



DRAFT: January 11, 2007

Overview of the Potential Insurance-Related Impacts of Climate Change on Insurance Regulators

Introduction

Global warming and the associated climate changes that global warming brings about, whatever the cause, will be a real challenge for Americans. As regulators of one of the largest American industries, insurance regulators will need to review all aspects of insurance regulation with a view to making the significant changes that will be necessary as a result of this challenge. As an initial step in this process, the NAIC has formed the Climate Change and Global Warming (EX) Task Force. The Task Force is charged with, among other duties, the responsibility of drafting an overview of the potential insurance related impacts of climate change on insurance consumers, insurers and insurance regulators. At its meeting in September 2006 the Task Force concluded that as significant work had already been done on the issues posed by climate change as regards insurance consumers and insurers, effort should be concentrated on the issues faced by insurance regulators.

Investment Issues

Climate change poses different market related issues for different lines of insurance. But of central concern for insurance regulators are the solvency issues affecting insurers writing all lines of insurance. In particular, climate change raises significant challenges for the regulatory standards applicable to investment practices of insurers.

Direct investment in real estate investments represent a substantial percentage of all assets held by insurers. Many of these assets are, of course, located in areas within coastal areas most at risk for hurricanes, or low lying areas subject to flooding. Insurers as investors are therefore themselves exposed to risk as a result of increased hurricane activity caused by global warming. These risks will need to be assessed as a part of the risk posed by specific investments. In addition to the risk of declining asset value, insurers will need to consider the physical damage risk posed by climate change to their investments.

Additional reserves are secured by investments in assets that are in turn secured by real estate. Climate change poses a risk to these assets as well. In the event of another climate driven catastrophe, increased mortgage defaults can be expected as owners of property struggle to make mortgage payments under stressful circumstances. Increased premiums and therefore a lack of insurance that property owners view as affordable will increase availability concerns. In view of the increased cost of property insurance or lack of availability of affordably priced coverage, technical mortgage defaults due to non-availability of property insurance will impact mortgages in which insurers have invested. This, in turn leads to concerns that mortgage lenders may become a property insurer of last resort, as holders of mortgages are required to obtain insurance on property on which they hold mortgages.

Aside from investments in real estate located in areas at increased risk due to global warming, investments in sectors of the economy most directly affected by global warming could become problematic as well. Insurer investment in bonds, preferred stocks, and equities with firms of substantial exposure to catastrophe as a result of climate change will become increasing problematic.

Further concerns arise as a result of concentration of investment in the types of businesses that are most affected by possible litigation over pollution emission. As trial lawyers develop new legal theories to assign accountability for climate change to individual sectors of the economy, exposure to such liability may prove a drag on future prospects for those industries.

The result of this increasing uncertainty should prompt insurance regulators to increase the scrutiny given to insurer investment practices. In future, global climate change will only add to the variables that insurers and insurance regulators must take into account when evaluating investments. This will affect investments in specific projects located in areas most at risk, as a result of climate change as well as investments in sectors of the economy most affected by climate change.

Inclusion of property insurance availability and catastrophe risk, as factors in evaluating new investments and the methods for doing so, will be critical.

Insurance regulators, working together, must begin now to develop tools to evaluate these risks. To that end, the NAIC should consider creating under the Financial Condition (E) Committee a working group to develop interrogatories and other tools to evaluate those risks.

Investment Opportunities

Opportunities, although insufficient to overcome the problems posed to insurer investment practices by climate change, will arise for insurer investment. Although climate change will challenge the existing methods for regulating the investment practices of insurers' new investment opportunities should arise as a result of attempts to address the potential causes and results of climate change.

Investment opportunities will arise from new sectors of the economy that will provide goods and services to address potential causes of climate change. The move from the current system of energy use to new alternatives will involve substantial changes to the generation and distribution of new forms of energy. Development of technology to make production of energy from solar, wind, geothermal, and nuclear sources more efficient will require capital, as well as creation of the infrastructure, to generate and distribute energy from those sources.

New technology brings investment opportunities. Investment opportunities will arise for new sectors of the economy that will provide goods and services to address potential effects of climate change. While climate change will bring obvious disadvantage to many geographic regions, others will benefit. Increased investment in those areas may be an attractive opportunity for some insurers.

Some parties have recommended carbon trading as a potential means of reducing the potential causes of climate change. Carbon trading may be a potential new venue for insurer investments in the years to come. Insurers may also be able to hedge against the potential claims arising from catastrophic events by investing in commodities that will be needed in the event of catastrophe from climate change.

Property and Casualty Insurer Regulatory Challenges

Climate change is expected to significantly increase the number and scope of weather related events. This increase coincides with an increase in value of property in areas most imperiled by climate change driven catastrophe. These two factors can reasonably be expected to significantly increase the claims paid by property and casualty insurers. Although hurricane and floods have been at the forefront of weather related news in recent years, climate change creates other problems. Increased numbers of forest fires in the United States imperil residential construction increasingly located at the edges of western forests.

Property and Casualty Insurer Loss Prevention and Mitigation Issues

Some have pointed to the active role played by insurers in the wake of earthquake and fire disasters as a model for insurers to follow when confronting the challenges posed by climate change. Insurers led the effort to improve building codes and develop new building techniques to reduce the number of fires and the effects of fire and earthquake; climate change may be a problem which insurers can help their insureds address in the coming years.

Insurers are in a position to lead the effort to improve building standards. They are in a unique position to promote adoption and enforcement of more stringent building standards to address concerns regarding hurricanes and forest fires. In the event of widespread catastrophic losses, reconstruction according to insurer standards designed to avoid future losses, although potentially troubling to the property owners involved, would terminate cycle of continued rebuilding of structures to relatively modest standards, only to see those structures destroyed. The use of discounts and credits to encourage property owners to use mitigating and "green" building materials in repairs may encourage the reduction of the potential causes of global warming. Insurers can be instrumental in encouraging property owners to take proactive steps in advance of a climate related catastrophic event to mitigate damages.

Ultimately, property insurers have an important role to play in a rational land use policy that recognizes catastrophe risk. This role could take several forms. Insurers can encourage policymakers to make the hard decisions to limit development in fragile

areas such as coastal areas and forest fringes, through participation in the zoning process. Insurers can also indirectly but decisively influence development in these areas by refusing to insure property located in such areas. Insurers can also influence development decisions by seeking a fair rate in exchange for insuring property in these areas. A land use policy that recognizes catastrophe risk is an important tool in adjusting to climate change. Insurers will heavily influence land use policy in the future, either deliberately or directly as a matter of advocacy, or inadvertently and indirectly as a matter of receiving a fair price for the coverage they provide.

Consideration should be given to steps that can be taken by insurers to mitigate the effect to their claims practices from widespread property destruction. After all, a catastrophic regional loss will require rebuilding of, or repairs to, many properties. This widespread need for labor and building materials, known as demand surge, will naturally cause price increases for both resources. Insurers should therefore consider options to reduce the amount of loss in the event of a catastrophe by avoiding increased prices for repair materials and labor. Further, widespread property loss will increase the cost of temporary living space. Insurers should therefore address the extra living expense issues resulting from catastrophic events with as much preplanning as possible.

In anticipation of catastrophic losses, insurers can encourage insurance producers to contact their clients to review of current status of property coverage to minimize the problems caused by maintaining insufficient amounts of insurance. While following a catastrophic event, property owners tend to value, this is not a desirable outcome for regulators, insurers, or in particular specific property owners whose property is currently under insured. Ultimately, consumers will need to be proactive regarding these issues. The public must be made to understand the real cost of risk associated with property located in areas prone to catastrophe. Insurance regulators can and should work with insureds and insurers to encourage insureds to seek information. In particular, consumer education regarding the need for flood insurance is vital.

Property and Casualty Insurer Financial Issues

Working intensively with their domestic insurers, regulators have an opportunity to help insurers address the challenges posed by climate change to insurer solvency. Domestic regulators should begin the process of engaging in a dialogue on an insurer's financial exposure to loss resulting from a catastrophe. Regulators should encourage insurers to examine their business to consider the impact of climate change.

As part of this examination, insurers should be encouraged to undertake an analysis of geographic spread of property exposures, including a review of the controls in place to assure that the insurer is limiting its net exposure to catastrophic risk. Regulators should review studies made by or on behalf of the insurer on catastrophe modeling. Insurers should review the limits, cost, and terms of catastrophe reinsurance, including reinstatement provisions. As climate change is a challenge of unprecedented scope for insurers, insurers should be encouraged to consider creative methods of risk distribution such as catastrophe bonds. Other methods to access capital markets, including lines of credit or other vehicles, may be important options for insurers and domestic regulators to consider.

Regulators should work with insurers to see that the insurer has a reasonable contingency plan to reduce financial leverage and resolve any liquidity issues in the event of a sudden loss in surplus and cash outflows as a result of a catastrophic event. This contingency plan should give consideration to the potential for an event triggering both insurance losses and investment losses.

Working together, regulators will need to develop new solvency regulatory tools to meet the challenges of climate change. For example, regulators may consider a requirement of a statement of catastrophe risk by the enterprise risk manager, actuary, and catastrophe modeler. Development of an interrogatory in the annual financial statement or in the management analysis on catastrophe exposures would allow regulators to evaluate insurer planning for climate change. Given that climate change is global, and the number of catastrophic losses is increasing internationally, and some emerging economies are generating increased properties and increased values regulators must begin to consider whether there will be enough capital in the international marketplace to finance the risk

Ultimately, Congress will need to change federal law to accomplish some of the most pressing needs. First and foremost, insurers must have tax deductibility of a "catastrophe loss reserve." In addition, the NAIC asked that Congress appoint a commission to study and perhaps develop a National Catastrophe Plan. In the event of Congressional inaction, the NAIC should begin discussion of the regulatory treatment of other risk transfer alternatives described above.

Property and Casualty Insurer Market Issues

Insureds will benefit if insurers reevaluate their products in the face of climate change and the significant potential for catastrophic loss. The types and scope of coverage offered to insureds will need to address new situations. Climate change increases the need for contingent business interruption insurance. Litigation over carbon releases will create a need for Directors and Officers liability coverage to address a broader understanding of pollution. There may, for example, be a need in the market for private supplemental unemployment insurance triggered by a loss of employment as a result of a catastrophic event. New types of insurance are being created to meet these needs, and wider adoption of these coverages will encourage insurers to further develop new products.

New climactic conditions will give rise to new occasions of loss, and these will need to be understood by both insurers and their insureds. As insureds grapple with these new challenges, insurance regulators will provide a useful role in explaining questions and resolving disputes. Warmer temperatures and more moisture in coastal regions, and elsewhere, may foster additional exposure to mold. Heat waves may result in “brown outs” or a complete failure of the “grid” in some areas, leading to costly power interruptions that create property losses.

As part of adjusting to these new realities, insurers, insureds, and regulators will need to consider whether certain types of property loss are simply uninsurable. Mold coverage has proved to be a contentious issue for insurers, but climate change will only increase these points of friction. For example, insurers will need to consider such issues as whether consequential losses triggered by a loss of water, in the event of a severe drought, are insurable in the first place. Increasing drought conditions may lead some to ask the same question regarding whether whole regions subject to brush, prairie, and forest fires are able to be insured against fire. Insurance regulators will need to consider whether insurers can carve out of the insurance market place products or hazards for which there is a public need, without imperiling the role of the insurance industry in the private sector economy. As reliance on existing residual market mechanisms to pick up the discarded risks from the private market is an inadequate response to these issues, insurers and regulators will need to consider whether severe restrictions and limitations may result in a public response of new governmental insurance plans.

Life Insurer Issues

While property and casualty insurers will have, perhaps, the most identifiable increase in exposure because of climate change, life insurers will face increased challenges as well. Insurers and regulators will have to consider whether increased numbers of catastrophic events may be so overwhelming as to result in a notable increase in mortality. A severe storm or flooding event may cause significant casualties. “Brown outs” and “grid failure,” combined with more frequent heat waves, have been identified as potential results of climate change. Increased mortality is a foreseeable result. Given such scenarios, insurers and regulators should begin to consider the structure of life insurance policies in light of new environmental conditions. For example, insurers may need to consider such issues as whether a death from heat exposure is “accidental” under the law when a power failure may have contributed to the demise.

In addition, insurers and regulators should undertake basic market research to answer questions about insured behavior in the aftermath of a catastrophic event and the associated economic upheaval. As an example, insurers may now find it important to determine whether there is a substantial increase in policy issuances, lapses, or surrenders after a catastrophic event.

Health Insurer Issues

At a very basic level, human health will be impacted by climate change in ways that are not yet fully understood nor anticipated. In turn, health care delivery mechanisms, including health insurance, will be challenged in ways that are not yet fully understood nor anticipated. Global warming poses the potential for more frequent and severe epidemics. On a less catastrophic level, basic health care will be challenged by increased respiratory and asthmatic problems resulting from climate change. And on a very basic level, consideration should be given to the increased cost of medical care for persons displaced from their region by catastrophic events triggered by climate change. These people will need health care outside their traditional provider networks, from providers who do not have their patient’s records. Insurers and regulators must work together to develop responses to these challenges.

Impact on Insureds

To address the impact of global warming and climate change on insurers, as if it were somehow a separate issue from the impact on insureds, is convenient for purposes of categorization. Ultimately, these separate categories misstate the point; the impact of climate change on insurers is ultimately borne by insureds. All of the impacts described above are not restricted to

insurers. They will be felt by the policyholders, either through increased rates, limited availability of coverage, or reduced coverage for claims.

Reductions in coverage availability of personal and commercial property insurance from the private sector, in large geographic areas of the United States, over a long period of time, has been predicted as a likely outcome of global warming. Widespread coverage unavailability on a regional basis will become a factor for the first time in a century. At that time, large insurers were uninterested in covering property in the newly-developing Great Plains and western regions of the United States. Residents of those regions responded by organizing and supporting mutual insurers to cover property. In the present day, however, the call is not for organization of mutual insurers but rather for the adoption of some kind of federal solution.

Insurers facing the near certainty of losses, which exceed premium for coastal regions, may be limited in the magnitude of their rate increases on a temporary basis. However, insurer willingness to bear these losses in exchange for the prospect of long-term gain is questionable. As obtaining financing for real estate acquisition requires property insurance protection, further economic development of coastal regions, western forests, and other environmentally fragile locations, depends on a resolution of the risk finance problems that arise as a result of global warming.

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