsurance, states would be obligated to adopt adequate disaster response and management mechanisms and enforce reasonable building code, land use, and mitigation efforts to minimize the amount of insured loss for a given event. As the federal reinsurance premiums would be risk based, the price mechanism would again be the tool of choice to encourage active development and enforcement of these standards. Losses beyond the federal reinsurance layer would, like now, be financed out of the general Treasury.

Other Considerations

As part of its recommendation of this plan, the NAIC should undertake several new charges. While not necessarily a precondition to this plan, the charges below are integral to the task of enhancing capacity to the residential property insurance market.

The NAIC should create a work product that addresses perceived roadblocks within the Tax Code and within SEC regulations that are seen as impediments to the private market's ability to more fully utilize financial market structures to transfer catastrophic insurance risk from the insurance industry to other willing and informed investors.

The NAIC should expand its current review process to consider any changes to statutory accounting that, while still consistent with statutory accounting principles, may also encourage catastrophic risk transfer to the financial markets.

The NAIC should establish a best practices standard for its membership regarding disaster emergency response and planning.

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