TEMPORARY PANEL ON HOMEOWNERS' INSURANCE COVERAGE

A Report to Governor Pataki
and
Members of the New York State Legislature

February 1, 1999

Superintendent of Insurance
Neil D. Levin
Chair, Temporary Panel

STATE OF NEW YORK
INSURANCE DEPARTMENT
25 BEAVER STREET
NEW YORK, NEW YORK 10004

February 1, 1999

To Governor George E. Pataki and Members of the New York State Legislature

In accordance with Chapter 44 of the Laws of 1998, I hereby submit the "Report of the Temporary Panel on Homeowners' Insurance Coverage."

The first meeting of the Panel took place on November 30, 1998. Subcommittees subsequently met and the Panel held full meetings on December 14, 1998, and January 22, 1999. The members are all experienced, knowledgeable insurance professionals. They were assisted by staff from the New York State Insurance Department.

I would like to thank the members of the Panel for the time and energy they have devoted to assembling this comprehensive report.

Sincerely,

Neil D. Levin
Chair, Temporary Panel

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Executive Summary

Catastrophe Fund Subcommittee

- The Catastrophe Fund Subcommittee was formed to evaluate the feasibility of establishing a statewide catastrophe insurance fund.

- The Subcommittee believes that the establishment of such a catastrophe fund in New York State at this time is unwarranted for the following reasons:

  - The availability of homeowners' insurance in coastal communities, with few exceptions, has rebounded as a result of efforts by the New York Insurance Department and the insurance community through both legislative initiatives and regulatory programs.

  - The number of homeowners' insurance policies written by the insurer of last resort - the New York Property Insurance Underwriting Association (NYPIUA) - has leveled off and the number of new policies is declining.

  - The property/casualty insurance industry is better positioned to withstand catastrophic events since Hurricane Andrew in 1992. The industry's surplus has risen from $193.1 billion in 1994 to $342.0 billion in 1998.

  - There is an overabundance of capacity in the reinsurance market, which is driving down catastrophe pricing.

  - Additional capacity from the capital markets is growing and expected to expand further. The capital markets' funding of catastrophe exposures has grown from one transaction in 1994 totaling $85 million to eighteen transactions in 1998 totaling over $3 billion.

  - Creation of a state catastrophe fund in New York raises public policy concerns, among them:

    - A viable catastrophe fund must be exempt from federal taxation. In order to achieve such an exemption, significant state financing of the fund would be required.

    - Cross-subsidization could occur between low-risk and high-risk areas, and commercial policyholders vs. private homeowners' policyholders.

    - It could impede the development of capital market and other alternative solutions.

Market Dynamics Subcommittee

- The Market Dynamics Subcommittee was formed to analyze (1) the issues of homeowners' deductibles (disclosure and triggers), (2) mitigation efforts to reduce loss, and (3) the current state of capital markets in the funding of catastrophe exposures.

- The Subcommittee unanimously agreed that:

  - Deductibles should be triggered by specific wind speeds and only upon classification/naming of hurricanes.

  - Insurers should offer policyholders an option of lower deductible amounts if significant mitigation efforts are undertaken.

  - Catastrophe modeling should be permitted to support rate and deductible filings.

  - Full and adequate disclosure is vital to the success of the current deductible program.

  - An optional supplemental notice should be sent to policyholders by insurers, reminding them to contact their insurer or agent if questions arise.

  - The public should be educated both prior to and throughout the hurricane season.

  - Further consumer education is needed.

  - Lack of an effective New York State performance-based building code needs to be addressed during the 1999 legislative session.

  - As the number of investors participating in the insurance-related capital market grows, issuers of insurance-related securities benefit by having a new and deeper pool of capital to assume catastrophic risk.

- In addition, some Subcommittee members felt that deductibles should be standard among all insurers in order to avoid consumer confusion.

- Equally strong sentiment was expressed by other Subcommittee members that the current deductible program achieves maximum flexibility and should be maintained. The Insurance Department's present program, they believe, has created much-needed opportunities for insurers to increase market share in coastal areas.

Preface

This report is submitted pursuant to Chapter 44 of the Laws of 1998, which amends Chapter 42 of the Laws of 1996 by continuing the requirement that a special advisory panel be established to make a report to Governor Pataki and the Legislature on problems affecting the affordability and availability of homeowners' insurance in New York State.

In accordance with the legislative requirements, Superintendent of Insurance Neil D. Levin chaired the Panel. The Superintendent wishes to thank the following individual members of the Panel for their participation and generous contribution of time and effort in helping to accomplish the Panel's mission:

John R. Cashin	Willis Faber North American, Inc.
Marsha Cohen	Reinsurance Association of America
Anthony Granito	McNeil & Co. Insurance & Risk Services
Jeffrey Greenfield	NGL Group, LLC
Howard I. Honig	Honig Insurance Agency, Inc.
John B. Johnson	Johnson & Johnson Agency, Inc.
Shelly H. Kozel	Lezok, Ltd.
Mark Kriss, Esq.	Kriss, Kriss & Brignola (Alliance of American Insurers)
Mary Lanning	ML&G Associates
Philip Lawson	Allstate Insurance Co.
Peter Lefkin	Fireman's Fund Insurance Co.
Nicholas Puleio	U.S. Re Corp.
Daniel Robinson	New York Central Mutual Fire Insurance Co.
Michael Rosenzweig	Rosenzweig Financial Services
James E. Ryman	State Farm Insurance Co.
George D. Yates	Dayton & Osborne
Steven Wietlisbach	Travelers Insurance Co.
Lewis Wilson	Fire Mark Insurance

Within the New York State Insurance Department (the Department), an internal task force was formed to assist and coordinate the Panel's activities. The members of the internal task force, chaired by Stephen Maluk, were First Deputy Superintendent Gregory V. Serio, Mark Presser, Janet Glover, Elise Liebers, Charles Rapacciuolo, Michael Moriarty, Christopher McCarthy, Wayne Cotter, Benita Hirsch, Patricia Mann, Anthony Yoder, Murray Hirschhorn, and Marina Lutchman.

This report was prepared by the Temporary Panel on Homeowners' Insurance Coverage. The Temporary Panel is comprised of members appointed by Governor Pataki and various members of the New York State Legislature. Although this report was prepared as a result of meetings conducted in the New York Insurance Department's offices and this report was published by the

Department, the report is not an official publication of the New York State Insurance Department. It reflects the findings and opinions of the appointed members of the Temporary Panel, and not those of the Insurance Department.

The full Panel met in plenary session three times in 1998 and 1999. At the direction of the Superintendent, a Catastrophe Fund Subcommittee and a Market Dynamics Subcommittee were formed. The Catastrophe Fund Subcommittee focused its attention on the availability of homeowners' insurance in coastal areas in order to determine the feasibility of establishing a statewide catastrophe insurance fund. It also examined the potential impact of various hurricane scenarios on New York and the ability of the insurance market to withstand such events. The Market Dynamics Subcommittee evaluated issues surrounding homeowners' deductibles, mitigation as a means of reducing loss, and the emergence of capital markets to fund catastrophe exposures.

Presentations were given to the Panel by Dennis Dee and Michael Eserner of the New York Property Insurance Underwriting Association (NYPIUA), Andrew Kaiser of Goldman Sachs, Karen Clarke of Applied Insurance Research, and John Cashin of Willis, Faber North American, Inc. Legislative updates were provided by Christopher McCarthy of the New York State Insurance Department and Steve Casscles, Counsel to New York State Senator Guy Velella (R-Bronx/Westchester).

Members of the Panel as well as nonmembers served on the two Subcommittees. Subcommittee members are listed in the body of each Subcommittee report.

Overview

Reports issued by the Panel in 1997 and 1998 provided a historical perspective of the origin and evolution of the homeowners' insurance product. Homeowners' coverage has been a source of comfort to property owners and lenders in the development and maintenance of communities throughout America. A homeowners' insurance policy is a vital instrument of financial security for millions of Americans, as well as a profitable line of business for insurers.

In recent years, however, natural disasters, most notably Hurricanes Hugo, Andrew and Iniki, have prompted insurers to reassess their position in the market. Many insurers have reduced their writings on properties located along New York's coast in order to minimize potential losses from an Andrew-like storm. Other steps have been taken by the industry and New York regulators to expand capacity. They include (1) a Coastal Market Assistance Program that secures coverage for hard-to-place risks; (2) the development of windstorm deductibles (which are applied separately from the traditional all-perils deductibles found in homeowners' policies); (3) the expansion of catastrophe reinsurance, capital markets and other risk-spreading mechanisms; and (4) various initiatives to promote consumer education and loss mitigation.

Insurance Department Initiatives

(For more detailed information, see page 26)

The states have responded to the homeowners' insurance problem in various ways. States such as California and Florida, which are prone to earthquakes and weather-related disasters, were compelled to address these issues in an acute crisis atmosphere. In contrast, New York has been responding to market disruptions due largely to the *anticipation* of a catastrophe that has not yet materialized. Because New York's coastal areas are densely populated and highly developed, the potential losses from such a storm could be significant.

Upon assuming office, Governor Pataki reviewed the situation faced by the State's coastal residents. Recognizing that free market initiatives offer the best opportunity to achieve an effective and lasting solution, Governor Pataki stressed the importance of participation of the voluntary insurance market in a coordinated program of response. The State's efforts to address the problem were renewed and strengthened.

New York's response encompasses a combination of regulatory and legislative initiatives, including:

- The Department established the Coastal Market Assistance Reference Tables, or C-MART, to provide, via a special telephone hotline, the names and phone numbers of insurance companies that had indicated a willingness to insure risks in proximity to the shore.

- The Coastal Market Assistance Program (CMAP) was established, consisting of a voluntary network of insurers and producers to assist homeowners residing in coastal areas in obtaining insurance.

- Special deductibles applicable only to the windstorm peril were approved for some insurers as a means of encouraging them to continue to insure properties along the coast.

- "Wrap-around" policies consisting of property coverage provided by the New York Property Insurance Underwriting Association (NYPIUA) and liability protection by a voluntary insurer were approved.

- Governor Pataki signed into law legislation permitting insurers to file multi-tier rating programs for homeowners' insurance, and to strengthen requirements providing for the minimization of market disruptions when insurers seek to withdraw from the homeowners' insurance market.

- The Department issued Regulation 159, which requires insurers to provide detailed disclosure notices to policyholders regarding windstorm deductibles. The Regulation mandates that insurers begin issuing such notices to insureds with all policies written or renewed on or after January 1, 1999.

- The Insurance Department amended Regulation 57 in 1998 to require insurers to provide premium credits to property owners for the installation of storm shutters in order to prevent or mitigate losses.

The New York Insurance Department continues to encourage the development of innovative approaches for the financing of natural catastrophe insurance exposures. Finding more efficient ways to access the capital markets is an essential component of this endeavor.

As indicated in the 1998 report by the Temporary Panel on Homeowners' Insurance Coverage, the Department's initiatives with respect to capital markets include: facilitating proposals using catastrophe bonds and similar instruments; exploring the use of derivatives to transfer insurance risk; authorizing the Catastrophe Risk Exchange, Inc. as a reinsurance intermediary; proposing legislation that permits the issuance of capital notes; considering legislation to permit special purpose entities to securitize insurance risk; and developing a model for a tax deductible pre-event catastrophe reserve on a national level. Some of these initiatives are, *prima facie*, capital market approaches while others have the potential to be integrated with capital market approaches in the financing of natural catastrophe risk.

Following is a 1999 update on these activities:

Monitoring Capital Market Activities: The Department has continued to review, and in most cases has approved specific transactions that facilitated insurers' access to the capital markets through the sale of catastrophe and insurance linked securities by insurers. In addition, New York serves as vice-chair of the NAIC Insurance Securitization Working Group, which has been charged with reviewing the continuing developments in insurance securitization.

Authorization of Derivatives: Derivative legislation was enacted into law in 1998 and authorizes the use of a wide range of derivative instruments for the purpose of hedging assets and liabilities by licensed New York insurance companies. Although the primary focus of the law is the use of derivatives to hedge against the fluctuation in value of investments (either due to market risk or foreign currency exposure), certain derivative instruments can be used as part of a hedging program to transfer insurance risk to the capital markets.

CATEX: The Catastrophe Risk Exchange, Inc. (CATEX) is licensed as a reinsurance intermediary under New York Insurance Law. Through a highly secure, yet flexible, computer-based trading exchange, CATEX provides a means whereby primary insurers and reinsurers can have access to a wider, more efficient means of distributing their risks.

Capital Notes: The New York Insurance Department continues to support legislation authorizing the issuance of capital notes by property/casualty insurers. A capital note is constructed as a debt instrument that is carried as a liability on an insurer's balance

sheet, but which may be added to total adjusted capital for purposes of calculating risk based capital. This legislation did not pass in the 1998 New York legislative session.

Pre-Event Catastrophe Reserve for Insurers: The New York Insurance Department along with other state regulators have been involved in developing the design for a tax-deductible pre-event catastrophe reserve for insurers. This proposal will promote the safety and soundness of the insurance industry's balance sheet by enhancing the ability of insurers to fund a major catastrophe.

Computer Modeling: The Department recognizes that computer simulation modeling is viewed by many in the industry as a viable supplement to traditional ratemaking methodologies. Through such efforts as the issuance of Circular Letter No. 7, the Department is attempting to be responsive to the industry's needs while balancing the desire to maintain a stable and viable homeowners' market in New York for years to come. The Department issued Circular Letter No. 7 on April 7, 1998, requesting insurers to voluntarily provide any computer modeling information used in the development of their rates. At the time of this writing, insufficient information has been furnished by insurers to determine whether computer modeling is an appropriate component of the ratemaking process.

CATASTROPHE FUND SUBCOMMITTEE REPORT

Members of the Catastrophe Fund Subcommittee

Christopher Roe	**Fireman's Fund Ins. Co., Chairman**
James Ament	State Farm Ins. Cos.
Joseph Calvo	New York Property Insurance Underwriting Association
John Cashin	Willis Faber North American, Inc.
Marsha Cohen	Reinsurance Association of America
Ross Davidson	USAA
Joseph Fedor	US Re Corp.
John Friedman	USAA
Mary Griffin	American Insurance Association
Floyd Holloway	State Farm Ins. Cos.
Mark Kriss	Alliance of American Insurers
Mary Lanning	ML&G Associates
Peter Lefkin	Fireman's Fund Ins. Co.
Elise Liebers	New York Insurance Department
Stephen Maluk	New York Insurance Department
John Miletti	Travelers Ins. Co.
Michael Moriarty	New York Insurance Department
David Nadig	Allstate Ins. Co.
Nick Puleio	US Re Corp.
Michael Stinziano	E.W. Blanch/Paragon Reinsurance Risk Mgmt. Services, Inc.
Steven Wietlisbach	Travelers Ins. Co.
Jeffrey Williams	Allstate Ins. Co.
David Unnewehr	American Insurance Association
Debra Vasey	State Farm Ins. Cos.
Anthony Yoder	New York Insurance Department

I. Purpose of the Subcommittee

The Catastrophe Fund Subcommittee was charged with an "evaluation of the feasibility of establishing a state-wide catastrophe insurance fund." In our analysis, we examined the availability of homeowners' insurance in coastal areas as an indicator that further state action may be needed. We also examined the probabilities of hurricanes striking New York and the ability of the insurance market to withstand such events.

Two states, Florida and Hawaii, have established state hurricane funds and the structure of these funds are summarized. Generally, the Subcommittee focused upon the merits of the Florida reinsurance fund because it appears to be less intrusive on the private insurance market. The Florida fund provides Florida-specific reinsurance for homeowners' insurers, while the Hawaii fund sells hurricane insurance directly to the homeowner. As a result, the Subcommittee primarily reviewed the advantages and disadvantages of a hurricane reinsurance fund.

To provide a full discussion on the catastrophe issue, the Subcommittee also summarized two alternative potential resources to fund natural catastrophes. First, one Panel member presented the merits of permitting insurers to set aside federally tax-exempt catastrophe reserves. Second, another Panel member outlined possible structural changes to the Florida fund in order to maximize its flexibility. The Subcommittee did not take a position on these alternatives.

II. Present Availability of Homeowners' Insurance in New York Coastal Areas

A. NYPIUA's Rate of Growth

Periodic concerns raised about coastal property insurance availability in New York tend to obscure the fact that the vast majority of Long Island residents and other New Yorkers living near the coast are able to obtain voluntary market coverage. The New York market remains resilient, despite concerns about hurricane risk. One of the most reliable ways of measuring the market's overall health is to track the experience of the New York Property Insurance Underwriting Association (NYPIUA), an insurer of last resort. NYPIUA provides basic insurance to homeowners and businesses unable to find it in the voluntary market. Excessive and rapid growth of residual insurers like NYPIUA would be an indicator of insurance availability problems.

Following Hurricane Andrew, a watershed event for the property-casualty insurance industry, voluntary writers adjusted their total exposures to catastrophic losses, all along the Atlantic coast, including Long Island. In many cases, the adjustments provided new market opportunities for home insurers with small market shares who wanted to write more insurance, but the trend also resulted in an increase in the number of NYPIUA policies on Long Island through the mid-1990s. However, NYPIUA's market share remains minor and its growth in coastal areas has been relatively small compared to property insurance residual markets in other states.

To put coastal property insurance availability into perspective, the following are the most recent trends in the number of NYPIUA dwelling policies:

- **Suffolk County:** The number of NYPIUA policies increased just 1.5% from 1997 to 1998 in Suffolk County to a total of 11,112. Even more positively, the number of *new* NYPIUA policies *declined 26.0% in 1998 over 1997 levels.* Overall policies increased slightly only because renewals of existing policies were higher than previous retention rates. Overall, these trends indicate that the market is currently stable to improving in Suffolk County, probably the most hurricane-exposed area of the state. At the end of 1998, about 2% of Suffolk residential properties had a NYPIUA policy, or about 2 of every 100. A significant number of these policies were written for second homes near beach and coastal areas most exposed to windstorms, rather than primary residences.

- **Nassau County:** The number of NYPIUA policies in Nassau County rose 1.7% from 1997 to 1998 to a total of 5,422 policies. This represents less than 1% of this huge residential market. Furthermore, the number of *new* NYPIUA policies *declined 35.5% from 1997 to 1998***,** from 1,840 to 1,187. Only about 1 of every 100 Nassau households now obtains residential insurance coverage through the NYPIUA.

- For **Queens County**, and other coastal boroughs in New York City, the potential number of risks insured by NYPIUA is influenced both by urban and coastal hurricane risks. Even so, only about 1 of every 100 insured households obtained insurance through the NYPIUA. Queens experienced a 0.6% rise in the number of residential NYPIUA policies from 1997 to 1998, but a substantial *30.2% decline in the number of new policies issued*. On Staten Island, fewer than 1 out of 100 households were insured through the NYPIUA as of November 30, 1998. Brooklyn and the Bronx experienced both an absolute decline in total policies and a decline in new policies from 1997 to 1998.

With both a statewide and a coastal region market share of one percent or less, NYPIUA is functioning as intended, as an insurer of last resort. It also appears to be playing a secondary role in easing the impact of temporary adjustments in the voluntary market. Compared to other coastal states, such as Florida, North Carolina, and South Carolina, the shift to NYPIUA in New York's coastal counties has been minimal. The total number of risks in Nassau and Suffolk Counties did increase steadily from 1993 to 1996, as insurers adjusted to the post-Andrew environment, but growth is now minimal and new applications and policies have actually declined.

A number of states prone to natural disasters have experienced tremendous growth in the share of homes insured through residual market underwriting plans. New York's property insurance market has been much more stable. Even in the two Long Island counties most exposed to severe windstorms, the vast majority of risks continue to be served by the voluntary market. There are a total of 868,142 insured households in Nassau and Suffolk Counties combined. About 16,534 or 1.9% of these households received insurance through NYPIUA as of December 31, 1998. NYPIUA is available for the most hazardous risks near the shoreline or on barrier islands, but there is no crisis in the market for property insurance. Indications are, for 1999, that coastal markets will continue to improve.

B. C-MAP And Other Programs Aiding Availability

In response to public concerns about insurance availability in the mid-1990s, the Insurance Department authorized a Coastal Market Assistance Program (C-MAP) that involved a commitment by participating insurers to write an additional 5,000 policies in coastal areas over three years for risks that were having a difficult problem finding insurance. C-MAP is also administered by NYPIUA. Commitments by individual insurers

are based on market share. C-MAP participants agree to waive their existing underwriting rules, regarding coastal proximity, in providing C-MAP coverage.

The three-year program that started in March 1996 will be completed shortly and, thus far, demand has been less than anticipated, another indication that the coastal market is steadily improving. It should be noted that insurers have only needed to write about 2,900 out of the 5,000 policies anticipated in the commitment. Approximately 2,500 of these have been written on a voluntary, self-selection basis by participating insurers and only 400 have been written through the "rotation method," where policies are assigned to home insurers on the basis of market share.

NYPIUA has pioneered an innovative program to encourage property owners, located within 1,500 feet of the shore, to undertake upgrades that make homes better able to withstand hurricane-force winds. When applying for insurance under NYPIUA, properties located in high-hazard coastal areas are inspected for wind resistance. The inspection typically results in recommendations for improvements to connections and anchors that will make the home and its accessories, such as stairways, decks and porches, better able to withstand high winds. The property owner must undertake recommended improvements as a condition of retaining windstorm coverage. As they become more knowledgeable about the wind hazard and opportunities for mitigation, some property owners even go beyond minimum recommendations in upgrading their properties. Often these more wind-resistant homes become attractive to private insurers, and a coastal risk is removed from the residual market, NYPIUA. Insurers and state officials are working on additional initiatives to promote mitigation in New York, which over the long run will also help to improve availability.

C. NYPIUA's Catastrophe Program

NYPIUA has developed a favorable catastrophe program that has targeted the 1-in-100-year event. For such an event, it is estimated that NYPIUA's probable maximum loss is $144 million. (If NYPIUA could utilize a mandatory 2% hurricane deductible, this number would be reduced.) To handle this exposure, the catastrophe excess of loss reinsurance program provides $74 million in excess of $55 million in losses. The cost of the reinsurance protection is $2 million and became effective July 1, 1998, subject to renewal July 1, 1999. NYPIUA also has $55 million in adequate cash on hand; $40 million is members' equity in NYPIUA. For larger events, NYPIUA has the ability to recover prospectively by an increase in future rates for NYPIUA policyholders. Other property residual markets, like the Florida Windstorm Underwriting Association and the South Carolina Windstorm Plan, also purchase private reinsurance.

If a deficit results after a hurricane, NYPIUA's recoupment mechanism uses several layers. First, on or before November 1, NYPIUA must annually estimate its "deficit" from operations for the subsequent year and report that information to the Department of Insurance. Provided its liabilities exceed its assets, NYPIUA may recoup any estimated deficit through the following steps (Section 5405 of New York Insurance Law).

1. NYPIUA will be credited with the income earned from the Property and Casualty Insurance Security Fund (not to exceed $15 million).

2a. After application of the funds provided in step #1, a factor is calculated (not to exceed 1%) by relating the remaining deficit to net direct premiums written for the latest year by the voluntary market in New York for the perils of Fire and Extended Coverage, including the same perils contained in Homeowners' Insurance and Commercial Multiple Peril package policies.

2b. NYPIUA would immediately assess member companies for the deficit amount while advising members of the factor (surcharge) to be reflected immediately in their rate filings in New York.

3. Any additional deficit amounts not recovered through steps #1 and #2 may be recovered prospectively by an increase in future rates for NYPIUA policyholders.

EXAMPLE: $140 MILLION NYPIUA LOSS EVENT

Funding:	$15 million	Source: NYPIUA equity (5-year average)
	$15 million	Source: Step #1 P/C Security Fund
	$25 million	Source: Step #2 Member Cos.
	$74 million	Source: Reinsurance Program*
	$11 million	Source: Step #3 Rate Increase

*Under the reinsurance program, Step #3 would not be activated until the reinsurance is depleted. Reinsurance limits of $74 million in excess of $55 million are targeted at preventing the need for recoupment under Step #3 above.

III. Catastrophe Exposure for New York Market

A. Previous Catastrophic Events

Natural catastrophes are neither a new nor a distinctly American phenomenon. Ancient civilizations witnessed and recorded floods, volcanic eruptions and devastating "tempests." U.S. history has been punctuated by massive earthquakes (New Madrid in 1811-12, Charleston in 1886, San Francisco in 1906, and Anchorage in 1964) and hurricanes (Galveston in 1900, New York/New England in 1938, Mississippi/Alabama in 1969, South Carolina in 1989, and South Florida in 1935, 1950, 1992). Earthquakes around the "ring of fire" have claimed hundreds of thousands of lives in Europe, Asia, Australia, North America and South America, and typhoons, cyclones and other severe storms throughout the world have left millions homeless. Below is a list of the ten largest insured catastrophes in the United States between 1950 and1994.

LARGEST INSURED NATURAL DISASTERS IN THE UNITED STATES 1950-1994

Rank	Year	Catastrophe	Insured Losses* *(in billions)*
1	1992	Hurricane Andrew	$18.4
2	1994	Northridge Earthquake	12.5
3	1950	Northeast Winter Storm	11.8
4	1954	Hurricane Carol	6.8
5	1989	Hurricane Hugo	6.3
6	1954	Hurricane Hazel	5.2
7	1965	Hurricane Betsy	4.6
8	1970	Hurricane Cecilia	3.0
9	1960	Hurricane Donna	2.5
10	1991	California Fires	2.3

*In 1994 dollars, adjusted for Regional Residential House Price Inflation based on Property Claims Services data adjusted for the change in the value of urban and rural owner-occupied buildings in each state using the U.S. Census of Housing Series HC80-1-A. Chart presented by the Technical Advisors in a Report to the NAIC Catastrophe Reserve Subgroup on Resolution of Issues Regarding the Development of Reserve Design Characteristics.

In 1998, the Property Claim Services reported that U.S. property and casualty insurers paid out an estimated $10.7 billion in natural catastrophe losses for the year. Of this $10.7 billion, insured property losses from Minnesota's winter storms accounted for $1.3 billion, while Hurricane Georges damage in the U.S. reached $2.95 billion.

B. Current New York Catastrophe Exposure

The hurricane that struck New England in 1938 was the greatest hurricane in this century to affect this area. Most recounts of the event discuss the tremendous wind gusts of up to 183 mph and storm surge estimated at 12 to 16 feet associated with the event. It is estimated that the storm killed at least 600 people and caused over $306 million of damage.

A January 1999 report by Arkwright Mutual Insurance Company /E.W. Blanch observed that a severe hurricane could strike New York and cause severe economic damage. According to the report, "the northern Atlantic coast faces the potential for infrequent, but devastating, hurricane losses, primarily due to the high property concentration in this region . . . . The New York-New Jersey region is particularly vulnerable to a major hurricane storm surge because of a bend in the coastline known as the 'New York Bight.' A federal computer model used to establish evacuation plans revealed that a major hurricane storm surge which struck this unique coastal area could trap many people in the region." The report found that if the 1938 hurricane struck today it could result in as much as $45.5 billion in economic losses, significantly higher than the economic loss (as opposed to insured loss) realized from Hurricane Andrew. The study

did not provide analysis on the probability or frequency of an event as large as the 1938 hurricane.

The $45 billion in economic loss should be qualified. First, the estimate includes all loss and is not an estimate of hurricane windstorm losses as insured by the industry. According to Applied Insurance Research (AIR), a catastrophe computer modeling entity, "estimates of total economic losses relative to insured losses range from 5 to 1 for small events to slightly less than 2 to 1 for severe events." For example, the Arkwright/E.W. Blanch study estimates that the economic loss from Hurricane Andrew is approximately $25 billion, significantly higher than the actual insured losses. In New York, a large portion of the economic losses would be produced by storm surge and flooding, which is mainly covered under the federal insurance flood program. Second, the $45 billion estimate does not distinguish between residential and commercial losses or between insured losses in Connecticut, Massachusetts, New Jersey, New York, and Rhode Island. Residential insured losses in New York would be a minor portion of the overall economic loss.

Finally, the 1938 hurricane was a strong Category 3 hurricane that occurred during an incoming high tide. Based on AIR's computer model estimates of the 1938 hurricane, the total insured loss for all lines of insurance today would be $17 billion for the entire Northeast. AIR also estimates that this loss amount for the Northeast is roughly at the one hundred and fifty year return period.

The results of Risk Management Services (RMS) 1998 study for Willis Faber North America, Inc. examined the insured loss potential for New England to the hurricane peril, specifically focusing on New York State's vulnerability to loss. If a storm of the magnitude of the 1938 hurricane were to occur today, it is estimated the total insured loss in New York would be in excess of $4.0 billion.

C. Historical Losses

According to the Property Claims Services, there have been 124 catastrophic events since 1949 that have affected New York. Losses from these events are estimated at $16.2 billion. Of the 124 events, 12 were hurricanes that affected New York. This translates to approximately one hurricane affecting New York every four years. Since 1991, New York has not sustained severe losses from a hurricane.

To analyze the significance of these events representing $16.2 billion in total losses, it is easier to interpret the potential losses if the figures are presented in current dollars. There are many factors that influence the trend of losses, such as population changes, inflation and construction practices. Since much of this data is unavailable in the detail necessary to specifically estimate the impact, we attempted to adjust the losses using a simple construction cost index. The index used is based on the Boeckh Construction Cost Index. Population changes, inflation and other factors will influence the adjusted losses. As such, the adjusted losses provided in this study should be viewed as approximations only.

After adjusting the total losses by changes in construction costs, the total loss from all events that have affected New York since 1949 is estimated at $26.2 billion. New York's share of this loss is $3.8 billion or 15%.

In current dollars, the total loss from the 12 hurricane events is estimated at $7.1 billion. New York exposures contribute 12% or $0.9 billion to this total loss. The following table shows a breakdown of events and loss by peril.

Description	No. of events	Total Loss* (in billions)	New York Loss* (in billions)
Hurricane	12	$7.1	$0.9
All Other Perils	112	$19.1	$2.9
Total	124	$26.2	$3.8

*Losses adjusted to current levels using a Boeckh Construction Cost index.

The following table shows the 12 hurricane events as well as the actual and adjusted losses.

Hurricane Losses Affecting New York
1949-1997

			Actual Loss *(in millions)*		**Adjusted Loss*** *(in millions)*	
Year	**Name**	**Severity**	**New York**	**Total**	**New York**	**Total**
1954	Carol	3	$ 17.0	$ 136.0	$ 162.1	$1,296.7
1954	Hazel	4	10.0	122.0	95.3	1,163.2
1955	Connie	3	2.0	25.2	18.1	228.6
1960	Donna	4	5.0	91.0	36.3	661.3
1961	Esther	N/A	4.3	4.3	30.0	30.0
1972	Agnes	2	23.7	100.1	81.0	341.9
1975	Eloise	3	9.0	119.2	24.5	322.6
1976	Belle	3	11.8	22.7	29.5	56.6
1979	David	3	3.8	122.1	7.6	244.6
1979	Frederic	2	2.5	875.4	5.0	1,498.2
1985	Gloria	3	172.5	418.3	236.8	574.8
1991	Bob	3	115.0	620.0	134.4	724.6
Total			**$376.7**	**$2,650.0**	**$860.6**	**$7,143.1**

*Losses adjusted to current levels using a Boeckh Construction Cost index.

D. Projected Modeled Losses

The sum total of all property insurance premiums reported to the National Association of Insurance Commissioners (NAIC) for New York in 1996 is $3.6 billion. This is the sum total of premiums reported in the fire, allied lines, farmowners, homeowners and

commercial multi-peril (non-liability) lines of insurance. This figure does not include any reported auto physical damage premiums.

The impact of hurricane events on the estimated total insured exposures in New York can be simulated through catastrophe models. Using modeled output, a probabilistic perspective on the likelihood of losses of different severities can be estimated. This likelihood of severe loss is most often provided in the form of a PML or Probable Maximum Loss.

The following table shows the results of simulating thousands of hurricanes across the estimated property insurance limits in New York. Risk Management Solutions, Inc. calculated the estimates using its proprietary IRAS Hurricane model, version 3.6.

Probable Maximum Hurricane Loss

Return Time *(years)*	Estimated Loss *(in billions)*
5,000	$16.2
1,000	10.7
500	8.7
250	6.2
100	3.9
67	3.2
33	1.6
20	0.7
10	0.1

The IRAS model estimates that a $3.9 billion hurricane insured loss in New York has a probability of occurring once in 100 years. Likewise, a $100 million hurricane loss is estimated to occur once every 10 years.

E. Section Summary

After Hurricane Andrew and the Northridge Earthquake, the insurance industry utilized catastrophe computer modeling to estimate future catastrophic events. A 1996 Natural Disaster Coalition (NDC) study estimated that a 1-in-250-year hurricane striking Miami would produce $36 billion in residential insured losses and $55.9 billion in total insured losses. Commercial property insured losses from an earthquake would also be severe. The NDC study concluded that a major California earthquake (with fire following) would produce $18.9 billion in residential property insured losses and $52 billion in total insured losses. Comparable New York estimates are dwarfed by those for Florida and California.

Historically, a hurricane has affected New York once every 4 years. Adjusted losses from these events range from $30 million to as much as $1.5 billion. These losses have been from relatively moderate events. Population growth and inflation suggest

that the losses from these historical events may be more severe if they were to occur today.

Based on computer simulation modeling, hurricane losses for the 1-in-100-year event is estimated to be $3.9 billion for both residential and commercial losses in New York State. For the 250-year event, the losses are estimated to be $6.2 billion for both residential and commercial losses. The insurance industry has already withstood similar catastrophic events and is better prepared today to sustain events as great as Hurricane Andrew and the Northridge Earthquake.

IV. Strength of the Private Market

A. Primary Insurer Capacity

As 1999 begins, the surplus of the property-casualty insurance industry available to pay claims stands at record levels. With good investment returns in recent years, better loss experience in many lines, and moderate catastrophe losses, the surplus or capacity of the industry has increased at double-digit levels since 1995. The following table shows the trend that has significantly increased the capacity of the industry to write new and renewal business over the past five years. Since 1990, the industry's surplus has doubled.

Year	Year-End Surplus *(in billions)*	Change From Prior Year
1994	$193.1	6.0%
1995	230.0	19.0
1996	255.6	11.1
1997	308.5	20.7
1998	342.0	10.9

Sources: A.M. Best, Insurance Services Office (ISO)

Since 1994 when surplus and capacity was increasing modestly due to the impacts of Hurricane Andrew and Northridge earthquake, surplus has risen by 77.1%. The property-casualty insurance industry survived an extremely challenging 16-month period from September 1992 to January 1994 with Hurricanes Andrew, Iniki, the Northridge earthquake and other significant catastrophes that totaled nearly $35 billion in losses. However, due to significantly larger capacity and five years with light-to-moderate catastrophe experience, the industry is in a much stronger position today to handle a 250-year New York/New England hurricane than it was earlier in this decade.

Projections from modelers indicate that maximum personal and commercial property insurance losses from a 250-year storm striking New York would be in the range of $6 billion. This amount is easily within the industry's current capacity to absorb, and is significantly smaller than the catastrophic losses handled by the industry from August

1992 through January 1994 when industry-wide surplus was only about 55% as large as it is today.

The New York home insurance market is large and very diversified with $2.12 billion in annual premiums. The A.M. Best 1997 experience by state and line study lists 138 active home insurers in New York. Unlike some states where the top three writers and a property residual market (FAIR or Windstorm Plan) account for 60% or more of the market, the New York market has a better spread among major companies. The largest home insurer in New York holds a market share of about 16%, whereas in a majority of other states in the U.S. the top writer has a market share of 20% or more, and in some states the largest writer's share exceeds 30%. The top ten writers hold about two-thirds (67%) of the market, but there are more than 100 companies writing the remaining third. This will help distribute losses from a catastrophe among a large number of writers, even before extensive reinsurance capacity is tapped.

B. Reinsurance Capacity

According to reinsurance broker, Willis Faber Re, there is a current overabundance of reinsurance capacity without counting capital markets capacity. Swiss Re's publication Sigma reported that in 1997, $53 billion of catastrophe excess of loss cover was bought worldwide, 31% more than in 1994; $18.5 billion was purchased in the U.S. In 1998, $22.2 billion of catastrophe excess of loss cover was purchased in the U.S. On average, however, according to reinsurance broker US Re, only some $7 to $10 billion of such coverage was available in any one geographical region for all property catastrophe excess related loss, including residential, with the insurance industry retaining an average of $2 to $3 billion of a property catastrophe loss occurrence prior to catastrophe excess reinsurance protection being triggered.

In addition to the catastrophe excess reinsurance, additional reinsurance from facultative, proportional, per risk excess and per occurrence excess contracts provide resources to manage major catastrophic losses. These products add capacity beyond that available from catastrophe excess reinsurance. According to reinsurance broker Guy Carpenter's November 1998 publication the Monitor, companies can purchase traditional catastrophe excess cover above $500 million per event, per insurer, as compared to $200 million in 1992. Average retention in 1998 was $275 million, up from $125 million in 1992. Once again, the catastrophe excess cover does not include other traditional forms of reinsurance that provide catastrophe protection. It also does not include capital markets products that provide additional capacity.

According to Willis Faber Re, the factors driving this healthy market are: the new number of participants such as Arrow Re, Lehman Re, and Chubb Re, plus the Bermuda market and the re-emergence of the London market; mergers and acquisitions -- as reinsurance companies get larger and stronger their appetite for risk increases; strong investment portfolio; and absence of a major single catastrophic event. In addition, Bermuda markets indicate that capacity will increase further if rate levels match their indications. In January 1999, State Farm and Renaissance Re

announced the formation of Top Layer Re, which will provide $3 billion in high level excess cat cover for non-U.S. business. Even though the cover is not available for U.S. insurers, it is a sign of continuing growth in reinsurance capacity. Reinsurance is a worldwide business and the source of reinsurance capacity retains a healthy diversity: one-third Europe; one-third U.S.; and one-third Bermuda.

According to Guy Carpenter's September 1998 *Global Reinsurance Analysis*, the relatively high level of capitalization is indicated by the premium-to-surplus ratio, which now stands at 0.67, which means that every 67 cents of premium is supported by a dollar in capital. This signifies a very healthy market, especially compared to the standard for regulatory action, which is $3.00 of premium as supported by $1.00 in capital.

1998 saw another dramatic decrease in the pricing of catastrophe reinsurance in the United States. The high level of excess capacity is driving down the price of reinsurance for all lines. Reinsurance broker, Willis Faber Re, in its presentation to the Panel stated that reinsurance is a buyer's market and will be for the foreseeable future. Guy Carpenter's *Monitor* states that the rate for catastrophe excess contracts has now declined five years in a row; the rate on line dropped 17.5% in 1998, following a 20% drop in 1997. Catastrophe reinsurance rates are now below the 1992 levels on an "un-adjusted" basis. Paragon Reinsurance Risk Management Services, a subsidiary of reinsurance broker, E.W. Blanch, produces a U.S. catastrophe index twice a year. The index is down 34% since July 1994.

In sum, there is an overabundance of capacity in the reinsurance market without counting capital markets capacity, the catastrophe pricing is being driven down by the high level of excess capacity; and larger catastrophes are more easily absorbed by reinsurers without market contraction.

C. New York Property and Casualty Insurance Security Fund

In case of a major hurricane striking New York, the New York Property and Casualty Insurance Security Fund (Security Fund) may be called upon to cover claims of any insolvent insurers. The Security Fund is created by statute. The primary purpose of the Security Fund is to pay claims to New York policyholders of insolvent property and casualty insurance companies. These claims are paid from assessments on net direct written premium on policies insuring property or risks located or resident in New York for the lines of business as listed on page 15 of the Annual Statement (as submitted by insurers to the New York Insurance Department).

In addition to its assessment authority, the Security Fund must hold moneys. If the net value of funds dips below $150 million, insurers are assessed quarterly to replenish the fund. In 1998, the fund assessed insurers for the first time since 1992.

After Hurricane Andrew, several small companies became insolvent generating in excess of $400 million in claims for the Florida Insurance Guaranty Association (FIGA).

In December 1992, the Florida Legislature responded in a Special Session by authorizing FIGA to issue up to $500 million in tax-exempt bonds. These bonds, issued in February 1993 through the City of Homestead were repaid by a special assessment of 2 percent. By June 30, 1993, about $430 million in claims had been paid.

Like catastrophe state funds, the Security Fund relies upon a build up of moneys. Besides available funds, a certain level of post-event financing would be available through the Security Fund and could be used after an event. New York is already familiar with issuing large tax-exempt bonds. For example, New York City has issued about $22 billion in tax-exempt bonds since 1995. Like the FIGA after Hurricane Andrew, it is reasonable to assume that the Security Fund could be authorized to issue bonds if it were necessary to pay claims of insolvent insurers.

D. Accessing the Capital Markets

Over the past few years, innovative investment structures increasingly have been used to attract traditional investors into funding catastrophe exposures. These structures evolved from and were made possible by statistical techniques used to evaluate and price risks of high yield securities, and the increasing sophistication in predicting weather and seismic events. Capital markets are used to dealing with significant unexpected variations in value (i.e. risk) and natural disasters are a manifestation of risk that can have financial consequences to the value of assets. For example, the *daily variation in market value of New York Stock Exchange traded stocks exceeds the largest catastrophe currently expected*. If a small portion of the seventeen trillion dollars invested by capital market investors could be attracted to fund catastrophe exposures, greater depth, stability and pricing efficiency could be brought to the property catastrophe insurance sector. This section discusses the growing application of capital market instruments for funding catastrophe exposures and identifies changes in public policy that can facilitate further evolution of this important source of catastrophe funding.

The market for capital markets funding of catastrophe natural exposures has grown from one transaction in 1994 totaling $85 million to eighteen transactions in 1998 totaling over $3 billion. The development of this market is not too different from the evolution of the multi-billion dollar mortgage securitization market in the late 1970's. While it is still in its infancy, a lot of resources are being directed by capital markets intermediaries to encourage development of the market and to complete a growing number of transactions. Arguably, this development could revolutionize catastrophe insurance funding and greatly expand the capacity of the U.S. insurance market to deal with the financial risk attendant to large catastrophes. A list of recent transactions is included in Appendix D.

1. Securitization

In general, this is a method of combining ownership of assets or rights to economic value from individual contracts into an investment contract. The underlying asset or

contractual right is the source and collateral for repayment. As such, the economic risks and rewards of ownership flow through to the ultimate investor in the security. Assets or contracts are typically held in trust for the benefit of investors, and cashflow therefrom is disbursed under contractual terms for payment of investment obligations.

A typical structure used to apply principles of securitization to the funding of catastrophe exposure includes granting to investors certain rights to cashflow (premiums) from a reinsurance contract between one or more primary insurers and a special purpose reinsurance company (SPRC). This SPRC is formed for the sole purpose of reinsuring the exposure to be funded by capital provided by traditional capital markets investors. Investors purchase securities from this SPRC, the proceeds from which are held in trust and invested in high-grade securities. The funds held in trust may be released to cover costs related to catastrophes, per the terms of the reinsurance contract. To the extent not used under the terms of the reinsurance contract, funds may be used to pay obligations to investors. Interest from the assets held in trust and premiums from the reinsurance contract are sufficient to provide a return to the investors in the SPRC for the repayment risk assumed in the transaction. Through financial re-engineering, rights to the cashflows from the reinsurance contract and the interest from assets held in trust may be stratified and prioritized such that the terms of some of the securities include a full contractual obligation to repay principal and interest and other securities may carry only a contingent obligation.

Under current U.S. tax law, the SPRC would be considered a separate business entity subject to corporate tax, and then the income on securities at the investor level would also be taxed. This double taxation so adversely affects the economics of these transactions that the SPRC must be incorporated and operate in a non-U.S., tax-advantaged jurisdiction. Otherwise the transaction would be uneconomic.

Nationally recognized credit rating agencies have begun to evaluate the risk attendant to some of these structures and have awarded investment or non-investment grade debt ratings to the related securities.

2. Insurance Exchanges

The CATEX utilizes traditional reciprocal reinsurance concepts arranged through a new cyberspace trading exchange. Using an electronic mailbox system, CATEX risk-bearers and their brokers negotiate and complete trades which swap a portion of one company's catastrophe exposures for another's (e.g., units of Florida hurricane risk could be exchanged for units of California earthquake risk). All contracts are expected to be individually negotiated by the parties.

In theory, CATEX provides insurers a means of diversifying their geographic risks and could be attractive both to companies wishing to divest themselves of undesirable risk concentrations, and to those who wish to assume a moderate amount of risk beyond their traditional coverage area. Unlike debt/equity financing, CATEX offers primary

insurers reinsurance accounting treatment on their financial statements. To date, interest in CATEX by national property insurers has been steadily increasing.

Recently, the Illinois Department of Insurance approved an expansion of INEX's regulations to allow insurers and reinsurers to form special purpose limited syndicates on the exchange to conduct insurance securitizations. These special purpose syndicates, which are subject to the oversight of both the INEX Board of Trustees and the Illinois Department of Insurance, can operate under unique capital and filing requirements reflecting their limited businesses. A major element of the new regulation is the requirement of a fully collateralized trust to secure all obligations.

3. Surplus Notes and Capital Notes

Among the first major capital market catastrophe insurance deals was the $400 million in contingent surplus notes arranged by Nationwide in February 1995. Notes are special forms of debt instruments which, due to restrictions on their repayment terms are accorded certain degrees of equity treatment for insurance solvency regulation purposes. The rules governing these instruments are included in state insurance law and regulations which generally conform to model laws, risk-based capital formulae and accounting treatment adopted by the National Association of Insurance Commissioners. To qualify as a Surplus Note or a Capital Note, debt instruments must meet certain criteria as to maturity, amount outstanding and the financial condition of the issuing insurer. Repayment of principal and interest on Surplus Notes requires advance approval, subject to specified criteria, of the chief insurance regulatory official of the state in which the insurer is domiciled. Capital Notes do not require advance regulator approval for payments of principal and interest as long as certain conditions are maintained.

Qualifying Surplus Notes are listed in the insurer's capital account and are deemed as Surplus for various regulatory solvency ratios, including minimum legal capital calculations. Qualifying Capital Notes are listed as debt on the insurer's balance sheet, but are added to surplus in determination of an insurer's risk-based capital calculation for minimum regulatory capital purposes.

Issuance of Surplus Notes is commonly provided for under many state laws. The regulatory parameters governing the issuance of Capital Notes have only recently been adopted by the NAIC. Enabling legislation or regulations may be required to allow issuance of Capital Notes in a particular state.

These instruments can be issued by an insurer in advance of a catastrophe to pre-fund exposures or an insurer can enter an agreement to issue these instruments on a contingent funding basis as a post-event funding mechanism. In either case, they represent important tools for accessing the capital markets for catastrophe exposure funding.

4. Non-Traditional, Expanded Reinsurance

Variations on traditional forms of reinsurance have emerged in response to the need for insurers to meet regulatory requirements, qualify for favorable accounting or tax treatment and attract additional investors to fund catastrophe exposures. To the extent that these variations actually expand existing or attract new sources of capital to fund catastrophe exposures or facilitate more efficient deployment of existing capital, they may also be viewed as capital markets solutions.

Using the above techniques and instruments, cedents and investors now enjoy a continuum of opportunities to access and employ investment capital. Capital can be accessed by cedents and employed by investors on a contingent, debt capital, equity capital and pure risk basis, with gradations between each of these points on the continuum to allow specific tailoring of transactions to unique needs. Investors and cedents have become very sophisticated in the structuring of portfolios of assets and exposures with various complementary risk characteristics. Cedents have become comfortable with capital markets instruments and investors have begun to accept natural disaster catastrophe-linked securities as a valuable part of their portfolios.

5. Benefits of Capital Markets Instruments

Expansion of capital markets funding alternatives for catastrophe exposures has proceeded rapidly, as investors have become more comfortable with assessing the catastrophe risk of particular cedents. At the same time cedents have developed the ability to assess the benefits and preferred structural characteristics of alternative funding proposals. The benefits to cedents, policyholders, regulators and investors can be categorized into the following broad groups. These benefits may be present to a greater or lesser degree, or may not pertain at all to a specific structure, depending on the terms and conditions of the particular deal.

- **Diversification of Sources:** Additional sources of risk capital have been generated by these transactions over and above the traditional sources of insurance risk capital.

- **Additional Capacity:** The ability of cedents to attract other risk capital to support catastrophe exposures frees up existing capital to support additional business.

- **Multi-Year Coverage:** Traditional capital markets instruments have maturities ranging from days to decades which can translate into multi-year risk transfer product, reducing the complexity to cedents and allowing greater flexibility and stability in structuring catastrophe management funding programs.

- **Stable Pricing:** Capital markets instruments tend to be priced efficiently. As the newness premium of these instruments disappears, cedents and policyholders will benefit from a more open, competitive market for risk capital.

- **Availability, Affordability, Reliability of Catastrophe Insurance:** Policyholders of primary insurers and regulators benefit from capital markets funding of exposures to the extent that additional capacity and efficient pricing translate into improved availability and affordability of catastrophe insurance, greater solvency of insurers and enhanced stability of the market for primary insurance. The willingness and continuing ability of primary insurers to provide catastrophe insurance and, therefore, the ability of policyholders to obtain and afford such coverage can be enhanced if these market efficiencies can be transferred to the policyholder. This presumes that pricing of capital markets instruments will be seen as acceptable to regulators in the ratemaking process.

6. Legal Impediments

As promising as securitization of insurance risk has been in accessing the capital markets for catastrophe exposures, there are significant unresolved legal barriers to expanding this market and making it generally available to insurers. Existing federal tax and insurance regulatory issues require complex structures to make these transactions economic. This has retarded the proliferation of an otherwise promising market.

As a result, many securitization transactions are private, highly structured and involve only a few sophisticated investors. Recent large transactions, which have been structured to successfully navigate a path through complicated state regulatory issues and have avoided federal tax issues, are encouraging exceptions to this pattern. Legal and regulatory processes have begun to address these issues, but significant barriers and uncertainties remain. The 1998 report of the Temporary Panel detailed the proposed changes in the federal tax law needed to promote an efficient structure. The intent of those changes would be to designate special purpose reinsurers as pass-through entities that would not be taxed as a separate corporation.

The NAIC has awarded risk-based capital bond classification status to such securities which receive a fixed-income rating from a Nationally Recognized Statistical Rating Organization (NRSRO). This causes investments of this sort to be more attractive to insurers because, under insurance risk-based capital rules, they will have to hold less capital to support them. Additional changes to state insurance and regulations and statutory accounting requirements are currently being addressed by the National Association of Insurance Commissioners Insurance Securitization Working Group with the intent to facilitate the development of this important funding source.

Capital Markets can be an important source of sophisticated funding of catastrophe exposure, employing a virtually limitless array of instruments to transfer risk across a vast capital base. Securitization of event risk is similar to securitization of other assets and liabilities, which has been routine since the seventies. The efficiency of pricing and depth of funding will tend to complete the commoditization of property insurance, which can lead to great benefits for policyholders and increased competition in an already fiercely competitive market.

7. Update on Department Initiatives to Facilitate Capital Market Development

The New York Insurance Department continues to encourage the development of innovative approaches for the financing of natural catastrophe insurance exposures. Finding more efficient ways to access the capital markets is an essential component of this endeavor. As indicated in last year's report by the Temporary Panel on Homeowners' Insurance Coverage, the Department's initiatives with respect to capital markets include: facilitating proposals using catastrophe bonds and similar instruments; exploring the use of derivatives to transfer insurance risk; authorizing the Catastrophe Risk Exchange, Inc. as a reinsurance intermediary; proposing legislation that permits the issuance of capital notes; considering legislation to permit special purpose entities to securitize insurance risk; and developing a model for a tax deductible pre-event catastrophe reserve on a national level. Some of these initiatives are, *prima facie*, capital market approaches while others have the potential to be integrated with capital market approaches in the financing of natural catastrophe risk.

Following is an update on these activities:

a. Monitoring Capital Market Activities

The Department has continued to review, and in most cases has approved specific transactions that facilitated insurers' access to the capital markets through the sale of catastrophe and insurance linked securities by insurers. These securities have variable interest payment and principal repayment obligations, the specific mechanics of which depended on the risk alleviation objectives of the issuing insurer. The Department will continue to review such transactions upon request by insurers or investment banks.

In addition, New York serves as vice-chair of the NAIC Insurance Securitization Working Group, which has been charged with reviewing the continuing developments in insurance securitization. One of the goals of this group is to educate other regulators in the insurance securitization area.

b. Authorization of Derivatives

Derivative legislation was enacted into law in 1998 and authorizes the use of a wide range of derivative instruments for the purpose of hedging assets and liabilities by licensed New York insurance companies. Although the primary focus of the law is the use of derivatives to hedge against the fluctuation in value of investments (either due to market risk or foreign currency exposure), certain derivative instruments, such as catastrophe options traded on the Chicago Board of Trade, can be used to transfer insurance risk to the capital markets.

The use of derivative transactions under this legislation will be subject to rules and guidelines to be established pursuant to regulations to be promulgated by the Superintendent. In developing the regulations, the Department will review issues related to the use of derivatives in transferring insurance-related risk in order to

determine whether derivatives can provide a viable alternative for the spreading of insurance risk to the capital markets. These issues include credit risk, appropriate accounting rules, correlation for index-based products and the different tax treatments between onshore and offshore securitization vehicles.

c. CATEX

The Catastrophe Risk Exchange, Inc. (CATEX) continues to be licensed as a reinsurance intermediary under New York Insurance Law. Through a highly secure, yet flexible, computer-based trading exchange, CATEX provides a means whereby primary insurers and reinsurers can have access to a wider, more efficient means of distributing their risks.

d. Proposed Legislation

The New York Insurance Department continues to support legislation authorizing the issuance of capital notes by property/casualty insurers. A capital note is constructed as a debt instrument that is carried as a liability on an insurer's balance sheet, but which may be added to total adjusted capital for purposes of calculating risk based capital. This legislation did not pass in the 1998 New York legislative session.

In addition, the Department is receptive to legislation needed to facilitate securitization of insurance risk through the use of special purpose entities formed to assume insurance risk under single or multiple structured reinsurance agreements from ceding insurance companies. The issuance or sale of securities in the capital markets finances funding of these entities' potential obligations under the reinsurance agreement. Investors in such securities risk loss of principal and/or interest in the event the losses (or other triggering points) specified in the reinsurance contract are realized.

e. Tax-Deferred Pre-Event Catastrophe Reserves

The New York Insurance Department along with other state regulators have been involved in developing the design of a tax-deductible pre-event catastrophe reserve on a national level. This proposal will promote the safety and soundness of the insurance industry's balance sheet by enhancing the ability of the insurers to fund a major catastrophe. Under current statutory accounting procedures, if there is no catastrophe in a particular year, the portion of the premium collected for that period's catastrophe coverage would be fully earned and taken into surplus. In the case of stock companies, this earned surplus may be distributed to shareholders in the form of dividends. Thus, statutory accounting procedures discourage property & casualty insurers from accumulating assets specifically to pay for future catastrophes and from expanding capacity to handle larger catastrophic events.

The current catastrophe reserve proposal would require that a reserve be established based on a portion of premiums collected each year for property lines of business. This

reserve would diminish the risk that an insurer will have insufficient funds to pay policyholder claims following a catastrophe.

In addition, the proposal would benefit insurers in that they would pay catastrophe claims with pre-tax, rather than after-tax, dollars. A key part of this proposal would be the tax deductibility of the proposed reserve. This will require a ruling or regulation by the U.S. Treasury, as reserves for losses that have not yet occurred are not currently deductible under IRS rules. To date, the U.S. Treasury has not been approached on this proposal.

While the catastrophe reserve proposal is not a direct capital market approach, it is a noteworthy initiative to address catastrophe risk faced by insurers. The catastrophe reserve approach can be instituted along with other approaches to increase catastrophe risk capacity.

As part of last year's Temporary Panel report, a recommendation was made that the Department consider permitting computer simulation modeling to be used by insurers and rate service organizations as another acceptable actuarial technique for the development of appropriate homeowners' rates and deductibles. In response to this recommendation, the Department furthered its ongoing efforts to study computer simulation modeling by issuing Circular Letter No. 7 on April 30, 1998 to all property/casualty insurers authorized to write homeowners' insurance and all rate service organizations. The Circular Letter encourages those insurers and rate service organizations which use computer simulation modeling as part of their homeowners' insurance rate review and development process in New York to provide, at their option, a comparison of indicated rates and rate changes by form and territory. The comparison is to include the rates and rate changes developed using the results of computer simulation modeling as well as those developed using more traditional ratemaking methodology.

The Department hopes that the information submitted in response to Circular Letter No. 7 will help us to gain additional perspective and familiarity with computer simulation modeling, assist us in measuring its financial impact on the market and, ultimately, enable us to make a future determination on the appropriateness of the use of this methodology in the ratemaking process for homeowners' insurance rate filings.

The Department recognizes that computer simulation modeling is rapidly becoming the wave of the future. Through such efforts as the issuance of Circular Letter No. 7, the Department is attempting to be responsive to the industry's needs while balancing the desire to maintain a stable and viable homeowners' market in New York for years to come.

V. Description of Hurricane Insurance State Mechanisms

A. Florida Hurricane Catastrophe Fund (FHCF)

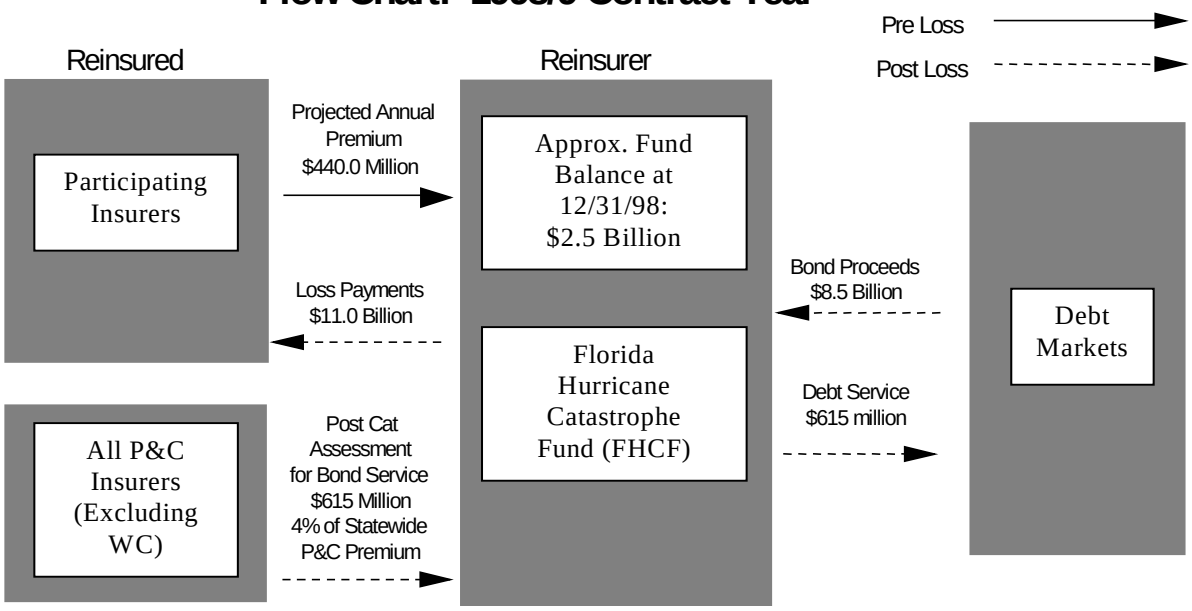
The FHCF was created in November 1993 during a special legislative session after Hurricane Andrew. The enabling legislation is codified in Section 215.555, Florida Statutes. The purpose of the FHCF is to improve the availability and affordability of property insurance in Florida by providing reimbursement to insurers for a portion of their catastrophic hurricane losses.

The FHCF is structured as a state trust fund under the direction and control of the State Board of Administration (SBA). Its trustees are Florida's Governor, Comptroller, Treasurer, and Insurance Commissioner. A nine-member advisory council has been created to provide the SBA with information and advice. Paragon Reinsurance Risk Management Services, Inc. is the Fund Administrator as well as the Actuarial Consultant to the SBA. In addition to hiring staff and contracting with other professionals, Section 215.555, Florida Statutes, gives the SBA the authority to adopt rules in order to implement the Statute.

The SBA collects premium from participating insurers, and may use money in the fund only to pay insurers according to their reimbursement contracts, and to pay other obligations and expenses as specified in the statute. The SBA is responsible for investing fund money and has the authority to issue revenue bonds if it determines that additional funds are necessary for reimbursement of losses or if it determines such action would maximize the ability of the FHCF to meet future obligations. The following flow chart summarizes the economic structure of the FHCF.

Florida Hurricane Catastrophe Fund

Flow Chart: 1998/9 Contract Year



The 1998 annual reimbursement premium collected from participating insurers will be added to the current FHCF balance, resulting in an approximate balance of $2.5 billion as of December 31, 1998. If additional funds are needed to pay losses, the SBA may enter into agreements to issue bonds. The bonding capacity of the FHCF as of May 1998 has been estimated at $8.5 billion. Adding the December 31, 1998 projected FHCF balance of $2.5 billion gives an estimated total of $11.0 billion available to pay losses.

If the SBA determines that reimbursement premium from participating insurers is insufficient to fund its obligations and expenses, it may levy an emergency assessment on each insurer writing property and casualty business in the state. Such assessments cannot exceed 4% of insurers' gross direct written premium for property and casualty business in Florida excluding workers' compensation.

All authorized insurers in Florida, including the Florida Residential Property and Casualty Joint Underwriting Association (RPCJUA) and the Florida Windstorm Underwriting Association (FWUA), which write covered policies in Florida, are required by Section 215.555, Florida Statutes, to enter into a Reimbursement Contract with the SBA.

During 1994, the first year of operation, approximately 380 companies were members of the FHCF. As indicated below, the number of participants decreased in 1995 when commercial business was no longer covered with the exception of commercial residential business.

Contract Year	Participating Companies
1994	378*
1995	289
1996	290
1997	301
1998	292

*Includes commercial-only writers

The FHCF applies to any storm declared to be a hurricane by the National Hurricane Center, which causes insured losses in Florida, both while still a hurricane and throughout any subsequent downgrades in storm status. Tropical storms that do not become hurricanes are not covered. Coverage is on a per occurrence basis. Only hurricane losses are subject to reimbursement by the FHCF, and an insurer may have exposure to other types of catastrophic losses (e.g., hail, tornado, earthquake, flood, etc.).

The FHCF has paid out to insurers $13.5 million in total estimated incurred losses. In 1995, total estimated FHCF incurred losses were $47,672 for Hurricane Erin and $13,372,084 for Hurricane Opal. Hurricane Opal produced $2.1 billion in total insured losses and Hurricane Fran produced $1.6 billion in total insured losses. The 1998

Hurricane Georges resulted in $10,147 in incurred losses based upon the interim loss report.

The Reimbursement Contract, along with an initial premium invoice, is mailed to each participating company prior to June 1, the beginning of the contract year. At that time, each company must also elect a reimbursement percentage of 45%, 75% or 90%.

Insurers are required to pay an annual reimbursement premium to the FHCF, based on an actuarial formula specifying the amount of premium to be paid for each $1,000 of insured value for covered policies in each 5-digit Florida ZIP Code by type of business, construction class and deductible group. The SBA retains an independent actuarial consultant to develop the reimbursement premium formula and the rates to be used in determining the annual reimbursement premium due from each insurer.

To develop the annual reimbursement premium and make other hurricane exposure estimates, FHCF uses catastrophe computer modeling. There are two fundamental reasons for using computer modeling in developing rates: (1) low frequency peril and (2) changing exposures. In both cases, relying on historical experience (even with loss trends) would not produce realistic rates. The historical time period may not be long enough to generate a realistic sample of possible events. Aggregate insured losses from past years, when the population was lower, would tend to be lower than losses from similar events today, simply because there were fewer exposures at the time of the historical events.

The FHCF uses loss costs based on 50,000 simulated years of weather (hurricanes) applied to current Florida residential exposures. Insured loss costs are generated to meet statutory and various insurance coverage combinations. The actuarial consultant loads these results for expenses and other non-model factors to generate rates.

In addition to rating factors, the coverage level chosen by the company is considered in the final premium calculation. Premium for a company choosing 45% coverage is one-half of the premium at the 90% coverage level. Finally, it should be noted that premium calculation and exposure reporting procedures may differ for companies that begin writing covered policies after the beginning of the contract year.

As the reimbursement premium formula is developed for the contract year, a retention multiple is established for each coverage level. A retention is the amount of losses that the insurer must retain before the FHCF covers the insured losses above the retention. A company's retention is calculated by multiplying its annual reimbursement premium by the multiple corresponding to the selected coverage level.

Losses reimbursable under the FHCF from hurricanes during a particular calendar year will not be paid until the following year, although Section 215.555, Florida Statutes, provides for discretionary advances in the interim for insurers that may become insolvent without earlier payment, and for the JUA's and limited apportionment companies which meet certain criteria.

Reimbursement of subject losses is limited by the claims paying capacity of the FHCF. Thus, there is no identified limit of coverage. Given a major catastrophic event, the amount of reimbursement from the FHCF may be partially limited by funds available to cover reimbursable losses. A methodology has therefore been established for risk management purposes.

As illustrated in the flow chart, the claims paying capacity of the FHCF is the total of the current FHCF balance and the bonding capacity of the FHCF. This was most recently calculated as follows:

12/31/98 Projected Fund Balance		Estimated Bonding Capacity		Estimated Claims Paying Capacity
$2.5 billion	+	$8.5 billion	=	$11 billion

If the bonding estimates do not change, the FHCF should increase to $11.6 billion by the end of 1999. Should the FHCF's claims-paying capacity be insufficient to reimburse all companies to the full extent of their subject losses, the projected payout multiple becomes a factor in calculating FHCF recovery.

B. Hawaii Hurricane Relief Fund

In 1992, less than a month after Hurricane Andrew devastated the Florida and Gulf Coasts, Hurricane Iniki struck the Hawaiian island of Kauai, causing $1.6 billion in insured losses. Due to Hawaii's unique geography and demographics, a comparable storm (Category 3) could have caused significantly more damage if it were to hit the more densely populated island of Oahu. Concern about the domestic insurance industry's ability to handle such a loss led to the enactment of the Hawaii Hurricane Relief Fund (HHRF) in 1993. In April 1996, the IRS granted tax-exempt status to the fund.

HHRF is a state agency operating within the Department of Consumer Affairs. The facility offers hurricane coverage to all homeowners in the state of Hawaii. Insurers writing business in the state who choose not to write hurricane peril act as servicing entities and issue policies on behalf of HHRF. Insurers are subject to assessment, based on market share. The assessment is capped at $500 million.

Claims Paying Capacity:

$750 million Credit Facility (Administered by Bank of Hawaii)
$600 million Reinsurance (Traditional and Finite Risk)
$500 million Assessments (On servicing insurers)
$90 million Paid-In-Capital (Total Assets $135 million)

Sources of Financing: Credit facility and a portion of reinsurance are supported by current premium income. Additional revenue is generated from a special mortgage recordation fee. There also is a quarterly assessment of 3.5% on all property-casualty premiums, excluding auto, health and workers' compensation. It is currently assumed that the Fund can handle a $1.5 billion loss. If the available funding is exhausted, claims are paid on a *pro rata* basis, with the unpaid portion to be paid as soon as available funds are collected from an annual 7.5% insolvency surcharge on property-casualty policyholders.

When the HRRF was enacted, its goal was to begin building a surplus for future catastrophes. However, Hawaii has failed to set premiums at a high enough level to create a surplus.

The HHRF also permits an opt-out for insurers. Recently, State Farm filed to opt-out of the HHRF effective March 1, 1999. As a result, the purpose of the HHRF has come into question and the state may reevaluate its need.

VI. Alternative Potential Resources to Fund Catastrophes

To provide a full discussion on the catastrophe issue, the Subcommittee has summarized two alternative potential resources to fund natural catastrophes. First, one Panel member has presented the merits of permitting insurers to set aside federally tax-exempt catastrophe reserves. Second, another Panel member has outlined possible structural changes to the Florida fund in order to maximize its flexibility. The Subcommittee did not take a position on these alternatives.

A. Tax-Deferred Pre-Event Catastrophe Reserves (Policyholder Disaster Protection Coalition* Proposal)

It is relatively clear that the Florida, California and Hawaii responses to disaster insurance protection have all evolved around the principal that funds need to be accumulated on a tax-free basis. (The California Earthquake Authority is not examined in this report.) In the case of the Florida and California funds, acknowledgement by the Internal Revenue Service that funds would be accumulated without adverse tax consequences to participating insurers was the absolute *sine qua non* for implementation of both mechanisms. All of the catastrophe insurance bills introduced in the last New York legislative session revolved around the idea that funds collected either from policyholders or insurers would be set aside and would be allowed to accumulate along with interest without generating counterproductive tax liability for participating insurers. It was assumed that taxation of these funds would eliminate any

* The Policyholder Disaster Protection Coalition is a coalition of small businesses, nonprofit organizations, elected officials, insurance providers, policyholders and citizens concerned with disaster planning. The PDPC is working toward formulating private market solutions to disaster preparedness by encouraging insurers to specifically set aside some policyholder payments for future disasters.

beneficial protection. Accordingly, the ability to accumulate necessary funds to manage natural disasters before an event without subjecting these funds to federal tax liability is an essential cornerstone of all of the state disaster protection plans.

A number of insurers and other interested parties have come to believe that it is not necessary to create artificial state or federal mechanisms with unknown consequences for the primary and reinsurance market places. Instead, the cost, inefficiency and uncertainties surrounding these funds could be avoided by taking the more straightforward step of allowing individual insurers to accumulate funds on a tax-deferred basis. To achieve this goal work is underway at the NAIC to develop a catastrophe reserve proposal which would provide statutory accounting and insurance solvency requirements that would complement federal legislation that could be supported by the NAIC and others before Congress. A number of organizations that represent homeowners, mortgage lenders, small business, insurers and other interested parties have formed a coalition to advocate enactment of a measure authorizing insurers to establish reserves for natural disasters which are tax deductible.

At present, U.S. laws and accounting rules prohibit insurers from setting aside funds specifically to cover losses associated with future events. Work is already underway at the NAIC, and legislation will be advanced in the 106th Congress to allow creation of catastrophe reserves on a tax deferred basis in the United States just as these reserves are permitted in many other countries of the world. This approach allows protection against natural disasters while minimizing government involvement, inefficiency and unnecessary costs.

A tax-deferred pre-event catastrophe reserve (Reserve) would allow insurers to direct some policyholders' premiums to a reserve fund devoted exclusively to covering claims associated with a future major catastrophe. The tax deferral is intended to provide an incentive to insurers to voluntarily provide catastrophe insurance in highly exposed areas while managing their exposure to catastrophes.

It is widely believed that many insurers will be encouraged by rating agencies and insurance consumers to establish these reserves. And the NAIC is considering requiring insurers to establish such reserves to address solvency concerns. Proponents maintain that its adoption of a federal tax deferral for the reserve would work to improve availability of property insurance for home and business owners, and would help to ensure that consumers will have reliable insurance in the event of a major catastrophe. Proponents cite the following benefits of allowing creation of such a tax-deferred reserve. Several of these benefits may help avoid many of the pitfalls that burden creation of individual state funds:

- Availability -- As insurers save in advance on a tax-deferred basis to cover future claims from a mega-catastrophe, catastrophe insurance should become more available.

- Industry Stability and Policyholder Security -- More capital will be dedicated to cover catastrophe exposures – an estimated $19 billion pre-funded reserve built within the first ten years. This should result in greater stability in the industry and fewer catastrophe induced insolvencies and less exposure to guaranty fund assessments. In combination, these benefits would act as a buffer to reduce market shocks in the aftermath of a major catastrophe. Those shocks have resulted in insurers seeking to withdraw from highly exposed key markets and have given rise to the need to consider alternative approaches, including state pools.

- Effective, Efficient Risk Diversification -- Insurers are effective and efficient diversifiers of risk across a broad geographical area. In comparison, State pools tend to concentrate catastrophe risk among the policyholders of a single state. The Reserve would provide the incentive for insurers to save in advance for mega-catastrophes while preserving the benefits of broad diversification available through the established insurance marketplace.

- Reduced Reliance on Government and Industry Bailouts -- When an insurer becomes insolvent, its policyholders are often helped through: (i) guaranty funds (assessments of surviving insurers which ultimately are paid by policyholders of surviving insurers or state taxpayers), or (ii) taxpayer-funded government assistance. Increased industry ability to handle major catastrophes should translate into fewer insolvencies and less possibility of taxpayers and other policyholders having to bail out an ill-prepared insurance company. This proposal would make it possible for, and encourage, insurance companies to be prepared before a major disaster strikes.

Operation of the Reserve

- Generally, the Reserve funds would be held by the insurer in a segregated account and subject to a cap. The amount of the cap would be calculated for each insurer as a percentage of the insurer's writings in exposed property lines. Actual funding of the reserve would be based on the insurer’s catastrophe exposures for its qualifying lines of property-casualty business. The Reserve funds would be set aside on a tax-deferred basis. In the year funds are drawn down from the reserve, they would be included in the determination of an insurer’s federal tax liability for the year.

- An insurer could reduce the Reserve only to cover actual losses associated with a qualifying event as designated by the Property Claims Service, the President of the United States or by the chief executive of any state, territory or possession of the United States. Qualifying events include: wind (hurricanes, cyclones, tornadoes); earthquake/fire following; winter catastrophes (snow, ice, freezing); fire; tsunami; flood; volcanic eruption or hail. The Reserve also could be decreased by the order of a governmental regulator to forestall insolvency.

- The allowed maximum Reserve would be phased in over a 20-year period. Five percent of an insurer's cap could be set aside in the Reserve in the first year and five-percent increases would be allowable during each of the remaining years of the phase-in period.

While many in the insurance industry have long acknowledged that catastrophe reserves are in theory the most desirable method of funding potential liability for natural disasters, federal budget politics impose a significant barrier. Congress would need to approve a change in U.S. tax law to allow the deferral of taxes on the Reserve. This would be subject to balanced budget rules that require reductions in federal tax revenues to be offset by accompanying increases in revenue or by expense reductions. To the extent that these rules allow a tax revenue reduction to be offset by the federal budget surplus, that could also be a resource. A preliminary estimate of the official ("static") revenue effect of the Reserve showed a reduction of about $5 billion over 10 years, or $500 million per year.

B. Variation of FHCF (US Re Proposal)

The following proposal is for a New York Wind Catastrophe (Reinsurance) Fund (the Fund) modeled to an extent on the Florida Hurricane Catastrophe Fund (FHCF) with several considerable differences. Its intent is to provide a state sponsored but private sector solution to the economical availability of current and/or future insurance capacity for a major catastrophic event. This proposal is offered by one of the Panel members as an illustration of possible structural changes to the FHCF which may make a single-state focused reinsurance fund more flexible and therefore more attractive to the insurance community. It is not yet certain how much of the insurance community would participate in the proposal. Any such solution should be one that qualifies for federal tax-exempt status and it is hoped that the entity would be considered "an integral part of the state" because the state would administer the fund and exercise its taxing authority to support it.

The Fund would act as a reinsurer to individual insurance companies, similar to that of the FHCF, except that:

- The Fund would be voluntary to insurers, not compulsory, so recoveries would be available only to those companies which subscribe to the Fund. This would avoid having insurers, who do not write in hurricane exposed areas, being forced to support other companies who do.

- The Fund would provide protection for all property losses, <u>not just residential</u> losses. This would make it easier for the insurer to determine how to appropriately protect itself with private sector reinsurance in a major catastrophic event.

- The Fund would provide protection only for losses arising out of a Class III (Saffir-Simpson Scale) Hurricane or larger. Events of this magnitude cause serious insured loss. The estimated loss from such events and their impact on a company's

earnings, etc., are a major driving force behind insurance company management's focus on the redistribution of their writings and market capacity. Notwithstanding this, the Fund would only respond to any single insurer's gross occurrence loss once it exceeded the greater of 250% of the insurers property insurance premiums or 20% of its net worth. These percentages are open to change, as the intent is to encourage the insurer to use the available private sector reinsurance market to control its ultimate loss if it so chooses.

- The initial and ongoing funding of the Fund will come from several sources:

  1) Insurance companies, who would make a capital contribution and allocate a portion of their ongoing pre-tax profits, which would be considered a capital contribution and which they would be able to carry as an investment asset on their balance sheet.

  2) Original insured policyholders, who would pay a modest annual insurance premium surcharge, commensurate with their exposure, for which they will become "preferred" shareholders in the Fund.

  3) The State, which would allocate a portion of its premium tax receipts, as well as other areas such as fees derived from property transfer transactions, mortgages, etc.

- out of the above funding sources, the Fund would look to enhance its claims paying ability through the purchase of reinsurance and accessing the capital marketplace.

VII. The Argument <u>for</u> a Hurricane Catastrophe Fund

Subcommittee members were divided as to the necessity for a hurricane catastrophe fund in New York State. A small number of Subcommittee members favored the creation of such a fund. This section summarizes this argument, while the argument <u>against</u> the creation of a fund can be found in Section VIII.

Prior to 1992, Florida thought it had a stable and competitive property insurance market. But then Hurricane Andrew swept through the state, causing $18.4 billion in insured losses. In all, 11 insurance companies were declared insolvent and the property and casualty joint underwriting association ballooned to 900,000 policies. Prior to 1994, California thought it had a stable and competitive property insurance market. But then the Northridge Earthquake struck the state, causing $12.5 billion of insured losses. The event financially strained two large insurers, as the 20th Century Insurance Company was ordered to reduce its earthquake insurance exposure and Republic Insurance Co. withdrew from the California market. The California FAIR plan -- the state residual market -- was strained.

Both Florida and California responded to the market crisis after the event by adopting risk-sharing mechanisms unique to their states. Reinsurance availability was restricted

and prices surged as a result. Florida adopted the Florida Hurricane Catastrophe Fund (FHCF); California created the California Earthquake Authority (CEA). These mechanisms helped restore capacity to the property insurance markets at better prices than what could be offered by private reinsurers, encouraged insurance companies to reopen their doors in the states, and helped foster a more stable insurance marketplace. New York may find itself in a similar position as Florida and California. In that case, New York should plan ahead for this likely market crisis.

A catastrophe fund could be tailored to New York so that it does not rely on the residents of upstate New York for support. The considerable population of Long Island and the five boroughs of New York City would comprise a substantial assessment base to support the fund. The fund's assessment base can also be defined to exclude commercial property/casualty insureds, though commercial insurers could first consider the benefits of inclusion before deciding to opt out. Of course, the broader the assessment base, the greater the claim paying ability, but something far less than universal application will still result in a viable catastrophe fund. It is expected that the claims-paying capacity of such a local fund would be smaller or in the reverse, the post-event policyholder assessment would be higher.

The reinsurance industry is not regulated for rates or coverage. They are free to exit and enter markets with few, if any, restrictions. Today, reinsurance in New York appears to be readily available and reasonably affordable, but the same may not be true after a catastrophic event. After Hurricane Andrew and the Northridge Earthquake, reinsurance was not readily available and prices jumped dramatically.

Since the reinsurance market is essentially a worldwide market, it does not necessarily take a catastrophe in New York to create a shortage of reinsurance. A catastrophe in Europe, Florida or Asia could have an impact on reinsurance prices in New York. A catastrophe fund dedicated solely to the exposure in New York will be less subject to the volatility of the private reinsurance market, minimizing the potential rate shock that might occur if or when reinsurance costs suddenly go back up.

Reinsurers object to a catastrophe fund because they fear it will crowd them out of the reinsurance market. There is disagreement as to whether this has occurred in Florida, where the catastrophe fund supplements private reinsurance. The combination of private reinsurance and a catastrophe fund is a significant factor in attracting as many new companies to the Florida insurance market.

The fund will compete against the conventional reinsurance market. There is a beneficial quid pro quo, just as state control is the quid pro quo for the significant benefit of tax-exempt status. The fund will compete for a slice of the reinsurance pie, but in that niche of the market, the fund will supply reliable, additional capacity at much lower prices. While the fund would compete to a degree with the private market, it would not even remotely replace the need for private reinsurance. A significant market for reinsurance and other capital market sources of reinsurance capacity would remain.

It is suggested that if insurers rely too heavily on the fund, in the long run it may create conditions similar to the market instability after Hurricane Andrew. First, insurers cannot rely too heavily on the fund, unless they are so reckless that the only reinsurance they purchase is from the fund, and that cover is much less than their exposure (but those insurers are likely to be overexposed even without an available catastrophe fund). Second, as articulated earlier, a catastrophe will stabilize the market, not destabilize it.

A catastrophe fund is more cost effective than private reinsurance. This fund does not pay taxes, can issue tax-exempt debt and it has nothing equivalent to the private sector cost of capital. Without considering debt-financing costs in Florida, the catastrophe fund provides $25 of coverage for every $1 of premium paid by the insurer. Private reinsurance probably would provide less than $8 of coverage for every $1 of premium paid. According to the Paragon Catastrophe Reinsurance Price Index, reinsurance prices increased 75% after Hurricane Andrew. Those prices have fallen since their high around mid-1994, but are still 16 percent higher than pre-Andrew prices.

It has even been suggested that insurers will pay twice for the same reinsurance coverage. It may be true that prudent insurers may purchase a limited degree of overlapping reinsurance coverage, but not because the fund will be unable to meet its obligations. (It will still have its surplus, bonding authority and ability to make assessments to meet those obligations.) Rather, some marginal amount of overlapping reinsurance coverage may be advisable because of the impact that fluctuating interest rates have on reinsurance recoverables. Considering the significant amount of money insurers will save when they purchase reinsurance from the fund, they will consider the cost of any small amount of overlapping coverage to be a very small price to pay.

After five years of operation, the Florida fund has a claims-paying capacity of $11 billion ($2.5 billion of cash and $8.5 billion in debt). This is additional claims-paying capacity that would not otherwise exist. The frequency of events is greater in Florida and it is necessary to build a larger fund than in New York. However, it would be prudent for New York to act, before a catastrophic event, so that the fund has the opportunity to build adequate claims-paying capacity.

Opponents' arguments suggest that the fund's assets will be completely drained by the first catastrophe to come along. That is unlikely, since the fund's capacity would be calculated to withstand a 1-in-100-year hurricane. The chances of a smaller event are much greater and, in fact, if Hurricane Andrew were to strike today, the FHCF's capacity would not be fully depleted.

Last year, the Panel recommended that the federal government change its tax policy regarding catastrophe reserves. Under current law, pre-event catastrophe reserves are not tax deductible and consequently are taxed as ordinary income. Hence, tax policy discourages the build-up of reserves or surplus to pay for large catastrophe losses that may occur in the future. The prospects for a change in federal tax policy are remote. But a state catastrophe fund is a way to build those reserves without being subject to

federal income tax. The tax-free build-up of catastrophe reserves is a key factor contributing to the large claims-paying capacity that currently exists in the Florida and California funds. The economic impact to insurance companies is similar, and we would not have to wait for the federal government to act.

A catastrophe fund can accumulate catastrophe reserves more rapidly than the private market, thereby improving the solidity of the insurance industry. A fund would build surplus and accumulate interest income on a tax-free basis, thereby building capital more rapidly than what would otherwise occur in the private market. This money will be used to protect consumers against catastrophe-induced insolvencies and reduce the exposure to guaranty fund assessments. The fund also would help reduce market instability after a major catastrophe.

Both Florida and California allocate a small portion of their funds for promoting mitigation and for ensuring the state is prepared to respond to a catastrophic event. Such an allocation is generally necessary to ensure that the fund is tax exempt. The expenditure pay dividends in the long run, however, as homes and families become better protected in the event of an emergency event.

A catastrophe insurance fund or other risk sharing mechanism in New York would attract more competition to the property insurance market, increase the total claims-paying capacity of the insurance industry, lower the cost of writing catastrophe insurance, enhance the solidity of the insurance industry, promote a more stable insurance market after a severe event, and encourage homeowners to protect their homes against loss from hurricanes and other natural catastrophes.

The principal argument against a catastrophe fund appears to be based on the state of the current market. There is not a crisis, according to those who oppose a catastrophe fund. The number of new business applications for state-created residual markets is shrinking. They argue insurers are having no difficulty finding reinsurance. The same statements could have been made in Florida and California before severe catastrophes struck those states. Those states subsequently discovered that they were not as well prepared for handling severe natural catastrophes as they thought. Unless New York acts now, it will make the same miscalculation.

The FHCF and the CEA were debated and ultimately enacted in pressure-cooker atmospheres created when the absence of affordable reinsurance and uncertainty over future market stability combined to drive insurers out of the market. The resulting legislation was not perfect, and came at great political cost, but both new laws were effective at bringing insurance companies back into the market. Rather than complacently waiting for catastrophic events to overtake the insurance industry and competitive market, the industry should begin now to take control of its own destiny while calmer times provide the opportunity to do so.

VIII. The Argument against a Hurricane Catastrophe Fund

A state catastrophe reinsurance facility will not make hurricane coverage more available or more affordable in New York. Instead, it will result in cross-subsidization by shifting costs to homeowners and businesses with little or no hurricane exposure. In turn, it will force insurers to purchase reinsurance from a state-run entity, instead of relying on private reinsurance and emerging capital market funding arrangements to spread the risk of loss. In the short-term, it is likely to exacerbate the availability and affordability of homeowners' insurance. In the long-term, the market is still likely to experience instability after a mega-catastrophe.

Opponents argue that a state reinsurance facility benefits insurers who have elected not to purchase reinsurance in the voluntary market as well as those who are reluctant to manage their own capacity problems. However, it also allows those insurers to pass along their problems to responsible insurers and their customers throughout the state.

More importantly, there is no market crisis or availability problem in New York. As a long-term solution to hurricane losses, New York should invest in strong statewide building codes along with their enforcement and voluntary mitigation measures by homeowners to reduce exposure to loss. Along with realistic levels of deductibles, these steps can increase capacity to meet demand.

As precedent, only one state reinsurance fund presently exists - - primarily because of the high level of exposure that Florida continually faces from hurricanes. The Florida Hurricane Catastrophe Fund (FHCF) is part of an extensive legislative response to the severity and frequency of hurricanes striking Florida. In addition to the FHCF, the Florida Legislature improved mitigation measures, strengthened the enforcement of building codes, permitted changes in hurricane coverage such as 2 percent to 10 percent hurricane deductibles, restructured the property residual markets (Florida Windstorm Underwriting Association (FWUA) and the Residential Property and Casualty Joint Underwriting Association (RPCJUA)), allowed catastrophe computer modeling in the ratemaking process, imposed a moratorium on cancellations and nonrenewals, and encouraged new insurers to enter the market. The FHCF was never created to solve all the problems of the Florida homeowners' insurance market and only represents a partial solution to a problem that is potentially more severe in Florida.

In creating a tax-exempt reinsurance state fund (as opposed to a primary insurance catastrophe fund, e.g., Hawaii Hurricane Relief Fund), Florida petitioned the Internal Revenue Service (IRS) for a private letter ruling. A private letter ruling is directed only to the taxpayer that requested it and it is not be used or cited as precedent. Under section 115 of the Internal Revenue Code, income derived from the "exercise of any essential governmental function and accruing to the State" is exempt from taxation. While there is no set formula for tax-exemption, the IRS's ruling provides guidance.

Failure to receive tax-exempt status for the build up of premiums is devastating to the success of a reinsurance state fund. At a Florida legislative workshop held by former

House Insurance Committee Chair John Cosgrove, he stated that the FHCF fund would have to pay $165 million in Federal taxes in 1994 on $407 million raised through reimbursement premium. In addition, he noted that the IRS is very reluctant to grant tax-exempt status if there is linkage between the value insurers receive from the FHCF and the amount of premiums paid by insurers. Generally, the IRS expressed concern that the limited state involvement in the FHCF would make it no different from a private reinsurer.

Ultimately, the Florida Legislature made certain changes to the FHCF which prompted the IRS to determine that the fund is an "integral part of the state" and tax-exempt. The changes were primarily designed to demonstrate the economic involvement of the state. Key points in the IRS ruling are as follows:

The Florida Legislature provided a two-year state contribution to the FHCF in the amount of $50 million. In addition, the Legislature may annually appropriate at least $10 million for an expanded range of hurricane mitigation activities. In Standard and Poor's September 1997 rating of the FHCF, they stated that "the IRS looked favorably on the Cat fund based on the commitment of the state and its generous contribution."

Presently, no catastrophe state fund has the "full faith and credit" of the state. By law, neither the funds in a state treasury nor the tax revenue base of the state has been pledged to the payments arising under a state catastrophe fund. Even without this commitment, the IRS has found these entities to be an integral part of the state. To meet losses in excess of any financing program, a state or federal funding solution would be necessary.

To respond to the IRS, the Florida Legislature also increased the emergency assessment. The 2 percent emergency assessment on all property and casualty premium, other than workers' compensation insurance, (which assessments applies only if the FHCF premium revenues are insufficient to pay off its bonds) was raised to 4 percent in instances where the Governor declares a state of emergency arising out of a hurricane. The emergency assessment is automatically passed onto policyholders.

The IRS stated in their ruling that emergency assessments may be collected from non-participating insurers who do not receive any consideration from the FHCF. "By assessing the Non-Participants, the State has effectively exercised its power to collect revenue and appropriate such moneys to the Fund. In relation to other sources of moneys, raised through its exercise of state power to collect payments by Non-Participants, is significant."

The FHCF was created as part of an existing state entity – the State Board of Administration consisting of Florida's Governor, Comptroller, Treasurer and Insurance Commissioner. The FHCF maintains a small staff that manages and implements policy decisions. Moneys in the fund are limited to protecting and advancing the state's interest. The Department of Insurance enforces the rules adopted by the FHCF including the ability to levy emergency assessments. By exercising direct control over

the FHCF, the IRS found this to be a favorable factor in concluding that the FHCF is an integral part of the state.

The FHCF provides that all assets of the fund revert to the state upon termination of the fund. The California Earthquake Authority and the Hawaii Hurricane Relief Fund have similar provisions. A factor in convincing the IRS to grant tax-exempt status was "the state will receive the assets of the Fund upon the termination of the Fund."

The use of taxes or post-event assessments on policyholders to finance revenue bonds for a catastrophe state fund camouflages the true cost of property insurance in New York, forcing low-risk upstate homeowners to subsidize high-risk downstate homeowners. For example, if the fund lacks sufficient moneys to reimburse insurers for their homeowners' insurance losses, the fund will issue revenue bonds. The FHCF levies an emergency assessment of 2 percent to 4 percent to finance its revenue bonds. The emergency assessment is applied to prior year's gross written premium for all property and casualty business except for workers' compensation; this assessment continues until the bonds are retired. The emergency assessment is automatically based onto all policyholders throughout the state.

As of April 1998, the FHCF could issue roughly $8 billion in tax-exempt bonds. In Florida, the 4 percent emergency assessment on personal lines in 1996 would have raised roughly $347 million annually over a ten-year period. It is estimated that in the event of a $30 billion hurricane, the emergency assessment would increase the cost of homeowners' insurance by $60 per $1,000 in pre-event homeowners' insurance premiums.

A second layer of cross-subsidization occurs with the "reimbursement premium" paid into the FHCF. Insurers are required to pay annually into the FHCF and its prices are based on catastrophe computer modeling. Under law, this payment of reimbursement premium is also automatically passed on to all homeowners' insurance policyholders. Yet, because of other factors, the policyholders in high-risk areas do not assume the entire share of the "reimbursement premium" based upon their level of hurricane exposure. Instead, these amounts are assumed by policyholders in low-risk areas and a disincentive is created for writing policyholders in high-risk areas.

A healthy market requires, at a minimum, competitive market pricing and minimal barriers to entry and exit. Creating a catastrophe fund suggests that New York homeowners should be subsidized by other policyholders. Just the opposite is needed. A healthy market requires that all New York policyholders pay actuarially sound rates. Any conscious insurance mispricing would produce irrational behavior.

The notion of providing subsidies across lines of insurance, moreover, is fundamentally inconsistent with sound insurance regulation. New York law generally recognizes that lines of insurance should be regulated separately. Rate filings, for example, must be prepared separately for each line of insurance to ensure that all policyholders pay premiums that are neither inadequate nor excessive. Cross-subsidization of lines of

insurance, by contrast, ensures either that some policyholders will pay rates that are too high or that insurance rates generally will be suppressed below the point at which insurers can earn a fair rate of return on the capital they place at risk to serve New York policyholders. Neither result is sound or fair; and neither result will contribute to making hurricane insurance more available in the state. The bedrock of any constructive reform to New York's insurance market must be that all policies shall carry actuarially sound rates.

As described above, the FHCF may levy a 2 percent to 4 percent emergency assessment on all lines of property and casualty insurance except workers' compensation. Obviously, this assessment provides a means of obtaining a subsidy from other lines of commercial insurance to cover homeowners' insurance losses. In Florida (based upon 1996 numbers), a 4 percent emergency assessment will annually raise $32 million from liability insurance policyholders, $29 million from commercial automobile liability policyholders, $46 million from commercial multiple peril policyholders and roughly $100 million from policyholders of other lines of commercial insurance.

Whether the FHCF is a solution with regard to mega-catastrophes remains untested. No one can guarantee that the market will be stable after a mega-catastrophe because of the existence of the FHCF. In fact, it is more likely that instability will exist because once the FHCF is exhausted, insurers will find themselves unprepared for the next hurricane and will have to seek reinsurance from the private market. However, unlike Hurricane Andrew, this instability occurs at the very same time that the FHCF makes an annual demand of $440 million to rebuild the moneys in the FHCF.

The private market also is more efficient than a state fund in managing catastrophe exposures for all perils. A major winter storm could produce losses similar to a hurricane striking New York. Yet, retained earnings of the FHCF are used only to support coverages reinsured by the FHCF (New York residential property insurance in this instance) and cannot be used to support any other kind of insurance underwriting. Those funds in the private sector would be used to support insurance underwriting of other lines and in other states while supporting New York residential property insurance.

By creating dependence on a state fund, it may also produce negative behavior with regards to an insurer's underwriting practices. If an insurer's retention for catastrophe losses is negligible because of a state fund, it may diminish a property insurer's incentive to underwrite in a prudent and sound business fashion and thereby, place New York property insurance consumers at risk. Some insurers may over-concentrate their exposure or choose to accept risks without regard to insurability, cede almost all of the hurricane exposure to the reinsurance fund, and let the fund and industry as a whole bear the burden of insuring these risks. Because sound underwriting is the key to sustaining insurer solvency, such a practice increases the industry's risk and, ultimately diminishes availability by impairing the health of the industry.

Capacity of the pool, particularly in early years, is based on borrowing capability. Mandatory post-event participation is needed to collateralize repayment of that debt. Yet, the mandatory nature of the FHCF denies insurers writing in the state the right to make their own reinsurance decisions. Insurers that have followed prudent underwriting and managed their catastrophe exposure are rewarded with the additional cost of mandatory participation.

What if the state created a voluntary fund and no one joined? Or, in other words, would insurers have the need to participate in a state fund if it is voluntary? The Hawaii Hurricane Relief Fund (HHRF) permits an opt-out for insurers. Many national insurers decided not to participate. Recently, State Farm filed to opt-out of the HHRF effective March 1, 1999. As a result, the purpose of the HHRF has come into question and the state may reevaluate its need.

The FHCF requires mandatory participation of all 292 insurers (except surplus line insurers) writing homeowners' and residential-type structures. Once established, several insurers unsuccessfully launched a constitutional challenge against mandatory participation and commercial property insurers successfully convinced the Legislature to exclude them from the FHCF. (However, the FHCF still provides for an emergency assessment on all lines of insurance except workers' compensation.)

While mandatory, the FHCF permits some choice through three levels of participation: 90 percent coverage, 75 percent coverage, and 45 percent coverage. Participation at the 90 percent level provides greater coverage to an insurer and results in higher reimbursement paid to the FHCF than the 45 percent level of participation. One hundred and forty insurers representing 86% of the hurricane exposure of the homeowners' insurance market selected the 90 percent level in 1996-1997. However, even in highly exposed Florida, 49% of all insurers representing 12% of total exposures selected the minimum level of participation in 1998-1999. Whether these insurers would participate in a voluntary fund is unclear. (It should be noted that the number of insurers participating in the Florida homeowners' insurance market is impacted by the moratorium on cancellation and nonrenewal which expires on June 1, 1999.) In any event, the need for insurers to participate in a state fund in New York is significantly less in New York because the severity and frequency of a hurricane is significantly less.

There is no guarantee that a catastrophe reinsurance state fund will provide stability after a mega-catastrophe. For example, the FHCF has no second event capacity. Once the mega-catastrophe drains the fund, it must begin at square one to rebuild. In the interim, problems will occur the day after the fund is depleted.

Primary insurers would be required to continue to pay reimbursement premiums to the FHCF (to help retire the fund debt) while the fund is unable to provide any coverage (all assets and debt capacity having been used). While continuing the mandatory premium payments, the primary insurers would be required to replace the FHCF coverage in the private reinsurance market. By relying too heavily on the fund, the industry may create conditions similar to the market instability after Hurricane Andrew.

In addition, in the early years of the fund, insurers would lack confidence in the fund's ability to meet its obligations because of the limited amount of money collected by the fund. The fund would also be viewed as an untested entity. As a result, prudent insurers would still purchase duplicative reinsurance from the private market -- thus, insurers would pay twice for the same reinsurance coverage -- once to the state and once to the private market. In addition, FHCF prices are based on full coverage while the fund is able to cover only a limited amount of that coverage, particularly in the early years. Purchasing duplicative reinsurance and the levy of a new charge on insurers could produce disruption in the market.

In the early years, a fund would not immediately improve insurance availability. Advocates for a reinsurance fund contend that a fund would have a beneficial impact on the availability of homeowners' insurance. A fund would be financed by reimbursement premiums collected by insurers and these premiums would accumulate over a period of time. However, it would take a decade before the fund could be considered a "backstop" or have a beneficial impact on the behavior of insurers. In the interim, the fund would rely almost exclusively on a level of debt to pay bonds.

IX. Summary & Recommendations

The Temporary Panel on Homeowners' Insurance concludes that homeowners' insurance in coastal communities is available and that a New York State insurance catastrophe fund is not needed. The number of homeowners' insurance policies written by the New York Property Insurance Underwriting Association (NYPIUA) has leveled off and the number of new NYPIUA policies is starting to decline. In the highest exposed area, NYPIUA has a coastal market share of only 1.9 percent in Nassau and Suffolk counties. In addition, policies written through the Coastal Market Assistance Plan (C-MAP) has been less than anticipated as evidenced by the fact that insurers have written only 2,900 out of the 5,000 policies under the commitment. These findings mirror the Panel's observations in 1998. It is expected that the coastal markets will continue to improve in 1999.

The Panel also concludes that the property and casualty insurance industry is better prepared to handle catastrophic events since Hurricane Andrew in 1992. The industry's surplus rose from $193.1 billion in 1994 to $342.0 billion in 1998. In addition to the strength of primary insurers, reinsurers are estimated to provide a minimum of $7 to $10 billion in reinsurance coverage in any one geographical area. There is an overabundance of capacity in the reinsurance market and catastrophe pricing is being driven down by the high level of excess capacity.

Supplementing the traditional reinsurance market is additional capacity from the capital markets. The capital markets funding of catastrophe natural exposures has grown from one transaction in 1994 totaling $85 million to eighteen transactions in 1998 totaling over $3 billion. This market is expected to continue to grow.

Based upon the review of these factors, the Panel concludes that the insurance industry is sufficiently positioned to absorb the impact of a major hurricane striking New York. The property and casualty industry has already handled multiple natural catastrophes producing insured losses between $2 and $18 billion. Based upon catastrophe computer modeling, the 1-in-100-year hurricane would produce estimated commercial and residential losses of $3.9 billion in New York. Other models may produce a slightly higher or lower number for the 1-in-100-year event. This exposure is well within the industry's current capacity to absorb, and is significantly smaller than the $35 billion in catastrophic losses handled by the industry from 1992 through 1994 when industry-wide surplus was only about 55% as large as it is today. Unlike California and Florida, which have established state catastrophe funds, New York does not experience the same severity and frequency of natural catastrophes.

Creation of a state catastrophe fund raises a number of public policy concerns. For example, a viable fund must be exempt from federal taxation and such an exemption requires significant state involvement and capital contribution from the state. Depending upon the structure of the fund, cross-subsidization could occur among lines of insurance such as policyholders in low-risk areas subsidizing high-risk areas, and commercial policyholders subsidizing homeowners' insurance policyholders. The use of taxes or post-event assessments on policyholders to finance revenue bonds for a catastrophe state fund camouflages the true cost of property insurance in New York, forcing low-risk homeowners to subsidize high-risk homeowners. Finally, creation of state catastrophe funds could retard the aggressive development of private market solutions that are being presently developed (*e.g.,* capital markets and other private market alternatives discussed in this Report).

In light of the ability of the property and casualty industry to handle a major hurricane striking New York and the possible disadvantages associated with a state catastrophe fund, the Panel, after much discussion and review, recommends against the creation of a state catastrophe fund in New York. Two members of the Panel did not concur in this conclusion.

MARKET DYNAMICS SUBCOMMITTEE REPORT

Members of the Market Dynamics Subcommittee

E. John Cucci	**Alliance of American Insurers, Chairman**
Joseph Calvo	New York Property Insurance Underwriting Association
Michael Eserner	New York Property Insurance Underwriting Association
Bill Goff	Allstate Insurance Company
Janet Glover	New York Insurance Department
Anthony Granito	Orion Specialty
Benita Hirsch	New York Insurance Department
Floyd Holloway	State Farm Insurance Company
Doug Joseph	State Farm Insurance Company
Shelly Kozel	Lezok Ltd.
Mark Kriss	Alliance of American Insurers
Tom Lutz	Professional Insurance Agents of New York
Patricia Mann	New York Insurance Department
Bill Melchionni	Nationwide Insurance Company
Charles Rapacciuolo	New York Insurance Department
Dan Robinson	New York Central Mutual Insurance Company
Michael Rosenzweig	Rosenzweig Financial Services
George Yates	Independent Insurance Agents of New York
Anthony Yoder	New York Insurance Department

Market Dynamics Subcommittee Report

I. Purpose of the Subcommittee

The Market Dynamics Subcommittee of the Temporary Panel on Homeowners' Insurance was charged with conducting an analysis of homeowners' deductibles (disclosure and triggers), mitigation efforts to reduce loss, and the current state of capital markets in the funding of catastrophe exposures.

II. History and Current Status of Hurricane Deductible Programs in New York

In its 1996 report, the Temporary Panel on Homeowners' Insurance Coverage recommended that the Insurance Department should "approve appropriate large deductibles for hurricane damage." The report noted that "one of the most significant means of reducing probable maximum loss [PML] is the use of large deductibles applicable to catastrophe generated losses. By mandating that every policy contain such a deductible, a company will drastically reduce its insurable losses. The Panel strongly recommends that companies file and the Insurance Department approve appropriate large deductibles for hurricane damage." PML is the maximum dollar loss that an insurance entity would in all likelihood incur for a particular event.

The 1996 Panel predicted that this step would produce a market improvement in availability of homeowners' insurance. Since that time, the market availability for homeowners' insurance has indeed continued to improve. There are many reasons for this, and the leadership of the New York State Insurance Department in structuring and approving a program of hurricane deductibles has been a major factor in improved market availability.

This deductible program along with the Coastal Market Assistance Program and the continued re-authorization of New York's residual market mechanism (NYPIUA) have contributed greatly to the normalization of the market for Long Island consumers. Concerning NYPIUA, it was the unanimous opinion of the Panel that NYPIUA's legislative authority be made permanent in order for it to facilitate liquidity in the event of a catastrophe. The 1998 Panel made the same recommendation.

In general, policy deductibles are contract terms stating that an insurer's obligation to pay claims begins at a certain level of loss (the deductible amount). Claims that do not reach this amount, and damage costs below this amount (when the claim exceeds the deductible) are not paid by the insurer.

Traditional homeowners' contract deductibles have been expressed as relatively low dollar amounts ($250, $500 and $1,000), applicable to all damage claims submitted under the policy. Policyholders generally have been offered a range of dollar-amount deductible options at various prices, with lower deductibles costing more.

In its Supplement to Circular Letter No.11 (1993), the Insurance Department finalized a set of guidelines for homeowners' insurers to use in filing for mandatory and optional deductibles applicable to claims for windstorm damage in coastal areas. The Department's guidelines provide for both "non-catastrophic" windstorm deductibles (applied whenever winds do **not** attain Category 2 hurricane status (i.e., sustained winds of 96 mph or more), as determined by the National Weather Service at landfall anywhere in New York State; and for "catastrophic" windstorm deductibles activated only in the event that Category 2 status or higher is experienced at landfall anywhere in New York State. The "non-catastrophic" guideline for a mandatory deductible is no more than $500.

In addition, the Circular Letter Supplement noted that "an insurer may, with sufficient support, submit for Insurance Department consideration a windstorm deductible filing that differs from the articulated criteria."

As of December 18, 1998, thirty insurers (and two rate service organizations) have received approval for their windstorm deductible programs (see Appendix A). These programs provide for certain mandatory deductibles, ranging from one percent to five percent of Coverage A (dwelling amount of insurance), that apply under certain weather conditions and are applied to the peril of wind. Optional deductibles are available at higher percentages for a premium credit.

Company deductible programs vary considerably in the triggering events that activate these deductibles. Factors that affect the application of the deductible include sustained wind speed, the point of storm landfall, and declaration by the National Weather Service.

III. Areas of Agreement: Structure and Disclosure of Hurricane Deductibles

While there was a difference of opinion on the Subcommittee concerning the flexible deductible program now in use as opposed to mandating standardized more uniform deductibles, the entire Subcommittee was in total agreement on the following:

- The deductible triggering event should be measured by: (1) maximum one-minute average sustained wind speed at a defined altitude within New York State; and (2) occurring within a named hurricane and not by storm surge or barometric pressure measurements.

- Insurers should offer policyholders an option of lower deductibles amounts if the policyholder undertakes significant mitigation efforts to protect the insured property.

- Insurers should be permitted to use computer modeling to support rate and deductible filings.

- Insurers should take steps to improve overall consumer understanding of <u>all</u> types of deductibles.

- Insurers that use deductibles for catastrophic management purposes should use specific hurricane deductibles in lieu of minimum all-peril deductibles.

- Full and adequate disclosure is vital to the success of the current deductible program, and Regulation 159 clearly spells out disclosure requirements. However, special efforts should be made by the Insurance Department during market conduct exams to specifically ascertain whether disclosure notices required by the Regulation were sent as required.

- When insurers notify insureds as to what deductibles are operative on their coverage, they should simultaneously notify producers so producers can also structure information and education programs for insureds.

- It is recommended that strong consideration be given by insurers to the use of a supplemental notice to facilitate consumer education. This notice can be general in nature and should remind policyholders that questions regarding deductibles or requests for additional information can be directed to their agent or company. The notice should be sent just prior to hurricane season.

- The Insurance Department should issue Public Service messages just prior to and throughout the hurricane season.

- Prior to and throughout the 1999 hurricane season, the Insurance Department should undertake a comprehensive public education campaign directed toward residents of areas where windstorm deductibles are in use.

- The Insurance Department should educate the public on the new opportunities for discounts for installation of hurricane-resistant glass and other mitigation steps available to them.

IV. The Argument for Standardized Deductibles

Subcommittee members were divided as to whether the standardized or flexible deductible approach was the most suitable for the New York homeowners' insurance market. This section summarizes the major strengths of the standardized approach, while Section V makes the argument for flexible deductibles.

All Subcommittee members are of the opinion that the use of deductibles assist carriers in managing their exposure in coastal markets; however, because of the diversity of triggering events and other variables, there is a concern among some members regarding the level of consumer understanding of deductibles and how they operate. A recent study conducted by the Independent Insurance Agents Association of New York indicated that 78 percent of Long Island homeowners surveyed did not know whether their policy had a windstorm deductible. (With the introduction of the mandatory disclosure form effective January 1, 1999, it is anticipated there will be increased consumer recognition of their true exposure.)

When asked how a windstorm deductible is calculated, nearly three-quarters (72 percent) did not know. Also, consumers were confused as to what deductible percentage would apply to their claims. Some respondents (14 percent) thought it was either a set amount or it was based on a percent of the claim, while another 14 percent correctly stated that the deductible amount is a percent of the insured value of their home. Of the homeowners surveyed, the majority (59 percent) did not know what triggered the deductible.

Critics of the present deductible program also point to recent Mississippi experience where coastal residents in that state filed a lawsuit challenging hurricane deductibles on homeowners' policies that insureds claim they did not understand until Hurricane Georges occurred. The courts have been petitioned to grant the case class-action status. In the interim, the Insurance Commissioner has asked insurers to voluntarily withdraw previously approved percentage wind deductibles (which were set at a standardized two percent) "due to the confusion, misunderstanding and severe hardship suffered by residents" affected by Hurricane Georges.

Accordingly, there were members who felt that deductibles should be standardized to avoid consumer confusion. In that vein, those Subcommittee members opting for standardization offered the following recommendations:

- In order to limit the frequency of triggering “CAT” deductibles, the minimum trigger should be 96-mph, one-minute sustained wind. If individual companies can demonstrate the need for additional deductible relief for storms of 74-to-95 mph, then they can be granted a higher flat deductible (perhaps $1,000), as a means of managing frequency of claims in these Category 1 types of storms.

- “Stepped-Up” deductible filings which trigger higher percentage deductibles as sustained wind speeds increase could be one way of increasing participation of the property owner as the severity of the wind increases. This concept, according to its adherents, is one the public could easily grasp through an educational effort.

- As a standard practice, annual disclosure notices of hurricane deductible triggers and amounts should be provided to homeowners just prior to the hurricane season. The notices should be company-generated.

- The wind speed for hurricane deductible percentage triggers should not be the wind speed for a Category 1 hurricane. The Category 1 wind speed criterion is too low.

V. The Argument for Flexible Deductibles

There was equally strong sentiment expressed by other Subcommittee members that maximum flexibility be maintained in the current deductible program if a free and open market is to be maintained and to help encourage further growth of that market. Their feeling is that the Insurance Department’s present program has in general created much needed opportunities within specific guidelines for insurers to increase market share in coastal areas of New York State. They point to the necessity for companies to establish individual underwriting guidelines, set rates that are adequate and not excessive in compliance with Insurance Department requirements, and determine marketing strategy while managing exposures and offering consumers viable choices. While this may result in some residents of the same area having different deductibles at the time of a catastrophic event, they ask the consumer to share only a manageable portion of the risk, while preserving product availability and affordability.

Moreover, they argue that promulgation and implementation of Regulation 159 should ameliorate the concern raised by some that the insured public is not aware that they have a hurricane deductible appreciably greater than the standard pre-Hurricane Andrew deductible, under what conditions the deductible is triggered, and to what property values it applies.

Additionally, it is the feeling of Subcommittee members who support the current flexible program as compared to a “one size fits all” approach that: the trigger for any hurricane deductible should be any named hurricane that strikes land in New York State. Percentage options (minimum of two percent) should be offered to customers allowing them to choose those options that suit their individual needs. This deductible would replace any specific dollar deductible for hurricane events only. Rules such as these

would allow companies to alter their positions depending on market and financial conditions.

Using a trigger above that of a Category 1 storm could cause market displacement as this may not mesh with a company's marketing or financial position. While larger **fixed** dollar, *e.g.*, $1,000, hurricane deductibles will help, Probable Maximum Loss would likely be higher than insuring those risks with a two-percent deductible. For a company with significant coastal exposure, the PML could be as much as 35-40 percent higher. This would necessitate either a restriction in marketing or an increase in premium or both on the part of companies.

VI. Applied Insurance Research (AIR) Deductible Impact Study

To put the standard *v.* flexible deductible issues into perspective, the Subcommittee asked Applied Insurance Research (AIR) of Boston, Massachusetts, to conduct a study along the following lines:

(a) To estimate the industry's ground-up homeowners' losses (excluding losses from renters and condo policies and assuming no deductible) for Saffir-Simpson Category 1-5 hurricanes (separately in Suffolk, Nassau, Kings, and Queens Counties).

(b) To apply to the above estimates a two and three percent deductible (of Coverage A) and a flat $1,000 deductible (all separately).

AIR agreed to do this research and furnish it to the Subcommittee at no charge. A complete copy of AIR's deductible impact study, entitled "Hurricane Loss Analysis - Homeowners" is attached as Appendix C.

In arriving at the estimated total insured property losses in accordance with (1) and (2) above, AIR used its proprietary database of numbers and values of residential properties by postal code. Please refer to Appendix A of the attached AIR study for a detailed description of AIR's proprietary database. For added clarification, the AIR loss estimates reflect hurricane losses resulting from both landfalling and non-landfalling hurricanes, do not reflect either storm surge or demand surge losses, and assume all properties are 100 percent insured to value.

Based solely upon the data contained in Exhibits I-IV of the attached AIR study, the following conclusions can be inferred:

(a) There *does not* appear to be an appreciable industry loss savings (as a percentage or straight dollar amount) associated with moving from a $1,000 flat deductible to a two percent deductible proportional to the value of the home for Saffir-Simpson Category 1 and 2 hurricanes for the 50, 100 and 250 year return period storms in Kings, Queens, Nassau and Suffolk counties.

(b) There *does* appear to be an appreciable industry loss savings (as a percentage and straight dollar amount) associated with moving from a $1,000 flat deductible to a two percent Coverage A deductible for Saffir-Simpson Category 3, 4 and 5 hurricanes for the 100 and 250 year return period storms in Kings, Queens, Nassau and Suffolk counties.

(c) There *does* appear to be an appreciable industry loss savings (as a percentage and straight dollar amount) associated with moving from a two percent Coverage A deductible to a 3% Coverage A deductible for Saffir-Simpson Category 3, 4 and 5 hurricanes for the 100 and 250 year return period storms in Queens, Nassau and Suffolk counties.

It should be emphasized that the AIR study yields industry aggregate losses and that the incorporation of the above deductibles or any other "standardized" deductibles will have a different loss impact from one insurer to another. There is no way to accurately assess the impact of "standardized" deductibles on any individual insurer's book of business without taking into consideration such things as the insurer's market concentration (both in total and coastal *v.* inland in hurricane-prone counties), catastrophe reinsurance coverage, existing rate adequacy, etc. In this respect, some insurers involved in the Subcommittee's deliberations indicated that in their view moving from a two percent deductible to a $1,000 flat deductible in areas of Long Island, where they have significant coastal exposure, could increase their PML by as much as 35-40 percent.

VII. Regulation 159

Regulation 159 was issued on September 4, 1998, as an Emergency Measure to mandate deductible disclosure requirements in the interest of full policyholder understanding of such. The Regulation requires that:

> (a) Every homeowner's and dwelling fire personal lines policy containing a hurricane deductible shall display the applicable percentage amount and corresponding dollar amount of the hurricane deductible in the policy declarations. The non-hurricane deductible, as well as any deductible applicable to all other covered perils, may be shown as a dollar amount only. The hurricane deductible provisions shall be shown in close proximity to the non-hurricane deductible provisions and shall be given equal or greater prominence as the non-hurricane deductible provisions applicable to the policy.
>
> (b) Every homeowner's and dwelling fire personal lines policy containing a hurricane deductible shall be accompanied by a policyholder notice, to be filed with the Insurance Department, and which shall contain the following minimum information:

(1) A prominent announcement that the accompanying policy is subject to a hurricane deductible;

(2) A clear explanation that a hurricane deductible means the amount for which the policyholder is responsible in the event of a covered loss caused by a hurricane;

(3) A plain-language explanation of the coverage part or parts subject to the hurricane deductible and of whether the hurricane deductible applies separately to each coverage part or in the aggregate to total losses under all affected coverage parts;

(4) A statement that a clear display of the actual dollar amount as well as a description of the hurricane deductible as a percentage of the insured value can be found on the declarations page;

(5) Generic examples of how sample deductible amounts would apply to some theoretical loss scenarios, including losses smaller than and greater than the deductible amount;

(6) A clear explanation of the event which shall trigger the hurricane deductible;

(7) A clear explanation of the time period during which the hurricane deductible will be triggered; and

(8) A clear explanation that, if a coverage part limit of liability or policy limit of liability is changed (for example, due to contractual inflation protection provisions, adjustments reflecting changes in replacement cost or a request by the insured), then the dollar amount of the deductible will be changed based on the amount of the new limit of liability.

(c) This policyholder notice shall accompany all new homeowners and dwelling fire personal lines policies subject to a hurricane deductible and first written to become effective on or after January 1, 1999; and all renewal homeowners and dwelling fire policies subject to a hurricane deductible renewed effective on or after January 1, 1999.

Although notices mandated by Regulation 159 are required to be submitted to the Insurance Department for their review, it was the feeling of the Subcommittee that special efforts should be made during market conduct exams to specifically ascertain whether such notices had been sent as required by the Regulation.

VIII. Consumer Education Efforts

While the Subcommittee was divided on the issue of standardized deductibles *v.* a flexible deductible approach, there was unanimous agreement that prior to the 1999 hurricane season, the Insurance Department should undertake a comprehensive public education campaign directed towards residents of areas where windstorm deductibles are in use. Property owners would be encouraged to:

- Discuss their coverage with their insurance agent or company to determine whether their policy is subject to a windstorm deductible. In this respect, insurers, when notifying policyholders as to what deductibles are operative on their coverage, should simultaneously notify the agent. In this way, the agent will also be able to structure policyholder information and educational programs to supplement insurance company and Insurance Department efforts.

- Such discussions would focus on making sure the insured has a full understanding of the extent of their liability in the event of loss and determine whether the full extent of their liability is acceptable to them.

- If not acceptable, insureds should be made aware that alternatives such as "buy-backs" of the deductible are available.

Moreover, the Subcommittee was also united in their view that the Insurance Department should educate the public of the new opportunities for discounts for installation of hurricane resistant glass along with other mitigation steps they can take.

IX. Mitigation

A. Building Codes

A critical recommendation of the Panel in 1998 was the adoption and enforcement of performance-based building codes and uniform building codes throughout coastal New York and New York State. Enforcement at a local level was also viewed as essential. During the 1998 legislative session, legislation was introduced to require New York State to adopt the BOCA National Building Code and related codes in place of current New York State Uniform Fire Prevention and Building Code. In lieu of adoption of BOCA, Chapter 131 of the Laws of 1998 was enacted into law requiring the Department of State to undertake a comparison study and report of the present New York Code and the BOCA codes.

The Code Comparison Study was completed in November of 1998 and concluded:

> In summary, the project team believes that the BOCA National Fire Prevention Code will be easier to enforce, easier to administer, that it has the potential to promote economic development and it will increase public safety. Adoption of the BOCA National Fire Prevention Code will result in

potential conflicts with other state agencies unless a more detailed comparison of the affected state regulations is performed and will most likely increase the cost of compliance for existing buildings.

The Subcommittee believes that the lack of an effective New York State performance-based building code needs to be addressed during the 1999 legislative session. While it is difficult to quantify dollar savings from such a code, nevertheless it remains a critical component in attaining loss mitigation in coastal New York.

Irrespective of the legislative outcome regarding BOCA, an effective mitigation strategy must include action that reduces expected losses for existing structures. Generally, adoption of stronger building codes and enforcement will only impact new construction. Consideration should be given to requiring replacement roofs to meet or exceed code performance criteria for new construction in instances where 50 percent or more of a roof covering undergoes replacement.

B. Education

The February 1, 1998, Panel Report emphasized the critical role consumer education plays in encouraging homeowners to take action in protecting their families and possessions from hurricane risk. As risk assessment modeling and other research provide increased information on the threat to individual structures and effective alternative mitigation actions, dissemination of the availability of such information is essential.

Education efforts should include public service announcements and the distribution of brochures currently available through entities such as FEMA and the Institute for Business and Home Safety. Public/private partnerships of organizations and governmental agencies coming together with a goal to support mitigation should be encouraged. Motivating people to address natural hazards requires a multi-faceted educational approach and is not a singular act. It is a process that can take months and years. Many voices must be involved -- TV, radio, print media, videos, brochures, schools, etc. Children make excellent messengers and school-based educational awareness is a key component.

The creation of the mitigation demonstration center at SUNY Maritime College, Fort Schuyler in the Bronx, sponsored by numerous insurers, the Institute for Business and Home Safety, and others, together with the attendant publicity, has helped to raise public awareness of the natural disaster risk in New York. Ongoing public awareness activities at this location should be encouraged.

C. Incentives for Mitigation

The February 1, 1998, Panel Report noted that there is a need for a range of both public and private incentives to encourage homeowners (of existing homes) and

builders and new home purchasers to retrofit or purchase homes that offer protection against hurricane risks.

The risk of loss or damage to property, including family pictures and other sentimental objects and possessions, is significantly greater in New York's coastal areas than commonly believed. Education of the risk together with the growing use of higher hurricane deductibles constitutes a significant means of fostering mitigation efforts. The relatively inexpensive cost of roof tie-downs and other retrofit techniques should be widely publicized, utilizing the educational channels noted earlier in the report.

Additional recommendations contained in the 1998 Panel Report include:

- Implementation of tax incentives for mitigation of loss. These should include exemption from real estate tax assessments on improvements and real estate tax reductions to reflect the value of mitigation, sales tax incentives for approved or certified retrofitting of existing homes, and income tax credits for purchasing or retrofitting existing homes.

- Requiring a certain wind-resistant performance standard before coverage would be available in the New York Property Insurance Underwriting Association remains a public incentive for mitigation that could be transferred to private sector insurance in terms of encouraging underwriting along the coast or underwriting with varying market deductibles or premium credits.

- An economic strategy should be put into effect by insurers to ensure that mitigation is a reasonable and economical choice for the coastal homeowner buyer or builder.

Finally, the State Insurance Department recently promulgated amendments to Regulation 57, providing for reduction in homeowners' rates, where hurricane/storm shutters or hurricane resistant laminated glass windows or doors have been installed. The availability of discounts will help encourage use of these mitigation techniques.

X. Capital Markets

The 1998 Panel Report contained a detailed description of the recent trend toward securitization of insurance risk. Securitization has been established as an alternative source of protection for the insurance industry and is becoming more accepted as an asset class for the investment community. The 1998 Panel Report detailed the nature of this newly evolving market and the benefits it will afford the property and casualty insurance industry and the investment community.

The property and casualty industry's surplus base has grown from approximately $260 billion at the end of 1996 to approximately $300 billion at the end of 1997. Despite this growth, the industry faces the potential of a major catastrophic event estimated to have a probable maximum loss from a domestic catastrophe of approximately $70 billion. An event of that magnitude could put the industry's surplus under severe strain wiping out

one-quarter of the total surplus from a single event. Capital markets as a new source of capital for the industry can dramatically temper this threat.

Due to the relatively small capital base supporting worldwide reinsurance risks, pricing for catastrophe coverage tends to rise dramatically after a large loss. The total value of the capital markets, however, is estimated to be $13 trillion. Considering that the PML from a Florida or California catastrophe is approximately $70 billion, it is likely that the capital markets would be relatively unaffected by an event of this magnitude.

As the number of investors participating in the insurance related capital market grows, issuers of insurance-related securities benefit by having a new and deeper pool of capital to assume risks. As catastrophe risk is spread over this larger capital base, the severe price increases that have traditionally occurred after a large event should be reduced significantly. Reduced volatility of reinsurance cost allows insurance companies to budget more accurately and to benefit from a more stable earnings stream.

The securitization of insurance risk continued its growth during 1998. A summary of press accounts detailing the growth of capital markets compiled by the Reinsurance Association of America is annexed to this report as Appendix B. Evidence suggests that CAT bonds retained liquidity during the turmoil in capital markets triggered by the volatility in Asia, Russia, and parts of South America, during 1998. (Source: Willis Faber Re- Market Review, December 1998.) The stability of CAT bonds during this time frame bolstered the claim that CAT bonds are not correlated to other financial instruments and can play an important role in balancing investment portfolios.

Appendix A
Homeowners' Insurance Deductible Filings
New York State
(as of 1/31/99)

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
American Association of Insurance Services (AAIS) R97005021 11/1/98	Optional, See Note A	The deductible is applicable when a windstorm loss occurs 12 hours before or 12 hours after a Category 2 hurricane, as determined by the National Weather Service, makes landfall anywhere in NYS.	See Note A.	This is a Rate Service Organization. This deductible may be used by member companies that adopt this filing.
Allstate R96002573 7/21/97	5%	The deductible is applicable to a windstorm loss that occurs during the following time period: a) beginning 24 hours prior to the time that a one minute average sustained wind speed exceeding 100 mile per hour at an altitude of 10 meters above any part of NYS during a hurricane, as estimated by the National Hurricane Center; b) during the duration of such hurricane; and c) ending 12 hours after the last time the National Hurricane Center declares that the hurricane has been downgraded to a tropical storm.	Staten Island, Bronx Queens, New York, Brooklyn, Nassau and Suffolk.	A 7% hurricane deductible is available on an optional basis to the insured.
Chubb	5% mandatory hurricane deductible to be applicable up to 1 mile on the North Shore of Nassau & Suffolk & up to 5 miles on the South Shore of Nassau and Suffolk. The remainder of Nassau & Suffolk will receive a 3% hurricane deductible.	Category 1 hurricane Trigger.	Nassau and Suffolk.	Hurricane deductible capped at $50,000 The insured has the option of installing an approved windstorm protection in accordance with Chubb's guidelines, thereby eliminating this hurricane windstorm deductible.

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
CIGNA Indemnity & Indemnity Co. of North America R97000645 3/1/97	3%	The hurricane deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared the National Weather Service to be category 1,2,3,4 or 5 hurricane.	Nassau, Suffolk, Brooklyn, & Queens.	Have a $1500 all wind deductible within 2500 ft. from the affected areas. ***Approved on an experimental basis.***
CIGNA - applicable to the rest of the companies other than those approved for the Special Long Island Program R97004459 1/16/98	3%	category 1 or higher hurricane	applicable within 2500 feet of an ocean, sound, bay or similar body of water in the following counties: Nassau and Suffolk Kings, Queens, Richmond, Westchester and Bronx	Optional 5% hurricane deductible is available. Currently Cigna has on file with the Dept., a Special LI Program which provides for: a mandatory 3% hurricane deductible to be applicable in LI, Brooklyn and Queens; a $1500 all wind deductible to be applicable with in 2500 feet from the shore and an optional 5% hurricane. The Special LI Program is approved for only 2 of Cigna's companies: Indemnity Insurance Company Of North America and Cigna Indemnity Insurance Company
Clarendon R98003095 9/15/98	**Optional hurricane** deductibles, ranging from 2%, 5% &10%.	Trigger is a category 2 hurricane, making landfall in NYS.	Available only for the coastal areas	**Disclosure notices comply with Reg. 159.**

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
CNA Companies R96002456, 7, and 8 3/15/97	5% for risks located 1 mile or less from the shore; 2% for risk located more than 1 mile but less than 5 miles from the shore; 1% for risks located more than 5 miles from the shore within the entire coastal area.	Category 1 or higher hurricane as designated by the National Weather Service, at the time it impacts anywhere in New York.	Brooklyn, Queens, Westchester , Nassau, Suffolk, Bronx, Richmond, & New York counties.	Higher hurricane deductibles may be elected on an optional basis.
Colonial Penn R94002511 & R94002536 1/30/95	See Note A.	The deductible is applicable to a windstorm loss if, according to the National Weather Service, a Category 2, 3, 4 or 5 hurricane makes landfall anywhere in New York State within 12 hours before or 12 hours after windstorm loss.	See Note A.	
Commercial Union R96002138 07/31/96	See Note A.	The deductible is applicable to a windstorm loss if, according to the National Weather Service, a Category 2, 3, 4 or 5 hurricane makes landfall anywhere in New York State within 12 hours before or 12 hours after windstorm loss.	See Note A.	
Fireman's Fund	2% or 1%.	The deductible applies to losses which occur as a result of either: a) a Category 1 or higher hurricane making landfall in NYS, or b) a hurricane making landfall outside of NYS, but which is determined by the National Weather Service to be a Category 1 or higher hurricane force winds in the area within NYS in which the losses occur.	Mandatory 2% for Nassau and Suffolk. Mandatory 1% for SI, Queens, & Brooklyn.	Optional 2% 5% and 10% hurricane deductibles are available.

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
General Accident R94003043 1/18/95	See note A.	The deductible is applicable to windstorm loss to covered property, that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in New York State as declared to be a Category 2, 3, 4 or 5 hurricane by the National Weather Service.	See Note A.	
Hartford R97000014 03/97	5%.	The hurricane deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared by the National Weather Service to be a category 1,2,3,4 or 5 hurricane.	Entire coastal area (Note A) except for the Bronx and Westchester Counties.	Renewal business will have the option to buy back to the expiring current policy deductible.
Insurance Services Organization (ISO)	Optional, See Note A	The deductible is applicable when a windstorm loss occurs 12 hours before or 12 hours after a Category 2 hurricane, as determined by the National Weather Service, makes landfall anywhere in NYS.	See Note A.	This is a Rate Service Organization. This deductible may be used by member companies who adopt this filing.
Lancer R93004181 12/28/93	See Note A.	The deductible shall be activated only in the event a Category 2 Storm, as defined by the National Weather Service, makes landfall within the geographic boundaries of the State of New York and shall apply only to losses as a result of that storm for damage and loss covered under the peril of windstorm.	See Note A.	
Merchants Mutual R94001257 6/1/94	Adopted ISO's deductible with the exception of a mandatory $500 windstorm deductible for the affected areas.	Does not have a mandatory hurricane deductible, however, has a mandatory $500 all wind deductible.	Kings, Queens, LI, SI, Westchester , and Bronx.	$2000 mandatory standard windstorm deductible applicable to C-Map policies only. Company has not implemented ISO's filing.

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
Metropolitan Property & Casualty R96004067 12/31/96	The policy deductible is mandatory and an optional 2% and 5% Hurricane deductible is available.	The deductible is applicable to a loss caused by a hurricane windstorm. A hurricane windstorm means a windstorm and accompanying winds along its path, which is identified and recorded as a hurricane by the National Hurricane Center or any agency responsible for identifying and recording hurricanes.	SI, Queens, Bronx, Brooklyn, Nassau, and Suffolk.	Base premium for the affected territories does not include hurricane windstorm coverage. It must be added for a charge. The surcharge factors vary depending upon the territory and the amount of the deductible. The policy deductible is mandatory and an optional 2% and 5% Hurricane deductible is available.
National General R95000785 1/17/96	1%	The deductible is applicable to a windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm, which caused the loss, makes landfall anywhere in New York State as declared Category 2, 3, 4 or 5 hurricane by the National Weather Service.	LI South Shore, Bklyn, Queens, SI, and LI Forks.	
Nationwide R96002213 10/4/96	2%	The deductible applies in the event of a loss caused by any one storm declared to be a hurricane by the National Hurricane Center/Tropical Prediction Center; and makes landfall in NYS or contiguous states; and causes loss in NYS while it is a hurricane or throughout any subsequent downgrades in storm status by the National Hurricane Center/Tropical Prediction Center, until it is no longer a tropical storm.	Bronx, Kings, NY, Queens, Richmond, Westchester , Suffolk, & Nassau Counties.	Higher hurricane deductibles may be elected on an optional basis.

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
NY Casualty	1%	The hurricane deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared by the National Weather Service to be a category 1,2,3,4 or 5 hurricane.	Kings, Queens, Richmond, Suffolk, & Nassau Counties	
NY Central Mutual R97004079 7/21/98	3% & 5%	The deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared by the National Weather Service to be a Category 2, 3, 4, or 5 hurricane	Bronx, Kings, Queens, Richmond, Suffolk, & Nassau Counties	The 3% mandatory hurricane deductible would be applicable in the event of a category 2 or 3 hurricane makes landfall in NYS and the 5% mandatory hurricane deductible would be applicable in the event of a category 4 or 5 hurricane makes landfall in NYS. It should be noted that **only 1** of the hurricane deductible would be applicable, depending upon the category of hurricane that makes landfall in NYS, **e.g.** if a category 2 hurricane makes landfall then **only** the 3% deductible would be applicable and if a category 5 hurricane makes landfall then **only** the 5% deductible would be applicable.

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
Peerless R97002559 10/15/97	2%	The hurricane deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared by the National Weather Service to be a category 1,2,3,4 or 5 hurricane.	Staten Island, Queens, Bronx, Brooklyn, Westchester , Nassau and Suffolk.	
Providence Washington R96004809 6/1/97	1%	The deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared by the National Weather Service to be a Category 1, 2, 3, 4, or 5 hurricane.	See Note A.	
Prudential R94003476 & R94003999 12/15/94	2%	The deductible is applicable to a windstorm loss caused by winds in New York from at least a Category 2 hurricane as classified by the National Weather Service.	See Note A.	$500 windstorm deductible with the option of buying back to the regular policy deductible.
Royal	2%	Category 1 Hurricane. Trigger not confirmed.	Nassau and Suffolk counties.	For the remaining affected territories, these hurricane deductibles are optional.
St. Paul R98000804 7/30/98	1% &2%	The deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared by the National Weather Service to be a Category 2 hurricane or higher.	1% for Nassau 2% for Suffolk	The hurricane deductible is capped at $50,000.

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
TIG R97003949 R97003973 R97003948 6/10/98	5% mandatory deductible one mile in the coastal areas and 2% mandatory deductible further inland.	The deductible applies to losses which occur as a result of either: a) a Category 1 or higher hurricane making landfall in NYS, or b) a hurricane making landfall outside of NYS, but which is determined by the National Weather Service to be a Category 1 or higher hurricane force winds in the area within NYS in which the losses occur.	5 NYC boroughs, and Long Island.	Optional higher hurricane deductible available.
Travelers Companies R96004580 & R96004386 12/13/96	5% hurricane deductible applicable up to one mile from LI, South Shore & the shores of Brooklyn, Queens, SI, & Long Island Forks and up to 1000 feet from Long Island North Shore, the areas along the Bronx and Westchester County along the Long Island Sound. 3% hurricane for the remainder of Long Island and the 5 boroughs.	The deductible applies to losses which occur as a result of either: a) a Category 1 or higher hurricane making landfall in NYS, or b) a hurricane making landfall outside of NYS, but which is determined by the National Weather Service to be a Category 1 or higher hurricane force winds in the area within NYS in which the losses occur.	See Note A.	Insureds with the 3% mandatory hurricane deductible have the option to purchase a 4% or 5% hurricane deductible.
Tristate R97003769 5/15/98	2%	The deductible applies to losses which occur as a result of either: a) a Category 1 or higher hurricane making landfall in NYS, or b) a hurricane making landfall outside of NYS, but which is determined by the National Weather Service to be a Category 1 or higher hurricane force winds in the area within NYS in which the losses occur.	5 NYC boroughs, Westchester , and Long Island	

Company, File No., Approval Date	% Deductible based on Dwelling	Trigger (circumstances under which deductible is applicable)	Territory	Comments
Underwriters Rating Board	See Note A			A rate service organization
USF&G R97001265 10/15/97	2%	The hurricane deductible applies to windstorm loss that occurs within a period of 12 hours before or 12 hours after the storm which caused the loss makes landfall anywhere in NYS as declared by the National Weather Service to be a category 1,2,3,4 or 5 hurricane.	Staten Island, Queens, Bronx, Brooklyn, Nassau and Suffolk.	
Utica First R97000239 & R97000247 7/15/97	1%	The deductible is applicable when a windstorm loss occurs 12 hours before or 12 hours after a Category 2 hurricane, as determined by the National Weather Service, makes landfall anywhere in NYS.	Queens, Nassau & Suffolk Counties.	
Utica Mutual	OPTIONAL – SEE COMMENTS	Category 1 Hurricane.	NYC & LI	Optional (all wind) deductible for the entire state. Available % deductible option of 1%, 2%, or 5% of coverage A & fixed dollar amount of $1000, $2000, & $5000.
Worcester R97001510 6/5/97	2%	The deductible is applicable to a windstorm loss if, according to the National Weather Service, a Category 1, 2, 3, 4 or 5 hurricane makes landfall anywhere in New York State within 12 hours before or 12 hours after windstorm loss to covered property first occurs.	Bronx, Brooklyn, LI, Queens, and SI.	

Note A: See guidelines contained in Circular Letter No. 11 (1993), which was issued to all insurers writing homeowners' policies informing them of standards to be followed in making filings for windstorm deductibles.
Source: New York State Insurance Department

Appendix B

Tapping the Capital Markets, Securitizing Insurance Risk

Summaries of articles from the insurance and business press on the growth of capital markets as an alternative to traditional reinsurance for catastrophic risks

(Compiled by the Reinsurance Association of America)

January 1998

Business Insurance reported that purchasers of a watershed catastrophe bond deal, sold in June of 1997, will realize large returns. This is good news for the cat bond market and will have a positive effect for investors in1998. According to Richard L. Sandor, chairman of Hedge Financial Products Inc. in Chicago, "[t]he risk securitization market is in maturation." Signs of the maturation are: new cat bonds, more investment banks entering to underwrite the issues, and new players in insurance derivatives. Mr. Sandor noted that the market is "seeing a resounding growth in (the risk of securitization) market, and we are also seeing a set of investors that have done well." He expects this pattern to continue in 1998. *Business Insurance* January 5, 1998.

The Chicago Board of Trade (CBOT) expects to receive authorization to launch insurance option contracts which will cover individual catastrophes rather than aggregate insurance losses. **"**Traders will be able to buy and sell contracts covering earthquakes, atmospheric events, and all perils." These contracts will cover nine regions: national USA, northeast, east, southeast, midwest, west, California, Texas, and Florida. *Reinsurance Market Update Report 5,* January 7, 1998.

According to a *Business Week* article some $900 million worth of CAT bonds have been sold in the last 13 months. Analysts expect $2 billion to $5 billion in new catastrophe bonds to be issued in 1998. *Business Week*, January 26, 1998.

February 1998

"First Boston, Goldman Sachs & Co., Merrill Lynch & Co., Morgan Stanley Dean Witter, and Salomon Smith Barney have deployed teams of investment bankers and traders to develop the cat bond market." The teams are being assisted by statisticians, meteorologists and geologists who are responsible for assessing the risks attributed to earthquakes, hurricanes, and other natural disasters. According to Jon Barry, investment banker at Salomon Smith Barney, cat bonds are becoming a core source of profitability for many of the major investment banks. Mr. Barry predicts that within five years, issues of cat bonds will reach between $50 to $100 billion. *New York Business,* February 16, 1998.

March 1998

Over the past few years, the Chicago Board of Trade, the Catastrophe Risk Exchange and the Bermuda Commodities Exchange have developed new risk trading facilities. However, Steve Bolland, senior vice president of Gill & Roeser, stated that although the new facilities are "worthwhile and have a very valid position in the marketplace, at the moment there is little need for them." The new facilities were created at a time when the market was tight, but now prices are down. Thus, the best place to obtain reinsurance is through the traditional markets because rates are down, there is much flexibility and there is a better system of accounting. *National Underwriter*, March 9, 1998.

A proposed amendment to Bermuda's Insurance Act of 1978 may set the future standards for the securitization of insurance risk. According to Thomas C. Heise, president of the Pembroke, a Bermuda-based insurance risk market, "the Insurance Amendment of 1998 would allow for the formation of special-purpose vehicles designed to sell insurance-linked derivatives, such as catastrophe bonds." *National Underwriter*, March 9, 1998.

"Centre Solutions Ltd. has attained retrocessional capacity against Florida hurricanes through an $83.6 million securitization led by Goldman Sachs." This is the first deal of 1998 which bypasses the reinsurance market and turns to the wider capital markets to provide catastrophe protection. USAA is expected to make a $477 million deal later in the year. According to Richard Trimbrell, head of Centre Risk Advisors, "the cat bond will help Centre Solutions offer long-term stability to its customers in the event of a capacity crunch and price increase after a large loss." *National Underwriter*, March 16, 1998; *Business Insurance*, March 16, 1998.

The *Business Insurance* reports that many companies with large catastrophe exposures forego seeking coverage in the traditional markets because the companies are unable to obtain the limits they need. According to Morton N. Lane, president of Sedgwick Lane Financial L.L.C. in Chicago, the capital markets are becoming quite attractive and predicts that there will be a move into these markets within the next 12 months. *Business Insurance*, March 16, 1998.

According to a risk management consultant, "[p]roducer-driven risk financial vehicles covering the risks of small, 'Main Street' accounts, represent the largest potential source of growth for the alternative market." Policies under $25 million a year in premiums are an untapped source of business for the alternative market. Michael Murphy, president of Risk Cap, a Denver Colorado based risk management firm, noted that the alternative market is composed of "small markets and smaller middle-market commercial insureds with identical or similar risks who have been grouped together in large blocks of premium volume in order to create profit opportunities for the owners of the books of business.' *National Underwriter*, March 23, 1998.

April 1998

Reactions reported that “the death of the cat bond has been greatly exaggerated. Neither the traditionalists’ skepticism nor a persistently soft market have dampened issuers’ enthusiasm.” Also, it was reported that there are new initiatives by banks and insurers to form dedicated units to sell catastrophe insurance bonds. *Reactions*, April 1998.

According to Tal P. Piccione, chair and chief executive officer of US Re Companies, “traditional reinsurance is becoming in many respects a commodity market as competition is focused increasingly on price. Reinsurance professionals also are keenly aware that more than a third of all commercial property premium in the United States is flowing to the alternative insurance market.” *National Underwriter*, April 6, 1998.

Best Review reported that the insurance backed investment, known as risk securitization, may be booming in the foreseeable future. “A flurry of important transactions occurred in 1997, and investment bankers say to expect more in the coming quarter. Ten or more deals are expected this year.” The 1997 transactions each targeted different investor groups and showed new possibilities for securitized insurance risk. The participants in the 1997 deals stated that given the existence of a soft market for reinsurance, the selling of risks through bonds did not save them any money. However, for some insurers securitizing will build a track record that can be used for leverage if coverage becomes difficult to obtain. *Yahoo Finance Business Wire, April 10, 1998.*

Mitsui Marine & Fire Insurance Co. Ltd. has received $30 million in earthquake reinsurance coverage backed by an “event-linked swap transaction” arranged by Swiss Re Capital Markets. The swap transaction involves the exchange of premium flows from Swiss Re to institutional investors, unlike securitized transactions which generally involve capitalizing a special purpose vehicle or insurer through the issuance of securities. *National Underwriter*, April 20, 1998.

American International Group, Inc. (AIG) has announced that AIG Risk Finance, a division of AIG, will be offering a new risk financing program that will “help companies minimize the negative earnings per share impact of weather related events.” The program is entitled Snow, Temperature, and Rain Management (STORM). STORM is a program that combines adverse weather results with economic losses. “STORM programs are targeted to companies with seasonal earnings/revenues or fixed or seasonable expenditures subject to weather related events; companies with an attendance-driven revenue base affected by adverse weather; or companies with fixed seasonal budgets and expenditures.” *American International Group, Inc. Press Release*, April 27, 1998.

May 1998

According to Duff & Phelps Credit Rating Co. (DCR), the catastrophe market is due for an expansion in the next few years which should amount to multi billion annual issuances by the turn of the century. DCR has noted increased acceptance of cat bonds by both insurers and investors as evidenced by the $1.4 billion in cat bonds issues in recent years. *Yahoo Finance PR Newswire*, May 5, 1998.

The *National Underwriter* reported that 1997 was a tremendous year for the insurance securitization market due to the capital markets' acceptance of over $1 billion of insurance risk. "Several key cat bond transactions, including those by USAA, Swiss Re, Winterthur and Tokio Marine, have opened the door to future capital market activity, and new securitization deals are now in progress." *National Underwriter*, May 1998.

June 1998

Swiss Reinsurance Co., Zurich, Switzerland, has completed two major capital market transactions. The first involved a private placement on the European market of 1,010 million Swiss francs ($1 - 1.472) in a so-called hybrid capital deal. The second transaction was undertaken by Swiss Re Finance which "floated a 1.25% exchangeable bond issue of 925 Dutch guilders ($1 = 1.991), with a five year term. *Best Week,* June 1, 1998.

Goldman Sachs has set up a reinsurer, Arrow Re, located in Bermuda which will act as an interface between insurance and reinsurance clients and the capital markets. Goldman will place all the risks it possesses in the capital markets. "Arrow Re is designed to bridge the gap in demand which exists between capital markets' investors' growing appetite for insurance risk and the number of securitised transactions being done." The new company plans on conducting its business by using a reinsurance contract in order to maintain the same form and process as the traditional market, but it will also access the capital markets to offset these risks. *Reactions*, June 1998.

Reliance National purchased an option to cover itself against any potential increases in reinsurance rates in the event of a series of catastrophes. The option was issued by Sedgwick Lane Financial and is the first of its kind in the insurance industry. The option allows Reliance to buy reinsurance coverage, at a fixed price, if the rates go up as a result of several large losses. However, if the rates soften then Reliance can forego the option and buy coverage from the traditional market. The classes of risk covered by the option are: US property, property in the rest of the world, aviation, marine drilling rigs and satellite launch failure. *Reactions*, June 1998.

Chubb Insurance Co, of Europe, announced a new unit to service alternative risk programs for European clients. The company has formed an alliance with the accounting firm of Ernst & Young, whose consultants will provide integrated risk assessment and Chubb will set up a specialist reinsurance company to assist in providing alternate risk programs. *Business Insurance* June 15, 1998.

According to John Nichols, managing director of risk finance for AIG Europe (UK) Ltd., the capital markets will be used regularly in a complimentary role to the traditional markets, rather than replacing them. The capital markets will be used to hedge against catastrophe exposures and Mr. Nichols predicts that the use of these markets will grow in the future. He notes that capital markets will play a role in the market because potential losses from catastrophe risks in the United States and globally far exceeds the insurance industry coverage currently available. *Business Insurance,* June 15, 1998.

Lehman Brothers Holding Inc. has created a reinsurance subsidiary with $500 million in capital in the Bermudian market. The subsidiary, Lehman Re Ltd., will channel insurance and reinsurance risks to the capital markets through securitization or structured derivative products. Lehman Re will initially cover finite risk and other financial coverages; property catastrophe reinsurance; political risk and trade credit reinsurance; and life reinsurance. Most of Lehman's business will be handled through agents and will offer coverage in the traditional manner. According to Michael Gelband, the reinsurance unit's president, Lehman Re will be at the forefront of the convergence of the insurance and capital market. *Business Insurance*, June 22, 1998; *The National Underwriter*, June 22, 1998.

United Services Automobile Association has acquired $450 million in catastrophe reinsurance from Residential Reinsurance Ltd., Cayman Islands. The transaction was funded by hurricane-linked bonds with a life of 11 ½ months that will pay an annualized yield of 400 basis points. *Best Week*, June 22, 1998.

Yasuda Fire & Marine Insurance Co. Ltd., a Japanese domiciliary, secured $80 million in reinsurance for typhoon exposures from Pacific Re Ltd, a Cayman Islands domiciled special purpose vehicle. The notes were arranged and brought to the market by Aon Capital Markets Inc., a subsidiary of Aon Corporation. *Business Insurance*, June 29, 1998.

July 1998

American Re Corporation announced the formation of American Re Capital Markets Inc. which will work in conjunction with American Re-Insurance Co. This new entity will provide its customers with integrated solutions for mitigating risks in the financial markets and be a leading provider of alternative risk management solutions. Initially, American Re Capital Markets will focus on the weather derivatives market, protecting both buyers and sellers of weather-dependent products and services against significant fluctuations in weather conditions. *The Journal of Commerce*, July 27, 1998.

Enron Corp. is in the process of creating an "over-the-counter trading market in weather risk management." This would allow corporations and individual speculators to make calculated predictions on the weather. For example, a company whose business is dependent on a hot summer could hedge with a bet on a mild summer. *Swiss Re America: Marketing Notes*, July 1998.

August 1998

AXA and Paribas, a French Bank, have structured a catastrophe option to cover the Californian earthquake risks of an unidentified US insurer. According to Marc Romano, chairman of the AXA/Paribas joint venture, the amount of the option is estimated at around $50 million. *Reactions*, August 1998.

Zurich Group and Swiss Re have entered into an insurance transaction that will provide $800 million of environmental liability overage to Hanson plc, a London-based international building materials company. The transaction provides coverage on 200 sites in the United States of the former Koppers Co. operations of Beazer plc relating to environmental and roof product liabilities. This transaction will lower the cost of transferring the funding of environmental liabilities from $275 million to $155 million. *Best Week*, August 10, 1998.

Swiss Reinsurance Co. has created a basis swap with a New York reinsurance company for US windstorm damage. The transaction involves the use of capital market techniques, but not the capital markets themselves. According to Gail Belonsky, director of Swiss Re New Markets in New York, the swap offers the reinsurer a lower premium than a standard catastrophe reinsurance program. "In this deal Swiss Re looks to the New York reinsurer for payment if industry losses exceed their trigger, but in the future Swiss Re could also look to other reinsurers or to the capital markets." *Business Insurance*, August 31, 1998.

September 1998

The *Journal of Commerce* reports that the F&G Re's completed deal with Goldman Sachs and E.W. Blanch Capital Markets will benefit Mosaic Re, an offshore firm that provides reinsurance on F&G Re's products. The deal is a single tranche, popular - at - risk deal similar to USAA's June 15 deal. The cat bond will protect Ft and Re from U.S. earthquake and hurricane losses of $20-75 million. *Journal of Commerce*, September 4, 1998.

December 1998

CNA has issued $200 million of 6.6 percent notes due December 2008. Goldman Sachs is the lead manager, and Lehman Brothers the co-manager for the issue. The net proceeds will be used for general corporate purposes. (1998)

Appendix C

Appendix C is a report, "Hurricane Loss Analysis-Homeowners," prepared by Applied Insurance Research. The report, which runs from page 77 through page 92, is not available electronically. The report does appear in the hard-copy version which is available through the Department's Publications Unit (1-800-342-3736).

Appendix D

Recent Risk Securitization Activity

(Source: Goldman Sachs)

Completed Transactions	Risk Capital (in millions)	Type of Cedent	Type of Coverage	Underlying Risks
1998				
Trinity Re 1999 (Centre Solutions)	$ 54	Primary Insurer/ Reinsurer	Indemnity Reset	Florida Hurricane
Gemini Re (Allianz)	$150	Primary Insurer/ Reinsurer	Second Event	German Wind and Hail
Societe Generale Risk Transfer Swap	$ 25	Primary Insurer/Bank	Index	US Midwest Earthquake
K3 (Hannover Re)	50	Reinsurer	Indemnity	Global Property Catastrophe
Basis Risk Securitization	10	Reinsurer	Indemnity Basis	US Property
X.L. Mid Ocean Re Risk Transfer Swap	100	Reinsurer	Indemnity Hybrid	US Hurricane and Earthquake
Gramercy Place Insurance (TMCC)	566	Corporate	Indemnity	Auto Lease Residual
Mosaic Re (F&G)	45	Reinsurer	Indemnity	US Property
AXA Risk Transfer Option	30	Reinsurer	Option	California Earthquake
Pacific Re (Yasuda Fire & Marine)	80	Primary Insurer	Indemnity	Japanese Typhoon
Hannover Re	57	Reinsurer	Indemnity	Multicurrency Life
Residential Re II (USAA)	450	Primary Insurer	Indemnity	East and Gulf Coast Hurricane
SLF III (Reliance National)	25 est.	Primary Insurer	Indemnity Option	US Property, Other Property, Aviation, Marine Drilling Rigs, Satellite
FHLMC “MODERNs”	243	Mortgage Purchaser	Indemnity	Mortgage Default
Mutual Securitization p.l.c (NPI)	431(£260)	Primary Insurer	Indemnity	Life (Unit Linked Annuities)

Completed Transactions	Risk Capital (in millions)	Type of Cedent	Type of Coverage	Underlying Risks
Hedge Financial Risk Transfer Swap/Bond	90	Reinsurer	Index Swap/Bond	Northeast US Hurricane
Mitsui Risk Transfer Option	30	Primary Insurer	Parametric Option	Japanese Earthquake
Trinity Re(Centre Solutions)	72	Primary Insurer/ Reinsurer	Indemnity Reset	Florida Hurricane
1997				
SLF II (Reliance National)	10 est.	Primary Insurer	Indemnity	U.S. Property, Other Property, Marine, Aviation, Satellite
ASLAC Funding Trust II-IV	158	Primary Insurer	Indemnity	Life (Variable Annuity)
Parametric Re(Tokio Marine & Fire)	90	Primary Insurer	Parametric	Japanese Earthquake
SR Earthquake (Swiss Re)	112	Reinsurer	Index	California Earthquake
Residential Re I RiskTransfer Swap	35	Reinsurer	Index Swap	East and Gulf Coast Hurricane
Residential Re I(USAA)	400	Primary Insurer	Indemnity	East and Gulf Coast Hurricane
SLF I (Reliance National)	10 (est.)	Primary Insurer	Indemnity	US Property, Other Property, Marine, Aviation, Satellite
1996				
Winterthur	6	Primary Insurer	Index	Swiss Automobile Hail
AIG Combined Risk	10	Primary Insurer	Index	Global
K2 (Hannover Re)	100	Reinsurer	Indemnity	Global Property Catastrophe
George Town Re (St. Paul Re)	45	Reinsurer	Indemnity	US Property, European Property, Other Property, Lloyd's Retro, Marine and Aviation
ASLAC Funding Trust I	42	Primary Insurer	Indemnity	Life (Variable Annuity)
1994				
Kover (Hannover Re)	85	Reinsurer	Indemnity	Worldwide Property Catastrophe, excluding US, Japan