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Foreword 1

Foreword

The World Catastrophe Reinsurance Market is a study of property catastrophe reinsurance markets in 22 countries and four regions, representing over 90 percent of the worldwide market for catastrophe reinsurance.

Each chapter reviews catastrophe exposures and the availability of insurance from either private or government sources to cover losses from catastrophes. We also summarize respective market conditions in catastrophe reinsurance. This report takes into account natural catastrophes caused by such perils as typhoons and earthquakes, as well as the major new peril of the early 21st century, namely terror risk.

As we enter the 2006 renewal season, the outlook is for continued softening in the market, but caution is definitely in the air. As press time for this publication approaches, we are in the midst of a very active hurricane season. Hurricane Dennis broke records by becoming the strongest hurricane to ever form before August, only to be eclipsed by the even stronger Hurricane Emily nine days later. The National Oceanic and Atmospheric Administration has predicted that an additional 11 to 14 storms will form in the Atlantic before November, with at least five of these becoming major hurricanes. Such severe weather patterns, compounded by uncertainties on the terror front both in terms of events and government backstops, make it difficult to predict market conditions with a high degree of confidence.

Each year that we publish this report, we endeavor to deliver more insightful research. We hope this issue provides added value to those interested in the global reinsurance catastrophe marketplace. We welcome your comments and suggestions for future reports.

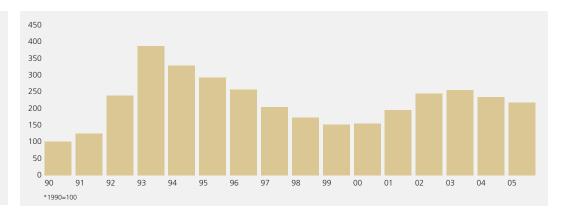
Sel Zaffrin

Salvatore D. Zaffino Chairman and Chief Executive Officer

Executive Summary

The Market Continues to Decline in 2005





The price of catastrophe reinsurance protection declined in most markets in 2005. The world rate on line index fell by 7.5 percent, a slightly slower rate of decline than the 8.7 percent decrease in 2004. In general, cedents experienced a more accommodating market, with the notable exception of programs that suffered significant losses in 2004.

- Reflecting abundant reinsurer capacity, the marketplace was highly competitive, leading to further softening in rates.
- Part of the observed decline in rate on line is somewhat artificial. In a number of countries
 there has been a vertical upward movement in programs, which has the arithmetic effect of
 lowering rates, since rates on line decline as cover moves up. However, Guy Carpenter's analysis of layers with the same amount of risk still shows a marked decline in pricing.
- The current market appears to be more disciplined than the soft market of the 1990s. This discipline reflects a number of factors:
 - 1. The unprecedented storm season of 2004, namely the four Florida hurricanes and 10 Japanese typhoons, served as a strong reminder to reinsurers of the unexpected risks they face as they accumulate exposures. This was reinforced by the Indian Ocean tsunami in December 2004 and, more recently, by the terror bombings in London and Egypt. While losses from these events did not threaten industry solvency, they did reinforce the tone of cautious underwriting and pricing that has characterized the market so far this decade.
 - 2. The marketplace is becoming more technical, as both cedents and markets increasingly use hazard modeling as the basis for determining pricing. This leads to a narrower range of price variability, compared with older pricing approaches.
 - Investment returns are relatively low, reflecting in part the surprisingly low level of longterm interest rates.
 - 4. Increased regulatory scrutiny is forcing more discipline in the marketplace.
 - 5. The market for retrocession support is disciplined.

Executive Summary

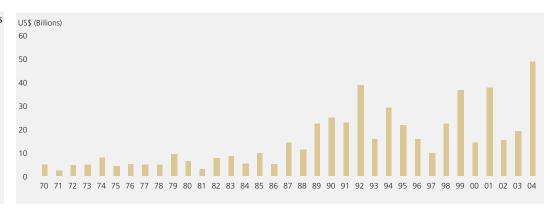
- 6. The new entrants to the market have made strong commitments to investors that they will not chase market share.
- Terror risk continued to be a major concern for U.S. cedents, particularly as they face the scheduled expiration of the federal government's backstop reinsurance program at the end of 2005.
- Outside the United States, terror risk was less of an issue, though this may change as a result of the terror incidents this summer.
- In a number of countries, higher event limits were imposed on pro rata programs as reinsurers address increased concerns about catastrophic exposures.
- In countries where primary market rates are producing high returns, some cedents retained more exposure net, cutting back on their reinsurance purchases.
- Assuming no major surprises on either the claims or financial fronts, renewals for 2006 are likely to experience a similar environment to this year, with the continuation of a soft but relatively disciplined market.

Overview

In the current reinsurance market, we are observing an example of the "law of price gravity": prices that go up must someday come down. The hard market conditions of 2001, 2002 and 2003 are now a memory, and soft market conditions prevail. This softening is occurring despite global insured losses of a record USD48.6 billion in 2004, as shown in the following chart.

Global Insured Catastrophe Losses (Constant 2004 \$)

Source: Swiss Re, sigma No. 1/2005



Record losses in 2001 (as a result of the terrorist attacks on September 11, 2001) and 1992 (due to Hurricanes Andrew and Iniki) triggered hard markets for property reinsurance. So why a continued softening after the record losses in 2004?

The main reason appears to be that a number of offsetting mechanisms reduced losses to private market reinsurers in 2004. The four Florida storms caused a total loss of USD23 billion, but no individual storm had losses that penetrated through the retention levels of most insurers. Had there been a single storm with a total loss comparable to the combined four separate events, the reinsurance impact would have been much greater. In addition, the Florida Hurricane Catastrophe Fund, a government-backed pool, absorbed a significant amount of the losses. Furthermore, Florida's largest insurer, the state-organized Citizens Property Insurance Corporation, had no reinsurance protection.

In the case of the Japanese typhoons, losses to insurers were partially offset by payments from catastrophe reserves, which are permitted in that country. In addition, as in the United States, losses from many of the storms did not penetrate to the covered layers of cedent programs.

The Retrocessional (Retro) Market

Demand for the retrocessional product remains robust, and the high margins have drawn one or two new players to the table for 2005. The slight reduction in prices evident at 2004 renewals disappeared after the 2004 hurricane season. For higher layers with multiple exposure peaks, terms have even hardened throughout 2005. Overall capacity for worldwide retro has remained stable. The supply-side nature of the market has also ensured that underwriting discipline remains strong. Common attachment points remain stable, and there has been a move to distinguish between insurance and reinsurance exposures.

All clients will likely be impacted by the regulatory and rating agency requirements on capital levels, and this may further stimulate demand. As a result, we see no significant softening in the retro market in the coming year.

Demand for parametric covers remains strong, and we anticipate this growing alongside the demand for traditional cover

The market has yet to come to an agreed position regarding the possible sunset of the U.S. Terrorism Risk Insurance Act of 2002 (TRIA), and questions remain on the type and extent of cover that might be provided in the retro market.

The Catastrophe Bond Market

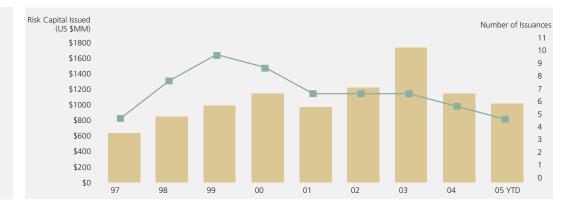
The catastrophe bond market continued its steady growth in 2004 and 2005. Outstanding risk capital totaled USD4.65 billion as of June 30, 2005, up from USD4.04 billion outstanding at year-end 2004 and USD3.45 billion at year-end 2003. Total issuance declined from the record high of USD1.73 billion in 2003 to USD1.14 billion in 2004, which was roughly on a par with 2002 levels. As of June 30, 2005, however, the market has already seen issuances totaling USD1.01 billion, approximately 88 percent of the 2004 total. Since 1997, 64 catastrophe bonds have been issued with total risk limits of USD9.68 billion.

The last quarter of 2004 and the first half of 2005 were notable for the number of first-time issues by large insurance companies. The Hartford, FM Global and Oil Casualty Insurance, Ltd. (a captive insurer of the petrochemical industry) all sponsored catastrophe bonds for the first time. The OCIL transaction was particularly noteworthy, as it securitized third-party liability risks for the first time.

The investor base for catastrophe bonds continues to increase at a steady pace. Demand is at an all-time high, with newly dedicated catastrophe bond funds continuing to form. We estimate that dedicated catastrophe bond funds now have capital under management exceeding USD3 billion. Despite the unusually active wind season and record worldwide catastrophic losses in 2004, there were no reports of any outstanding catastrophe bonds being triggered.

Annual Catastrophe Bond Transaction Volume

Risk Capital
Number



North America

United States

Catastrophe Exposure

The United States is exposed to the major hazards of earthquake, windstorm, hurricane, tornado, wildfire, hail and flood. The Hawaiian Islands and both mainland coasts also face the risk of tidal waves (tsunami). Over the past decade, terrorism has caused enormous losses, most notably in the Oklahoma City bombing of 1995 and the attacks on the World Trade Center in 1993 and on September 11, 2001. The losses from the terrorist attacks of September 11, 2001, surpassed all insured catastrophic losses from the previous decade combined.

Insurance Availability

Most property policies, both residential and commercial, are written on an all-risk basis. This means they cover the perils of wind, including tornado and hurricane, as well as fire and explosion. Flood and earthquake perils are normally excluded. In most states, earthquake cover is available as an endorsement or separate cover. A special program underwritten by the federal government covers the flood peril up to USD250,000 in insured value for residential exposures and USD500,000 for nonresidential exposures.

Over the years, there have been a number of problems with the availability of property insurance. As far back as 1963, there was a pullback of insurance in the Los Angeles canyons following a major brushfire in Bel Air. Availability crises of this kind have led to a wide variety of state programs designed to improve availability in hazard-prone regions.

Prior to September 11, 2001, terrorism was not excluded from the all-risk form. In 2001 and 2002, insurers filed forms in all states to exclude the terror peril from most major insurance policies. The majority of states approved these filings. Notable exceptions were the major states of California, New York and Florida.

In November 2002, the U.S. federal government set up a special program to cover the terror peril, with the passage of TRIA (the "Act") in 2002.

TRIA expires at the end of 2005. At the time of this writing, no legislation has been introduced to renew TRIA.

Catastrophe Programs in the United States

In the United States, a number of programs are in place to address the issue of "uninsurable risks." Uninsurable risks are risks that cannot get coverage from the "voluntary market" of private insurance companies. For property risks, 31 states have FAIR (Fair Access to Insurance Requirements) plans. These plans are mainly used to provide property insurance in inner cities. However, in a number of states, they are used to cover other "hard to insure" exposures. In California, for example, the FAIR plan covers homes in certain areas exposed to brushfires; in New York, the plan covers beachfront homes on Long Island.

Six southern states have windstorm plans, which provide coverage for the wind peril alone. Until 2002, Florida operated a windstorm plan known as the Florida Windstorm Underwriting Association (FWUA). In July 2002, the FWUA became part of Citizens Property Insurance Corporation, as discussed on page 10.

All of these plans, including both the FAIR and windstorm plans, operate by spreading risk among insurance companies doing business in the state. The state government does not provide financial support for these plans. In addition, each state has a guaranty fund in place to pay the claims of insolvent insurers. The guaranty fund is also supported by insurance companies with no assurance of financial participation on the part of the state government.

Key Features of TRIA

- TRIA pre-empts and nullifies pre-existing terrorism exclusions, except exclusions for property outside the United States and also for acts of domestic terrorism.
- The Act is triggered when the Secretary of the Treasury, in concurrence with the Secretary of State and the Attorney General, certifies that an event meets the definition of an act of terrorism. To be certified as an act of terrorism, an event must be committed on behalf of a foreign person or interest, and the event must cause losses of at least USD5 million.
- The Act requires mandatory participation in the program and provision of terrorism coverage by all insurers providing commercial property and casualty insurance. This proviso applied for 2003 and 2004 and needed to be renewed by the Secretary of the Treasury for 2005. The secretary announced the extension of the "make available" proviso on June 18, 2004, well in advance of the deadline, in order to avoid any market disruption.
- The Act was intended as a short-term backstop only. It terminates on December 31, 2005, although the potential exists that at least part of the coverage will be extended beyond that deadline.
- Each participating insurance company is responsible for paying out a certain amount in claims a deductible before federal assistance becomes available. This deductible is based on a percentage of direct premiums from the previous calendar year. It rose from 7 percent in 2003 to 10 percent in 2004 and again to 15 percent in 2005.
- For losses above a company's deductible, the federal government will cover 90 percent, while the company contributes 10 percent.
- Losses covered by the program will be capped at USD100 billion. Above this amount, Congress is to determine the procedures for and the sources of any payments.
- Insurance companies providing commercial property and casualty insurance are required to participate in the program. Companies must offer terrorism insurance to all policyholders.
- State insurance law is preserved. Until December 31, 2003, states were required to allow
 rate and form changes to take effect immediately, but they otherwise retain full authority to disapprove any forms that violate state laws or any rates deemed excessive, inadequate or unfairly discriminatory.

Market Assistance Plans

Three states (New York, New Jersey and Texas) have established Market Assistance Plans (MAPs) to provide coverage for shore properties. MAPs are voluntary mechanisms set up by the insurance industry in cooperation with state insurance regulators to provide coverage when there is a "temporary" market failure. In a MAP, companies agree to take on risks that are declined coverage in the voluntary market.

Special Mega-Catastrophe Programs

Only two states, California and Florida, have in place special programs to deal with megacatastrophes.

California

A privately financed, publicly managed entity, the California Earthquake Authority (CEA) is the world's largest provider of residential earthquake insurance. It has a current funding capacity of over USD6.8 billion and an A.M. Best rating of A-.

The CEA was first established by the California legislature in 1995 following the 1994 Northridge earthquake, which cost USD12.5 billion in insured losses, resulting in a widespread insurance availability crisis. Designed to preserve the state-mandated offer of earthquake coverage, the plan required the participation of 70 percent of California's homeowners insurers before it could begin operation.

Insurers choosing not to participate are required to offer their own earthquake coverage to residential policyholders. The plan commenced operation in late 1996, allowing the policyholders of all participating insurers to purchase earthquake coverage directly from the CEA. Today the program insures roughly 724,000 policyholders, generating approximately USD393 million of written premium annually.

According to its legal mandate, the CEA is neither a state agency nor part of the California Department of Insurance. It is a public instrumentality of the state of California operating pursuant to the California Insurance Code. It is subject to regulation by the state insurance commissioner and is directly accountable to its own governing board, which consists of California's governor, treasurer and insurance commissioner, with nonvoting seats held by the president pro tem of the California senate and the speaker of the state assembly. The current governing board includes Governor Arnold Schwarzenegger, Treasurer Phil Angelides and Insurance Commissioner John Garamendi.

The CEA offers a scaled-down policy covering homes and certain apartment buildings, but not other structures such as swimming pools and garages. Contents coverage is limited to USD5,000; additional living expenses are capped at USD1,500. The standard deductible on the home and its contents is 15 percent of insured value and is applied to the total loss, not separately for each coverage. The CEA also offers supplemental coverages that decrease the deductible to 10 percent and increase contents coverage to as much as USD100,000. Factors used to determine premiums include the location of the dwelling, the year it was built and the type of construction.

The CEA sells its policies through its participating insurers, offering coverage to homeowners, mobile home owners, condominium owners and renters throughout California. It also provides retrofit assistance to help people protect their houses against earthquakes.

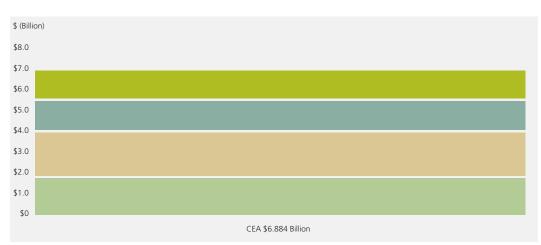
The CEA funding plan currently totals approximately USD6.884 billion. The fund is structured in layers, as illustrated in the accompanying chart. The funds come primarily from premiums, contributions from and assessments on member insurance companies, borrowed funds, reinsurance and the return on invested funds. No public funds are pledged or available to cover CEA-insured losses. If an earthquake causes insured damage greater than the CEA's claims-paying capacity – a possibility scientists claim is unlikely – then policyholders will be paid on a prorated basis. The prorated claims would be calculated based on the total amount of expected claims compared to the remaining available funds.

The CEA's initial layer of claims-paying capacity now totals USD1.745 billion, which includes the initial capital contributed by member companies in 1996, along with retained earnings. The original contributions amounted to approximately USD700 million, calculated according to each member company's percentage share of the residential earthquake market as of January 1, 1994, times USD1 billion.

Following this initial capital layer is the First Industry Assessment Layer of USD2.183 billion. After this assessment layer come the reinsurance layers, with a combined limit of USD1.5 billion. The combined limit of USD1.5 billion is split between USD1.15 billion of traditional reinsurance and two "transformer" layers totaling USD350 million. The limit is on an aggregate basis. A transformer reinsurance transaction involves the sale of a traditional reinsurance contract to a ceding company, such as the CEA, and includes the cession of the assumed risk into the capital market. Known as the Multiple Layer Catastrophe Reinsurance Contract (MLCRC), this traditional reinsurance layer has been subdivided into three separate layers for 2005. The first is a "collateralized" layer of USD300 million. The second and third are traditional reinsurance layers of USD550 million and USD300 million.

Finally, the Second Industry Assessment Layer of USD1.456 billion responds if the previous layers are inadequate to cover claims or if the CEA's available capital falls below USD350 million.





Florida

Florida has a number of programs in place to alleviate the availability problems that developed in the state following Hurricane Andrew in 1992. These mechanisms were severely tested in 2004, when The Office of Insurance Regulation reported 1.6 million claims that encompassed all 67 counties in the state, with an estimated USD20.5 billion in losses for the four major storms that struck Florida during the 2004 season.

The state-sponsored Florida Residential Property and Casualty Joint Underwriting Association (FRPCJUA), the residential insurance pool established after Hurricane Andrew to provide insurance to Florida residents having difficulty obtaining coverage, grew to almost 1 million policies after Andrew. This entity became the "relief valve" for business as carriers nonrenewed policies (within the guidelines of the state-imposed moratorium on cancellation) and established more appropriate PMLs. It also provided the opportunity for new capital to "jump start" an insurance operation by assuming some of the available volume under the FRPCJUA's Depopulation (or Policy Take-Out) Program.

In 2002, the Florida legislature passed a law that combined the FRPCJUA and the Florida Windstorm Underwriting Association, which offered policies covering "wind-only" along the coast. This resulted in the creation of Citizens Property Insurance Corporation (Citizens), a tax-exempt entity that provides insurance to homeowners, commercial residential properties, commercial businesses in coastal high-risk areas and others who cannot find coverage in the open, private insurance market. The combined entity has again seen substantial growth after the 2004 hurricane season.

The drivers for that growth include not only the enormous increase in population and property values along the state's coastline, but also companies' avoidance of certain areas of the state heavily impacted by sinkhole or subsidence claims. With the four storms of 2004, many carriers delayed renewing or writing new policies until evaluations of losses were complete. Some thinly capitalized companies required additional capital to continue to write, and some larger carriers required cash infusions to replenish capital. Most companies are expected to request additional rate, especially in the central part of the state, in order to assure reasonable returns. These factors are contributing to the increased volume in Citizens, which had more than 700,000 policies at the end of May 2005.

Citizens operates like an insurance company in terms of issuing policies and paying claims. If Citizens has a deficit, it is covered by assessments against insurers based on their market share in the state. The assessments are ultimately passed on to policyholders, thereby distributing the cost to all policyholders in the state. A deficit is expected to be officially declared in August 2005 based on December 2004 financial results. The assessment will be calculated based on insurance companies' market share as well as surplus lines participants.

Citizens was severely criticized throughout the storm season, as it was not organized to handle claims in all 67 counties of Florida and its network of outsourced manpower support was simply overwhelmed. This has resulted in some changes to the management and oversight of the entity by the 2005 legislature.

While Citizens has increased in size over the past year as a result of continued growth in the homeowners business from new construction and from companies adjusting and reconfiguring their portfolios, it has also been positively impacted by newly capitalized takeout companies removing policies. Citizens is currently required by statute to reduce its exposure by 2007.

The Florida Hurricane Catastrophe Fund (FHCF) is a state-run catastrophe reinsurance program designed to support insurers writing in the Florida marketplace. It was created following Hurricane Andrew to alleviate concerns about the availability of property reinsurance. Admitted insurers who write residential and commercial residential business in the state (currently about 237 companies) are required to purchase reinsurance protection from the FHCF based on their exposure to hurricane losses. The FHCF played an important role in the 2004 season in terms of stabilizing the private market, although overall recoveries were not as great due to the size of

the storms in relation to the attachment point of the FHCF coverage. The fund will pay out an estimated USD3.75 billion in losses, leaving a cash balance of USD2.92 billion. Of the approximately 237 insurers covered by the fund, 136 are expected to trigger FHCF coverage, and as many as 62 are projected to exhaust their FHCF limit.

The FHCF is deemed to fill an essential need of the state. It is operated under a state agency and therefore is exempt from federal income taxes, which enables it to accumulate funds faster than a private sector reinsurer. The FHCF can also borrow through tax-free bonds to pay losses. This borrowing capacity reflects the long-term nature of the fund. In effect, the FHCF has the power to "tax" primary insurance companies and surplus lines insureds through an assessment mechanism to service debt. Insurance carriers are allowed to pass this charge on to policyholders.

This year, the Florida legislature passed Senate Bill 1486, which addresses the aggregation of losses in multiple storms. The total capacity of the FHCF remained unchanged at USD15 billion. The subsequent-season provision, which is also USD15 billion, ensures that capacity will be available on a continuing basis to avoid disruption in the market when companies go to renew their reinsurance programs after a year following a major event.

Importantly, the 2005 legislation maintains the FHCF industry retention at USD4.5 billion for the two largest events but lowers it to one-third of the original retention for all subsequent events.

The FHCF's authority to levy emergency assessments to service any bond issue is capped at 4 percent in a single season and 6 percent to support events occurring in multiple seasons or multiple losses in a single season. The assessment authority allows a total aggregate assessment of 10 percent.

2005 Reinsurance Market Position

Despite the record hurricane activity in 2004, the 2005 renewal season experienced a continued softening of the reinsurance market. There were several factors that contributed to this continuing decline:

- The Florida losses were, for the most part, retained within ceding company retentions. As a result, despite the four storms and USD23 billion of estimated total industry loss, the season had a minimal impact on reinsurers and subsequent reinsurance pricing.
- The continued utilization of catastrophe modeling results as the basis for pricing has had a stabilizing impact on price. Where the historical market reaction in the wake of large loss activity would have been to make a universal adjustment, today's lead reinsurers are exposure underwriters. This means that without a compelling reason to support the fact that the world is riskier, the presence of loss activity does not change their assessment of the risks. Cedents welcomed this discipline shown by the market in light of the 2004 storms. Through their actions, reinsurers were able to reinforce their core message that they price and underwrite each deal on its own merits and will not be overly swayed by the market or industry events.
- There continues to be excess capacity through almost every segment of the property market. As a result, the laws of supply and demand dictate that prices will continue to erode as new reinsurers look to increase their foothold in the business and the existing players strive to at least maintain their year-over-year signings.

Outside of the modest price declines, from a property catastrophe perspective, the marketplace was stable in 2005. Across Guy Carpenter's property catastrophe placements, program limits and retentions were largely unchanged as exposures grew only modestly. Terms and conditions were mostly stable as well.

In terms of terrorism coverage, clients continued to make some progress in expanding their coverage in 2005, placing some certified terrorism exposures back into the main catastrophe programs.

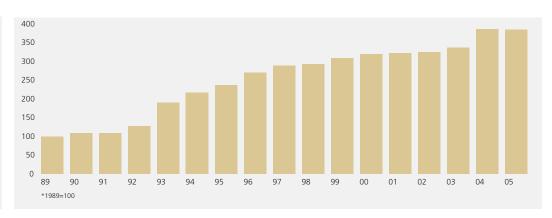
The expansion of the hours duration for storm losses from 72 to 96 hours within the occurrence limits also gained market acceptance. In 2004 and 2005, Guy Carpenter played a prominent role in an industry effort to expand this important coverage for our clients. The marketplace now has accepted the expanded hours coverage as the new standard.

Retention and Limit

The following charts illustrate the movement in total program retention and limit over the past 16 years, with 1989 as the base year set to 100. Guy Carpenter has prepared these charts based on a select index of companies tracked consistently over a 16-year period.

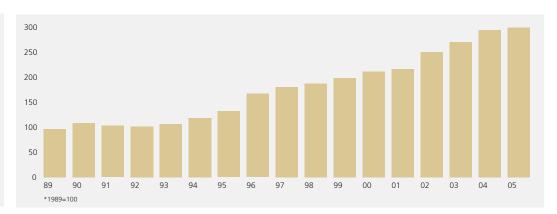
As the chart below shows, retentions have not changed from 2004 to 2005. Programs on average are attaching at around the 15-year return period level. Absent any drastic movements in price to warrant retention increases or decreases, it appears that most cedents are comfortable attaching their per occurrence contracts at current levels.

United States - Average Retention Per Program Index*



As shown in the next chart, average limit has increased by 17 percent in 2005 over 2004.

United States - Average Limit Per Program Index*

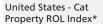


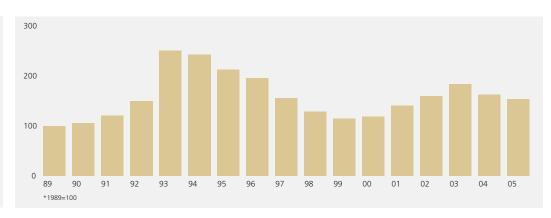
The increase in limit is a result of a number of factors:

- · Cedents' use of the savings from a softening market to fund additional top-end limit.
- The continuation of a longer-term strategy to increase property catastrophe ground-up limit.
- Continued pressure from A.M. Best on the adequacy of catastrophe protection and the direct impact that its perception has on A.M. Best's BCAR score.
- Heightened awareness of catastrophic loss potential as a result of the 2004 hurricane season.
- Growth in population and property values across the United States, particularly in catastrophe-prone areas.

Pricing

Overall, rate on line continued to trend downward from 2003 levels. This year saw a continued 6 percent reduction on top of the 11 percent reduction experienced last year. It is important to highlight, however, that the ROL decrease resulted from the combination of a declining market and the additional limits purchased.

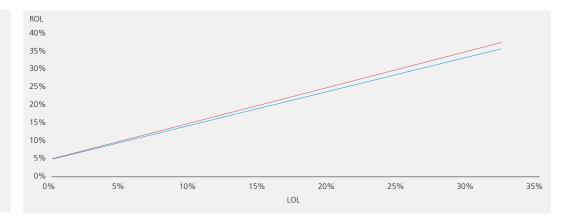




The next chart depicts a more refined sense of market movements. This comparison reflects the changing price apart from the effects of changes in limit and retention or movements in exposure. It illustrates the ROL being charged for the same amount of expected loss within the layer.

United States - ROL vs. LOL

2004 2005



As shown, exposure-adjusted pricing decreased for 2005 compared to 2004. According to the underlying data used in the chart, the market softened just over 5 percent throughout program structures. The market was willing to give more rate relief at the bottom end of programs. At the top end, where minimum pricing governs, reinsurers were unwilling to reduce their minimum capacity charge requirements.

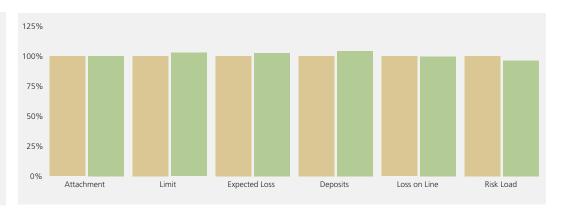
National versus Regional Companies

It is worthwhile to break out some key differences in the numbers, specifically for national carriers and carriers in different regions. This section provides key renewal statistics for national companies as well as a composite of regional companies. As with the previous charts, all data have been extracted from the sample of more than 200 layers of catastrophe data within Guy Carpenter's catastrophe analysis database.

National Companies

The chart below summarizes data for the national companies. The metrics captured in the chart show very little movement from 2004 to 2005. One noteworthy point is that the increase in deposits is the result of the additional limits purchased and not a true reinsurance price movement. The "risk load" comparison more accurately measures the market softening. Risk load is defined as the percent of standard deviation within a reinsurance layer that is added to the expected loss to generate the ultimate reinsurance price. Average risk loads decreased by 3.4 percent for the national companies.



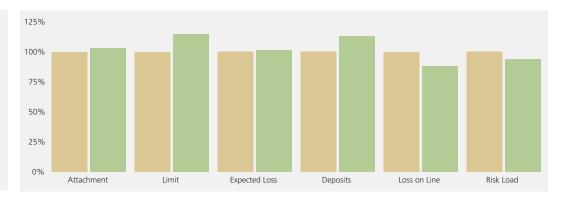


Regional Companies

The following chart summarizes data for regional companies renewing through May 2005. As with the national accounts, the metrics show very little movement. The sole exception is the 15.1 percent increase in total limit. That increase explains in part the sizeable 11.5 percent decline in year-over-year loss on line.

United States - Regional Companies

2004 Regional, Indexed to 100 2005

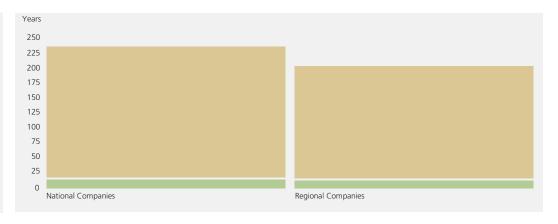


The regional accounts show more substantial rate reductions than their national counterparts. This is largely a result of their smaller limit requirements and of the noncorrelation that regional portfolios bring to reinsurers. This trend is likely to continue as reinsurers continue to seek diversity in their portfolios and find efficiency in allocating capital to identified regions.

The final chart provides a slightly different perspective on the program structures for the same national and regional peer groups. This chart compares the average attachment and exhaustion points for both groups on a return-period basis. As shown, the national companies attach, on average, at 15 years and exhaust at 220 years. The regional carriers attach, on average, at the same 15 years and exhaust at the slightly lower 200-year level.

United States - Return Period of Attachment and Exhaustion

ExhaustionAttachment



Contributor(s): Andrew Bossom, Judith Durdan, Timothy Gardner, Adam Goldberg, Paul Little, Kathryn Lynch, Luis San Miguel, Kelly Yorio

Canada

Catastrophe Exposure

Canada is the world's second largest country in terms of landmass, and its largest city, Toronto, is the seventh largest city in North America. The country is exposed to a number of climatic hazards, including windstorm, tornado, flood, hail and freezing, as well as the geological hazards of earthquake and related fire.

Approximately 90 percent of Canadians reside within 100 miles of the United States border. While there are significant climatic and geological hazards north of this area, they cause relatively little financial loss, given the limited population densities. However, the concentration of exposures in and around major Canadian cities such as Toronto, Montreal, Vancouver, Ottawa-Hull, Edmonton, Calgary, Winnipeg and Quebec City create the potential for major losses.

Damaging coastal winds, inland windstorms and tornadoes occur in Canada, although wind speeds north of the 49th parallel do not generally reach the velocities often seen in the United States. Tropical cyclones or hurricanes, for example, normally diminish in intensity to the level of storms before reaching the Canadian border.

Historically, damage from hurricanes has been rare. In 1954, however, Hurricane Hazel caused severe damage in southern Ontario, primarily as a result of flooding. If Hurricane Hazel occurred today, the potential damage could exceed anything ever experienced in Canada. In September 2003, Hurricane Juan, aided by rare conditions, reached the Canadian Maritime Provinces as a Category 2 storm, causing insured losses estimated at over CAD100 million.

Hail damage occurs regularly, particularly in the Prairie Provinces of Alberta, Manitoba and Saskatchewan. Flood and sewer backup damage can also occur, especially in spring, due to melting winter snow and Canada's abundance of lakes and rivers. In the past, flooding has caused the greatest aggregate amount of property damage in Canada, but private insurance companies generally do not cover flood losses to residential properties. Commercial risks are often insured against flood damage under all-risk policies.

Earthquake damage in Canada has been minor in modern times. However, seismologists at the Geological Survey of Canada have found evidence of seismic activity in the past on a scale, if not a frequency, comparable to other earthquake-prone areas of the world. Southwestern British Columbia on the west coast and the St. Lawrence and Ottawa River valley areas in the eastern provinces of Quebec and Ontario are believed to be especially vulnerable.

The three largest recorded catastrophe losses in Canada are shown in the table below.

LARGEST RECORDED CANADIAN CATASTROPHE LOSSES

*Adjusted for inflation (2005 CAD).

DATE	CAUSE	PROVINCE/REGION	ECONOMIC DAMAGE*	INSURED LOSS*
January 1998	Ice Storm	Ontario/Quebec/Atlantic	CAD3.2 billion	CAD1.9 billion
July 1996	Flood	Quebec/Saguenay	CAD1.1 billion	CAD0.2 billion
September 1991	Hail	Alberta	CAD0.4 billion	CAD0.4 billion

The ice storm of 1998, which affected both Canada and the northeastern United States, was, at the time it occurred, one of the 30 largest worldwide losses ever recorded by the insurance industry. Still the largest Canadian loss on record, the storm left millions of people without power in the middle of winter and caused extensive property damage. While the average insurance claim was small, the total number of claims submitted to Canadian insurers was nearly 800,000 – more than the combined claims generated by Hurricane Andrew.

Canada: Insurance Availability 17

Yet claims from these three events pale in comparison to the claims and losses that could arise from a major earthquake and related fires in British Columbia or Quebec and eastern Ontario. The potential economic damage from a major seismic event in British Columbia is estimated at CAD30 billion, and insured losses could reach as high as CAD15 billion, not all of which would be reinsured. The insurance loss estimate for a major earthquake in Quebec and eastern Ontario is CAD5 billion.

In 2004, Canada experienced two separate events that were typical of the most common catastrophic event in terms of peril and quantum. Both losses were caused by flooding and occurred in July, though on opposite sides of the country. In Edmonton, Alberta, July flooding caused an estimated CAD170 million in damage, while in Peterborough, Ontario, flood losses are currently estimated at CAD90 million. A third event – the remnants of Hurricane Frances – caused approximately CAD6 million in damage to Canada's east coast region.

Insurance Availability

Canadian insurance coverage for climatic and seismic hazards is readily available and affordable. In all provinces except Quebec, the basic fire policy covers fire loss from most causes, including earthquake and terror. In Quebec, about 55 percent of commercial businesses buy earthquake cover, but fewer than 10 percent of homeowners policies are endorsed for earthquake ground-shaking. In British Columbia, where earthquake risk is relatively high, insurers have sought to exclude fire-following for an earthquake from the property policy and to offer a separate ground-shaking and fire-following policy. These efforts so far have not been successful.

2005 Reinsurance Market Position

The Insurance Bureau of Canada (IBC) recently announced that the property/casualty insurance industry returned to financial health in 2004, reporting shareholders' return on equity of 20.6 percent. In terms of combined ratio, this equates to 90.7 percent as compared with 98.4 percent in 2003. These strong results have gone a long way toward easing concerns about industry solvency on the part of federal regulators at the Office of the Superintendent of Financial Institutions (OSFI).

Due in part to the healthy profit momentum of the past two years, 2005 may continue yielding a positive return. This outcome is expected despite the fact that the market has already seen a steady increase in price competition, particularly for commercial property. Current estimates indicate that prices for the 2005 Canadian catastrophe treaties decreased by 6 percent to 8 percent on average from the previous year. Prices are forecasted to continue this downward trend.

New Issues and Updates in 2005

The long debate on the subject of fire following either an earthquake or a nuclear event continues to move forward at a slow pace. Since a Supreme Court ruling in 2003 opened the possibility that fire following a catastrophic event could be excluded under multiperil policies, the legislative enthusiasm for a law that would allow the exclusion has remained subdued.

Another recent event of particular interest to catastrophe modelers was the IBC's introduction of revised CRESTA zones, which should enable primary companies to rate risks more uniformly within their portfolios. The new zones are based on areas with common geophysical characteristics and are not necessarily contiguous. The previous CRESTA zones will continue to be necessary both for historical comparison and for use within the OSFI default model. On the issue of geo-coding earthquake exposures, most insurers are able to provide data on at least a three-digit postal code basis, and some are seeking to further refine their data to allow geo-coding of each policy location.

This year, the Reinsurance Research Council has undertaken to draft an amendment to the "Loss Occurrence Definition" standard clause as it currently appears in the majority of Canadian catastrophe contracts. The purpose of the proposed changes is to clarify certain definitions and update coverage for forest fire, bushfire and water escape.

Insurance cover for terrorism remains a low priority from the perspective of both the government and the public. This year it has been estimated that coverage for terrorism exposure purchased by larger Canadian businesses dropped from about one-half to approximately one-third of the potential market. Common reasons given for this reduction are the perceived lack of threat and the high cost of cover.

Contributor(s): Claude Lefebvre, George Socha

Japan: Catastrophe Exposure

Asia Pacific

Japan

Catastrophe Exposure

The major catastrophe exposures in Japan are earthquake and typhoon. In the 1990s, Japan suffered its worst run of natural catastrophes in recent history, including the Kobe earthquake (1995) and Typhoons Mireille (1991) and Bart (1999), which remain the nation's costliest and second costliest typhoons. In 2004, Japan was hit by a record 10 typhoons, with insured losses totaling USD6 billion. The storm with the largest insured loss was Typhoon Songda, which hit the country in early September 2004 and caused insured damage worth USD3.6 billion. In 2004, the country was also hit by a significant earthquake in Niigata, with an insured loss of USD600 million.

Japan is also exposed to other significant perils, many of which are linked to earthquake and typhoon, including flood, volcanic eruption, tsunami and winter storm.

Insurance Availability

In general, property policies provide coverage for windstorm but not earthquake shock or fire following an earthquake. However, with the exception of warehouse policies, all property policies automatically include Earthquake Fire Expense Insurance (EFEI), which provides for a small expense for damage caused by fire following an earthquake.

Earthquake Risk

Residential policyholders can purchase earthquake shock and fire-following insurance from local insurance companies. Coverage is added by way of endorsement, and an additional premium is payable. Following the provisions of the Japanese earthquake program established in 1966, insurance companies cede 100 percent of their dwelling earthquake exposures to the Japanese Earthquake Reinsurance Company (JER). The JER then retrocedes some of the risk back to the original direct insurers and Toa Re, Japan's leading domestic reinsurer.

Traditionally, the market penetration for residential earthquake coverage has been very low. In 1992, for example, just 7 percent of policyholders purchased earthquake coverage. Since that low, however, the take-up rate has been steadily rising and now stands at 17.2 percent, its highest level since 1969.

Coverage is also available under commercial policies for earthquake shock and fire-following. Historically, the earthquake endorsement gave limited coverage for industrial and commercial risks, mainly on a reduced indemnity basis. However, there has been a recent trend toward the issuance of first-loss (no penalty for underinsurance) or layered coverage on both single- and multiple-location policies. It is now estimated that three-quarters of all commercial and industrial earthquake cover is provided on a first-loss basis.

Japan is divided into 12 earthquake zones. Traditionally, exposures are highly concentrated in the following two zones:

Zone 5: Chiba, Tokyo and Kanagawa prefectures

Zone 6: Shizuoka, Yamanashi, Nagano, Aichi, Mie and Gifu prefectures

EFEI

Details of the limits provided per policy type under the Earthquake Fire Expense Insurance (EFEI) are as follows:

Dwelling Risks: 5 percent of total sum insured (maximum JPY3 million)
Commercial Risks: 5 percent of total sum insured (maximum JPY3 million)
Industrial Risks: 5 percent of total sum insured (maximum JPY20 million)

Insurance companies buy reinsurance protection for their EFEI exposures in the commercial reinsurance market, usually on an excess of loss basis.

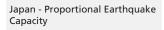
2005 Reinsurance Market Position

The Japanese market shares a common renewal date of April 1. For reinsurance managers and their brokers, the 2005 renewal was a question of judgment. While abundant capacity suggested that there would be softness in the market, this was offset by adverse loss experience.

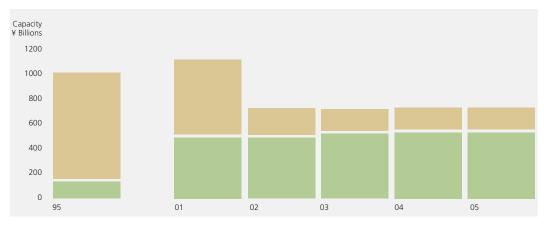
The year's losses and the new windstorm capacity purchased as a result gave many reinsurers cause to quote high excess of loss prices and talk of significant pro rata improvements. Insurers and their brokers had to work closely together to ensure favorable outcomes. The result was a long and difficult renewal in which success demanded good judgment and strong nerves.

Earthquake Pro Rata

Reinsurance capacity available was similar to that offered in 2004, but the number of new reinsurers was limited and only a few were prepared to offer increased support. It was also evident that some market segments sought to reduce capacity in 2005, making placements more difficult than in the recent past. This was especially true for treaties that included fire business.



PML Ceded
Air Capacity



Unused or so-called "air" capacity is the amount of spare capacity that insurers retain in their treaties to allow for increases in aggregate exposures. Air capacity has been fairly stable in recent years, and 2005 was no exception.

Although losses from the Niigata earthquake were not big enough to have a severe impact on treaties, the event nonetheless contributed to a difficult market in 2004. Treaties that included supporting fire business were also impacted by typhoon losses and, in some cases, poor fire results.

Commission terms were subject to change, where warranted by results. In some cases, it was possible to make a very modest increase in earthquake commission of up to 2.5 percent. On treaties with fire sections, the fire portion of the commission came under heavy pressure and was often reduced, with the amount of reduction based on experience.

The underlying reluctance of many reinsurers to write pro rata earthquake business has not changed. Despite the fact that most treaties are placed at below their modeled loss cost, many reinsurers write pro rata business with a view to participation in the more attractive excess of loss placements. As rates on excess of loss treaties continue to fall, it may be harder to

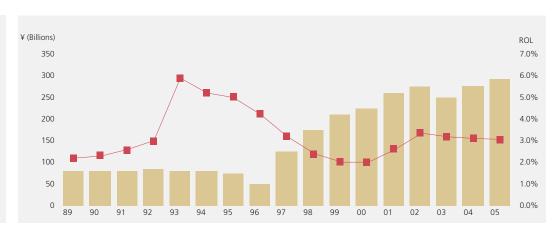
maintain support on pro rata business. Treaties with fire sections may well come under further pressure if 2004 typhoon loss numbers worsen or if fire results do not improve substantially in 2005.

Given the possibility of increased exposures during 2005, we anticipate that all earthquake pro rata placements will be more challenging in 2006.

Industrial/Commercial Earthquake Excess of Loss

For the second year in a row, capacity purchased by the Japanese market increased. The increase in 2005 capacity was around 6 percent. Market rate on line declined by a modest 1.6 percent, from 3.10 percent to 3.05 percent. Allowing for the change in aggregate exposures, the reduction was 5.8 percent.





Price reductions were not as great as in previous years. With generally poor experience in other lines of business, the reinsurance market resisted any significant reductions anticipated by cedents. It appears that pricing has reached the level at which some reinsurers no longer regard the class as attractive.

Earthquake excess of loss is often placed in conjunction with pro rata lines, and reinsurers will often consider their participation across the two lines. Reinsurers, especially those in Bermuda, were willing to walk away from this line in 2005. Oversubscription of the broker portion of placements was reduced, and the total number of written shares offered in 2005 was less than in the previous year. Written lines were nevertheless 1.66 times final signed shares, compared to 1.86 in 2004.

Earthquake excess of loss business is still viewed favorably by many in the reinsurance market, and in almost all cases marketing is limited to supporters of pro rata treaties.

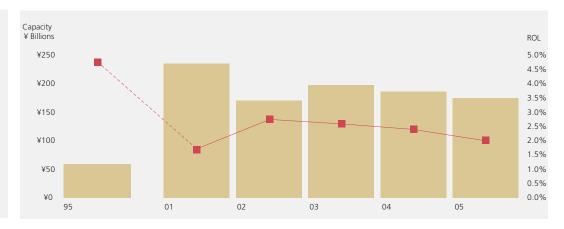
Generally, the market relies more on modeling for the earthquake peril than it does for windstorm, as evidenced by the different panel of reinsurers on the two lines. In recent years, Bermudian reinsurers have been more dominant in the earthquake line than in windstorm. It is possible that any further attempts to reduce the price of earthquake excess of loss would result in the loss of some capacity, especially among the more technical Bermudian reinsurers.

EFEI Excess of Loss

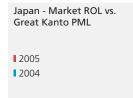
Capacity purchased by the market decreased for the second year in a row, from JPY187 billion to JPY176 billion.

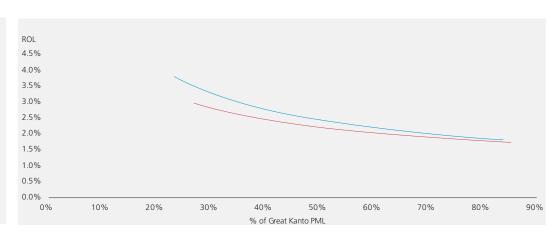
Market rate on line also decreased quite significantly, as several insurers accepted increased deductibles, thereby lowering their average ROL. On a risk-weighted basis, prices were down by approximately 10 percent. Capacity is now available at below the previous "market minimum" of 2 percent ROL.





The following chart shows fitted curves for ROL for exposure levels, measured as a percentage of Great Kanto PML. The downward shift in the curve reflects the softening market. Cedents sought cost savings through increased deductibles and reduced limits.





Marketing remains limited to supporters of pro rata and one or two Bermudian EFEI specialists. The 2005 renewal saw an increase in the number of reinsurers willing to support EFEI programs at below 2 percent ROL. As a result, the market ROL is now approaching a level similar to that of 2001, after taking into account movements in limit and deductible.

We expect further reductions to be available in the future due to the oversupply of capacity. However, the decline is likely to be less in 2006, as risk loads are beginning to approach minimum acceptable levels for the more technical capacity providers.

Windstorm Excess of Loss

The most serious of the typhoons to hit Japan in the 2004 season was Typhoon Songda, which typically affected layers paying 7 percent ROL or greater. Several lower layers responded to

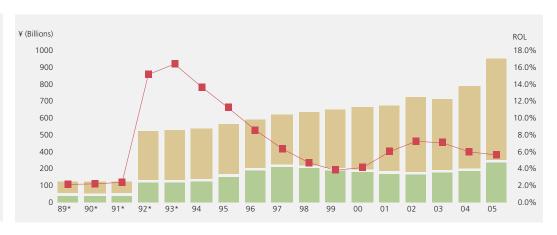
other typhoons as well. Based on current estimates, losses paid by reinsurers are approximately equivalent to three to four years' worth of market premiums for wind and flood reinsurance excess of loss covers.

Significant amounts of added capacity were purchased in 2005, due largely to enhanced risk management and a change in the method of calculating solvency as a result of pressure from rating agencies and other outside forces. While additional capacity was available, the amount of new capacity per program was very price-sensitive. The written-to-signed ratio on broker placements was 1.28, a modest decrease from 1.33 in 2004.

Rate increases varied, depending on views of the existing technical pricing, loss experience and new capacity purchased. Programs which had limited or no loss experience and which purchased little or no added capacity saw only a modest increase in price of up to 5 percent. At the other end of the spectrum, layers with significant reinsurance recovery and programs where new capacity was sought saw larger increases. Rate increases of 30 percent were seen on some layers that had been exhausted in 2004.

Structures were forced to change as cedents attempted to manage both the increased cost of loss hit layers and the requirement for additional capacity. Reinsurers quoted a higher price for new layers than for existing covers. As a result, many insurers extended their top layers or reduced self-reinsured percentages within programs to expand capacity. The cost increased significantly where new layers were purchased. Average ROL in the market declined as a result of the additional capacity purchased. This average ROL reduction came in spite of increases at the bottom end of programs following losses.





With the market's focus on capacity and price, there were few discussions on coverage issues. Changes in the solvency margin criteria are likely to put more focus on the peril of windstorm and may mean that cedents will have less flexibility over their reinsurance structures in the future. As a result, the understanding of both the various vendors' modeling results and the different market segments' pricing methodologies may become increasingly important in designing and securing the most cost-efficient reinsurance programs.

Contributor(s): James Nash, Edward Fenton

Australia and New Zealand

Catastrophe Exposure

With a land area of approximately 7.7 million square kilometers, Australia comprises 5 percent of the world's total land surface and is the world's sixth largest country. In addition to being the planet's smallest continent, Australia is also the lowest, the flattest and, apart from Antarctica, the driest. It has a risk profile that includes earthquake, flood, drought, cyclone, thunderstorm, hail, tidal surge and bushfire.

By contrast, New Zealand has a land area of approximately 270,000 square kilometers, about the size of the U.S. state of Colorado. Situated on the boundary of the Pacific and Indo-Australian tectonic plates, New Zealand's North and South Islands are prone to frequent earthquakes, volcanic eruptions and landslips, in addition to storms and flooding.

In April 1999, Sydney was struck by a hailstorm causing insured losses estimated at over AUD1.7 billion. Prior to this event, the Newcastle earthquake of December 1989 had been the costliest event for insurers, with losses totaling in excess of AUD1.2 billion.

New Zealand's costliest event remains the Bay of Plenty earthquake in July 1987. This event cost the insurance industry approximately NZD392 million, not including Earthquake Commission payouts.

The 2004 and 2005 seasons have been active in both Australia and New Zealand. A number of severe weather events have affected both Eastern and Western Australia. In March 2005, Ingrid became the only cyclone in recorded history to impact, as a severe tropical cyclone, on the coastline of three Australian states/territories, causing damage in Queensland, the Northern Territory and Western Australia. While it reached Category 5 status, insured loss was low due to the remoteness and low population density of the affected areas.

In New Zealand, 2004 and 2005 were also active for weather-related events, with storms, flooding and landslips causing considerable damage throughout the North and South Islands. The Lower North Island storms of February 2004 cost the insurance industry approximately NZD112 million.

Insurance Availability

Private insurance coverage is available for most Australian perils, with the notable exception of subsidence, which is excluded from residential policies. Widespread public pressure for the insurance industry to introduce flood insurance has so far produced a situation where the majority of insurers offer coverage for flash flood only. Availability of coverage for riverine flooding is still limited. The insurance industry continues to work with various federal and state agencies to develop additional solutions.

In New Zealand, the Earthquake Commission provides coverage for dwellings and domestic contents for property owners who have taken out traditional fire insurance. The perils covered are earthquake, natural landslip, volcanic eruption, hydrothermal activity and tsunami. Recent catastrophe events in New Zealand have also highlighted the issue of underinsurance among many homeowners.

2005 Reinsurance Market Position

Australia and New Zealand are attractive markets for global reinsurers, as they provide for diversification of catastrophe portfolios. Over the last few years, the insurance industry in both countries has undergone extensive consolidation through mergers, acquisitions and market exits, resulting in a market dominated by a handful of major companies.

The five dominant players are:

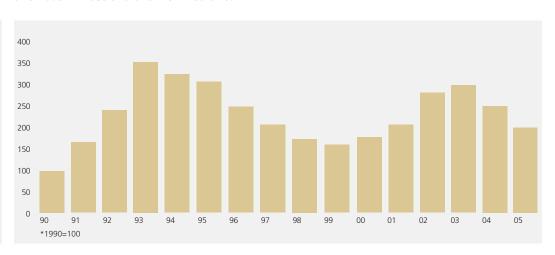
- Allianz
- Insurance Australia Group (IAG)
- Promina
- QBE
- Suncorp

These five companies purchase in excess of AUD9 billion of property catastrophe capacity, representing approximately 70 percent of the total Australian/New Zealand catastrophe reinsurance cover. These larger buyers increasingly employ their own individual purchasing strategies in order to achieve greater internal pricing transparency, marketing advantages and more efficient purchases in relation to their exposures.

The larger catastrophe reinsurance programs typically cover both Australian and New Zealand exposures. There is also a heavy reliance on sophisticated modeling tools by buyers, reinsurance brokers and reinsurers in structuring and pricing these trans-Tasman programs.

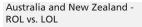
The following chart highlights the continued softening of the reinsurance market through 2004 and 2005 in Australia and New Zealand.





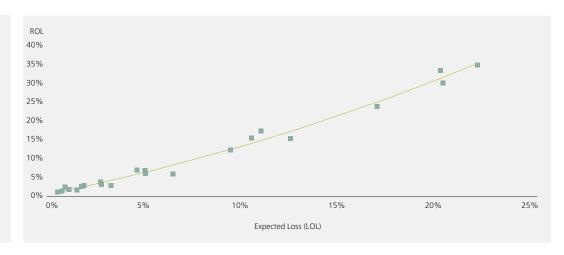
There has been a vertical movement in cover to higher retentions and higher limits. This has the mathematical effect of lowering average ROLs, since rates are lower for the top layers of programs in comparison with the lower layers. Another factor to be considered is the wide-spread use of private placements with differential terms, which has come at the expense of the more traditional subscription market placement methodology.

The following chart compares the expected loss (loss on line) to the market rate (rate on line) for various Australian/New Zealand catastrophe reinsurance programs. The expected loss was calculated using RMS 4.5 for Australia and New Zealand earthquake and windstorm.



■ 2005 Peers

Trendline



While we do not have a comparable chart for 2004, our internal data suggest that the 2005 curve has shifted down from 2004, reflecting margin compression as the global reinsurance market softens.

Proposed model changes, adequate reinsurance capacity and a continued trend towards increased retentions are all likely to further impact the catastrophe reinsurance market in Australia and New Zealand in 2006.

Contributor(s): Jamie Cook

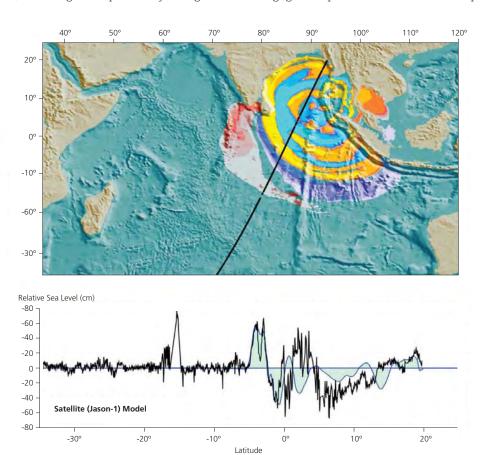
Southeast Asia

Catastrophe Exposure

Historically, the Southeast Asian countries with the greatest exposure to natural catastrophes have been Indonesia, which is subject to earthquake and flood, and the Philippines, which is subject to earthquake, typhoon and flood. However, the Indian Ocean tsunami in December 2004 caused insurers and reinsurers to reassess their positions on other Southeast Asian countries, including those previously thought to have negligible exposure to natural catastrophes.

Southeast Asia – Tsunami Image Two Hours after Earthquake

Source: The U.S. National Oceanic & Atmospheric Administration



The total insured property loss from this event is estimated to be in the range of USD3.3 billion to USD3.8 billion and could have been much higher if not for the low insurance penetration in the region, notably in Indonesia and Thailand. Indonesia suffered one large risk loss: a cement factory in the Aceh province belonging to the Lafarge Group with an estimated loss of USD100 million. The losses in Thailand were mainly from the resort hotels located on the tourist islands of Phuket and Phi Phi. Malaysia suffered some damage on the tourist islands of Langkawi and Penang, but the overall loss was not significant. In the six months following the tsunami, there has been little short-term effect on the insurance industry. The long-term effects, however, may be significant. For example, the general insurance association in Malaysia (PIAM) is currently holding an open discussion with the industry regarding Malaysia's possible inclusion in the CRESTA natural catastrophe zoning scheme.

Insurance Availability

There has not been any noticeable increase in the demand for earthquake insurance, and original rates have continued their downward trend. From a reinsurance perspective, the loss occurred too late in 2004 to have any impact on January 2005 pricing, and cedents were able to achieve rate reductions. It remains to be seen what position the reinsurance market will take for the January 2006 renewals and how much consideration will be given to the 2004 losses.

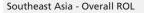
2005 Reinsurance Market Position

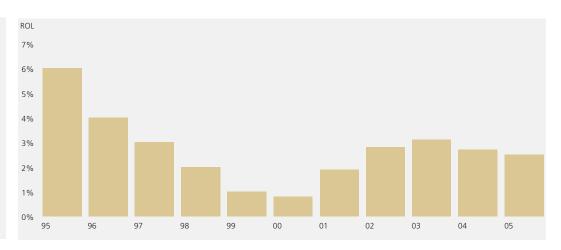
The following table summarizes the average ROL and year-on-year rate reductions. Malaysia experienced the lowest average rate reduction, while the Philippines and Indonesia experienced the highest. Indonesia averaged the largest ROL.

EXCESS LOSS RATES FOR 2005

COUNTRY	AVERAGE ROL / PROPERTY XOL	AVERAGE YEAR-ON-YEAR RATE REDUCTION
Indonesia	6%	15% – 20%
Philippines	4%	15% – 20%
Thailand	3%	10% – 15%
Malaysia	3%	5% – 10%

The overall ROL for Southeast Asia has decreased since 2003, as indicated in the following chart showing the overall ROL from 1995 to 2005.





Use of commercially available catastrophe models in Southeast Asia is currently limited to the RMS and EQECAT earthquake models for Indonesia and the Philippines.

Recently, the Philippine Insurance Commission issued a memorandum advising insurers that they should be buying up to 5 percent of aggregates for their net account catastrophe protection. While most of the larger companies currently purchase in excess of this figure (7.5 percent to 10 percent), the recommendation is likely to have some impact on smaller companies.

In Indonesia and the Philippines, there is a heavy reliance on national reinsurers, who provide significant proportional treaty capacity to the majority of the smaller companies. The larger companies rely more on international reinsurers. The regional reinsurance markets, notably Singapore, provide the majority of required capacity. London and Bermuda are not major players in the region due to the relatively small size of the nonproportional programs and the lack of incentive to provide proportional capacity.

Contributor(s): Richard Jones

Republic of Korea

Catastrophe Exposure

The Republic of Korea is exposed to the major hazards of typhoon and associated flood. The country experiences one to three storms per year on average, with most events occurring in August and September. In 2004, Korea had a relatively quiet year with almost no loss from typhoon or heavy rain. Typhoon Maemi, the worst catastrophe in the nation's recent past, struck the southeastern part of the Korean Peninsula in 2003, causing insured losses of KRW650 billion. Typhoon Rusa, the nation's second worst recent catastrophe, hit Korea in 2002 and resulted in insured losses of KRW150 billion.

Frequent rains also occur due to the East Asian monsoon. This weather system usually lasts for 20 days, during which time heavy rains and flash floods can result in extensive flood damage.

Korea's exposure to earthquake is relatively low, as is its exposure to terrorism. Although North Korean agents have been disruptive in the past, it is considered unlikely that the Pyongyang government would use terrorist acts to disrupt Korean society.

Insurance Availability

Rates for windstorm and flood cover are based on loss cost estimates calculated by the Korea Insurance Development Institute (KIDI). Average rates rose marginally in April 2002, due to the introduction of a new rating system, and have increased further in 2005. Under the new system, rates are based on building type, area and construction class. There are three building types (residential, commercial and industrial), seven geographic areas and four construction classes. A small compulsory deductible has also been introduced.

Wind damage and the subsequent inflow of rainwater are covered by the extended coverage endorsement to the standard fire policy. This endorsement does not provide flood coverage, however. An alternative wind and water damage clause covers windstorm, flood and tidal wave. A growing percentage of insured property is covered on a property all-risk basis, which automatically includes windstorm.

While terrorism coverage is being curtailed, most insureds are not disturbed by its withdrawal since Korea is perceived to have a low exposure to terrorism threats. Terrorism coverage is absent in both property and commercial lines, and capacity for terrorism coverage is perceived to be generally unavailable. Terrorism coverage can be purchased as a coverage extension, but only a small number of insureds have done so.

2005 Reinsurance Market Position

Proportional Treaties

Virtually all property surplus treaties in the market now have imposed event limits, typically one to four times the single-risk limit. These event limits were maintained at 2005 renewals. Co-insurance clauses with per risk cession limits also remained a feature.

On average, treaty reinsurance commissions increased in 2005, owing to excellent results in 2004. However, the increase was only half as much as the decrease exhibited at 2004 renewals.

Specific Buildings

Property insurance is compulsory for those buildings with a floor area exceeding 3,000 square meters. The standard Korean fire policy must normally be extended to cover natural perils. With regard to specific buildings, however, natural perils cover had to be supplied as standard and free of charge. The Korean insurance industry believed that this requirement greatly exacerbated losses from Typhoon Maemi, and the industry subsequently lobbied hard to have the rule changed. As of May 1, 2005, this requirement was removed and automatic free cover for natural perils was changed to optional cover for an additional premium. Industry participants expect that this will help reduce countrywide exposure to wind and flood over the coming years.

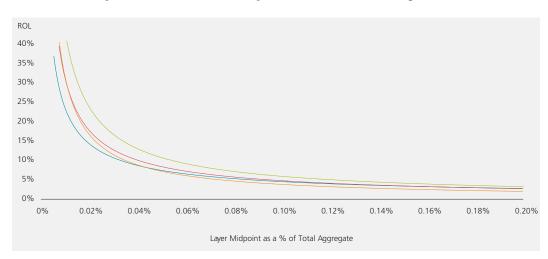
Event Excess of Loss Program

Most program limits were unchanged, although some had small increases. As previously, most programs are split between risk and event, with three companies retaining combined risk and catastrophe layers at the top end of their programs.

Total event cover increased by around 3.5 percent over 2004, with premiums decreasing by 10 percent to 20 percent, owing to good results. Deductibles remained virtually unchanged.

Reinsurers in London and Bermuda were again interested in quoting for Korean catastrophe business. However, actual cases of new participation or larger shares on existing business were fairly limited. As in previous years, much capacity was sourced from the Singapore reinsurance market, and competition for Korean catastrophe business remains strong.





Contributor(s): Duncan Garland, J.S. Lee, Phillip Smith

Taiwan: Catastrophe Exposure

Taiwan

Catastrophe Exposure

Taiwan is exposed to the major hazards of earthquake, windstorm and typhoon. The country has experienced two catastrophic events in recent years that significantly impacted the insurance industry. The Chi Chi earthquake in September 1999 damaged more than 50,000 properties, causing an insured loss of TWD238 billion. Typhoon Nari, which struck Taiwan from the northwest in September 2001, caused the most severe floods in the country's history and resulted in an insured loss of TWD17.3 billion.

Insurance Availability

Basic commercial property forms cover fire, lightning and fire-following explosion. These forms can be endorsed to cover additional perils, including earthquake, typhoon/flood and terrorism. A comprehensive commercial property policy is also available. This is written on an all-risk basis and provides full coverage for earthquake and typhoon/flood. Both forms are approved by the Insurance Bureau (formerly the Ministry of Finance), and tariff rates apply for risks with insured values up to TWD3 billion.

For larger industrial and commercial risks, coverage for earthquake and typhoon/flood is available by endorsement to the all-risk policy forms used in the international market, mainly the Association of British Insurers or the Munich Re forms.

On April 1, 2002, a new version of the residential fire and earthquake policy form was introduced by the Insurance Bureau. The residential fire section can be extended to cover additional perils, including typhoon/flood. Coverage for earthquake is provided up to a maximum insured value of TWD1.2 million, with contingent living expenses of TWD180,000. This coverage will only respond to a total constructive loss. Long-term residential fire policies issued prior to April 1, 2002, will be phased out but can be endorsed to cover earthquake within the mortgage period.

Coverage for terrorism is available by endorsement to both the residential fire and the basic commercial property policy forms. Tariff rates are 0.02 percent for residential and 0.012 percent for commercial. Due to a lack of reinsurance support, local insurers generally do not offer this coverage to the commercial sector. It may be granted, however, under the residential fire policy. Public demand for the coverage is limited.

On January 1, 2004, an insurance pool was formed that provides terrorism coverage for personal accident business up to a maximum insured amount of TWD2 million per person. This pool is administered by the Non-Life Insurance Association in Taiwan and was created to share terrorism risk for personal accident business among private insurance companies and the Central Reinsurance Corporation in Taiwan. The pool has a cap amount of TWD1 billion. If losses exceed that amount, claims would be paid on a pro rata basis.

Residential Earthquake Pool

The Taiwan Residential Earthquake Insurance Pool (TREIP) was instituted by the Insurance Bureau (formerly the Ministry of Finance) on April 1, 2002, and is administered by the Central Reinsurance Corporation. The pool was created to share earthquake risk between private insurance companies and the government. Private insurers retain the first TWD2 billion of risk, and the government acts as a backstop, assuming the risk above that level. To manage and ultimately finance the next tranche of risk (TWD18 billion excess TWD2 billion), the Insurance Bureau has created a trust referred to as the Foundation Layer. A catastrophe bond and two reinsurance layers above TWD20 billion (up to TWD40 billion) were placed in the international market. The government is responsible for an additional TWD10 billion layer above TWD40 billion, giving the fund a total limit of TWD50 billion. If losses exceed this amount, claims are paid on a pro rata basis.

In an effort to complement TREIP's reinsurance program and diversify sources of reinsurance capacity, the government successfully issued a landmark USD100 million catastrophe bond in August 2003. The three-year bond operates with an indemnity trigger of TWD20 billion.

TREIP's capacity is illustrated below:

TREIP – CLAIMS-PAYING CAPACITY

LAYER	ALLOCATION
LATER	ALLOCATION
TWD10 billion xs TWD40 billion	Government
TWD10 billion xs TWD30 billion	Reinsurance Second Layer
TWD6.6 billion xs TWD23.4 billion	Reinsurance First Layer
USD100 million xs TWD20 billion	Catastrophe Bond
TWD18 billion xs TWD2 billion	Government (Foundation Layer)
Primary TWD2 billion	Domestic Insurers (Private Sector)

As of April 2005, the aggregate insured value of TREIP reached TWD1.7 billion, equivalent to a take-up rate of 16.67 percent of total estimated 7.6 million households in Taiwan.

2005 Reinsurance Market Position

Despite two major fire losses and a few typhoons in 2004, most reinsurance programs in Taiwan generated profitable results for reinsurers. All the catastrophe excess of loss programs were unaffected by losses, and 2004 was the third consecutive year enjoying claims-free results.

For 2005, most property reinsurance structures remained basically unchanged.

Proportional

Natural perils continue to be excluded from most of the proportional treaties and reinsured under catastrophe excess of loss programs. For those proportional treaties covering natural perils, event limits continue to be imposed but slightly increased according to the merit of the treaty.

Most cedents succeeded in securing improvements in proportional treaty terms, such as expansion in treaty capacity with corresponding increase in cedents' retentions, relaxation of coinsurance clause and increased reinsurance commissions.

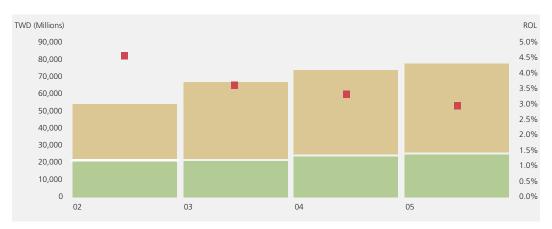
Excess of Loss

Most programs are split between risk and catastrophe, but a few combined risk and catastrophe programs affected by risk losses in 2004 were restructured into separate risk and catastrophe programs for 2005. Most catastrophe excess of loss programs cover all perils, but some of the top layers may be for the earthquake peril only.

Due to co-insurance activities and a willingness to retain business, most cedents' exposure increased by an average of 30 percent to 40 percent in 2004. This has led to purchasing of higher limits in some programs, but the deductibles mostly remain unchanged. Total catastrophe capacity for the market increased by 10 percent.

Pricing for catastrophe excess of loss programs has continued to decline, as seen in the charts below. It is important to note that the chart below reflects the change in rate on line averaged over the company base but does not account for underlying changes in exposure.

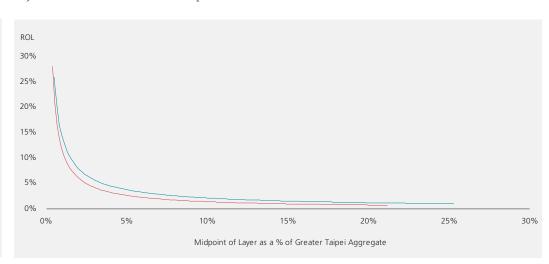




As the following chart illustrates, the market rate on line decreased by 10 percent, but the risk-adjusted reduction was about 30 percent.



2004 Trendline2005 Trendline



There continued to be abundant capacity for catastrophe excess of loss programs, despite price reductions. Reinsurers are increasingly willing to compete for business, and most programs were oversubscribed.

Contributor(s): Danny Yeung

Europe

United Kingdom

Catastrophe Exposure

The major natural perils impacting the United Kingdom are windstorm, sea surge, riverine flooding and winter freeze. The table below lists major events since 1981, along with their indexed values as of January 2005, according to the Association of British Insurers (ABI). This is the most current information available.

As the table indicates, there have been very few significant natural catastrophes in the United Kingdom over the past 24 years. Only the storms of 1987 and 1990 have had a notable impact on the reinsurance market.

UNITED KINGDOM: MAJOR WEATHER INCIDENTS IN THE UNITED KINGDOM

Source: Association of British Insurers

DATE	INCIDENT	COST ESTIMATE AT THE TIME OF OCCURRENCE (GBP MILLIONS)	COST ESTIMATE ON A JANUARY 2005 BASIS (GBP MILLIONS)
Dec 1981-Jan 1982	Arctic weather, including severe blizzards, affecting whole country - particularly bad in Wales. Rapid thaw causing major floods around Gloucester, York and Selby. Lowest temperature ever recorded in British Isles (-27 degrees, C) equaled at Braemar in Cairngorms.	250	590
Jan-Feb 1984	Severe gales followed by heavy snow and consequent flooding. Particularly bad in north of country.	175	375
Jan-Feb 1985	Snow and freezing temperatures, particularly bad in north of country.	145	294
Late Mar 1986	Nationwide gales.	55	108
Early Jan 1987	Severe snow nationwide, but particularly bad in the southeast areas of the country.	277	516
Oct 1987	Hurricane force winds causing extensive damage throughout the south and southeast.	1,050	1,957
Jan-Feb 1990	Storms and flooding throughout Great Britain.	2,081	3,158
Feb 1991	Severe snow and freezing temperatures followed by flooding.	185	263
Jan-Feb 1993	Storms and flooding throughout Great Britain, particularly severe in Scotland.	185	246
Dec 1995-Jan 1996	Severe snow and freezing temperatures, followed by burst pipe incidents in Scotland and northeast England.	320	400
Dec 1997-Jan 1998	Heavy storms and flooding throughout Great Britain.	270	320
April 1998	Heavy rain causing flooding.	137	160
Oct 1998	Heavy rain causing flooding.	100	117
Oct-Nov 2000	Heavy rain causing flooding.	760	856
Oct 2002	Windstorms.	110	117
Jan 2005	Floods in Carlisle.	243	243
Jan 2005	Storms in Scotland.	124	124

The 1990 storm, which affected several countries, highlighted the potential clash between the United Kingdom and Europe. This caused reinsurers to review the correlation between their UK and northern European exposures, aggregating them into a single zone and then re-evaluating their possible maximum loss. The same issue was raised again by Windstorm Erwin earlier this year.

The most significant flood event in the country's modern history was the North Sea flood in 1953. Since that event, there have been no significant flood losses with a serious impact on catastrophe protections. The absence of a recent, truly catastrophic flood, together with the improvement of sea defenses and the steady increase in population densities and housing values in coastal areas, make flood the greatest imponderable for reinsurers of United Kingdom catastrophe covers.

The profitability of many general insurance portfolios has been eroded over recent years by smaller, local events, such as the riverine floods in 2000 and the storm floods in 2005, which were not substantial enough to impact the reinsurance market after the application of the hours clause. Despite the scarcity of large catastrophe events in the United Kingdom, the numerous small losses that have occurred reinforce insurers' concerns about the potential damage that could be caused by a truly significant event.

Insurance Availability

The majority of both commercial and residential policies currently include coverage for the full array of natural perils.

Over the past few years, the insurance industry has become increasingly concerned about the availability of flood coverage, due to the underfunding of sea and river flood defenses and the continued development of both commercial and residential buildings in flood plain areas. Improved resolution of flood mapping has also heightened insurers' concerns about the peril.

As a result of the 2000 floods and the increased frequency of riverine flooding in general, insurers have been meeting with government officials to discuss how flood is to be managed in the future. In January 2003, the insurance industry's "Statement of Principles" went into effect, whereby insurers continue to provide flood coverage for residences and small business properties in those areas that meet the government's minimum flood defense requirements and in areas where the government agrees to fund improved flood defenses due for completion in 2007. That said, premiums and policy conditions offered by insurers reflect the varying degrees of risk. In those areas where the risk of flood is high and no improvements in the defenses have been planned, insurers have not guaranteed to maintain cover. In these circumstances risks are reviewed on a case-by-case basis.

Subsidence is also covered under the original policies. Under the homeowners policy, the usual deductible for this peril is GBP1,000. While not protected under the catastrophe programs, this peril has in the past produced significant losses, which can be protected by a specific aggregate or risk cover.

Following the events of September 11, 2001, all markets were forced to reassess their exposure to terrorism. The United Kingdom already had a government-sponsored pool, Pool Re, a facility put into place following a major property loss from two explosions in London in the early 1990s. Previously, Pool Re only provided cover for fire and explosion. This situation has now been reviewed by the government, which acts as reinsurer of last resort, and Pool Re now offers coverage on an all-risk basis, which includes aircraft, flood and nuclear contamination.

Coverage for terrorism is also available outside of Pool Re. Catastrophe terrorism reinsurance coverage is available for residential risks but excludes losses from nuclear, chemical or biological attack.

Regulation of the UK Insurance Industry

One of the key issues affecting the UK insurance market has been the regulation of general insurance by the Financial Services Authority (FSA), which went into effect on January 14, 2005. The new regime is intended to be more sensitive to the risks faced by insurers. Each company is now required to calculate its enhanced capital requirement (ECR), which takes into account the levels of risk inherent in different types of business (premium and liabilities) as well as the assets (i.e., credit and market risk).

As of January 1, 2005, insurers are required to perform stress testing on their capital adequacy. The testing involves "insurance risk," which includes the impact of catastrophes. Results of these tests could indicate a need for more or less reinsurance protection, thus leading to a revision in catastrophe programs.

2005 Reinsurance Market Position

Buyers

The considerable consolidation in the insurance market within the UK over the last ten years has abated. The buyers who now dominate the purchase of standalone catastrophe reinsurance in the country are:

- Aviva
- R&SA
- · Royal Bank of Scotland
- HBOS
- · Lloyds TSB

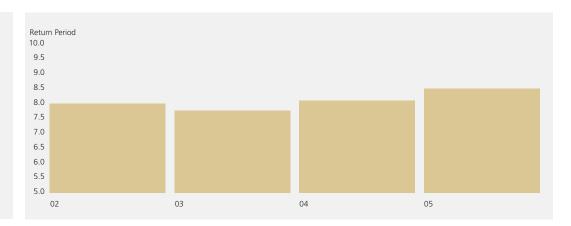
Together, these five buyers purchase in excess of GBP4 billion of property catastrophe capacity, representing approximately 65 percent of the total United Kingdom catastrophe reinsurance cover.

In addition to the above companies, Zurich, AXA and Allianz, which buy Pan-European protections that incorporate their UK exposures, account for about GBP2.5 billion of catastrophe capacity in the United Kingdom.

The demand for UK catastrophe capacity is now dominated by these eight buyers, who represent about 80 percent of the total catastrophe protection purchased for UK exposures.

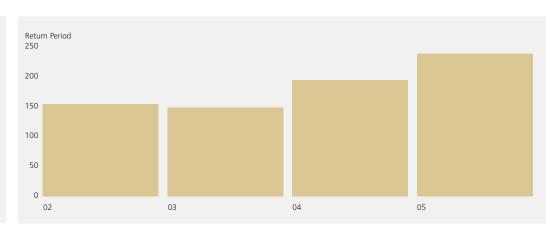
The catastrophe market in the United Kingdom is heavily influenced by sophisticated modeling tools that assist buyers in the structuring of their programs. The following chart shows the modeled (RMS RiskLink®-ALM) average return period trend in program deductibles for the more significant buyers.

United Kingdom - Average Return Periods



The next chart shows the modeled (RMS RiskLink-ALM) average return period trend for the exhaustion point of programs for the more significant buyers.

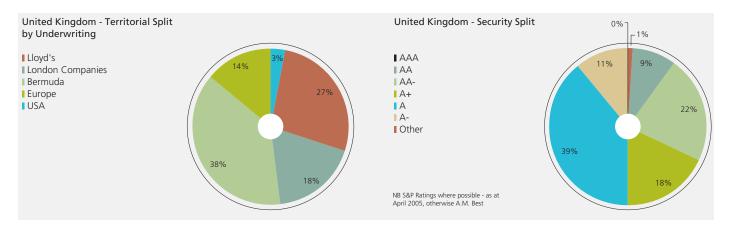
United Kingdom - Average Exhaustion Return Periods



Sellers

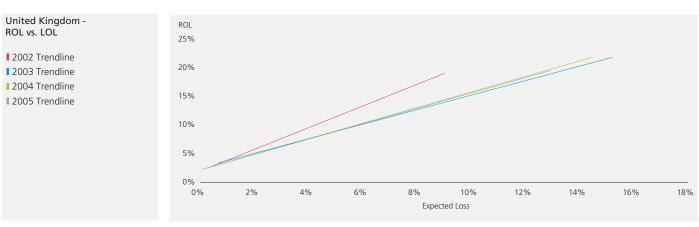
The way reinsurance capacity is solicited has changed dramatically over the past few years, with buyers looking to obtain deeper and more meaningful relationships with a smaller number of financially strong reinsurers worldwide.

The charts below illustrate where UK catastrophe capacity was purchased, based on Guy Carpenter's experience.



Although capacity for UK catastrophe programs remains significant, it is for most major reinsurers a significant exposure within their portfolios. Since 1990 UK insurers have not made a major contribution to any losses that catastrophe reinsurers may have suffered. The foundation of reinsurers' pricing is therefore model-driven, with reinsurers' margins added to the modeled loss cost.

The chart below compares the expected loss (loss on line) to the market rate (rate on line) for each layer of a program in the United Kingdom. The trend lines represent an average of each layer for each year. The expected loss was calculated using RMS for UK wind and sea surge.



Such charts are useful for following the annual changes in risk loads and price. The illustration indicates a decrease in risk load and price from 2002 to 2003, little change from 2003 to 2004 and a modest reduction between 2004 and 2005.

The continued concentration of aggregates into fewer programs has reduced choices for reinsurers. To write a meaningful UK portfolio, reinsurers either had to agree to the pricing levels of these few major programs or concentrate on smaller covers where pricing, with no capacity constraints, is more aggressive.

Most buyers obtained a number of quotations from a variety of leading reinsurers. While opting for prices at the lower end of the spectrum, most significant users of capacity again refrained from selecting the cheapest terms, preferring to enhance reinsurer relationships. In return, buyers expect strong security, differentiation, flexibility and a willingness to pay claims promptly.

Contributor(s): David Ivey

France

Catastrophe Exposure

France has exposure to the following catastrophes:

- Storm in the coastal regions of the north and west.
- Earthquake in the east and southeast.
- Flood, to which the whole country has some exposure.
- Avalanche and landslide in the mountainous areas.

In addition, the French Overseas Departments and Territories (DOM/TOM) face exposures specific to their locations – namely, storms in the Caribbean islands and the island of Reunion and volcanic eruption in Guadeloupe.

Guy Carpenter has produced and distributed a map reflecting the various perils to which metropolitan France is exposed.¹

France - Natural Peril Exposure Maximum Wind Speed (Meters/Second) Since 1970

31 - 37

37 - 43

43 - 49

■ 49 - 54 ■ 54 - 63

Magnitude (Richter Scale)

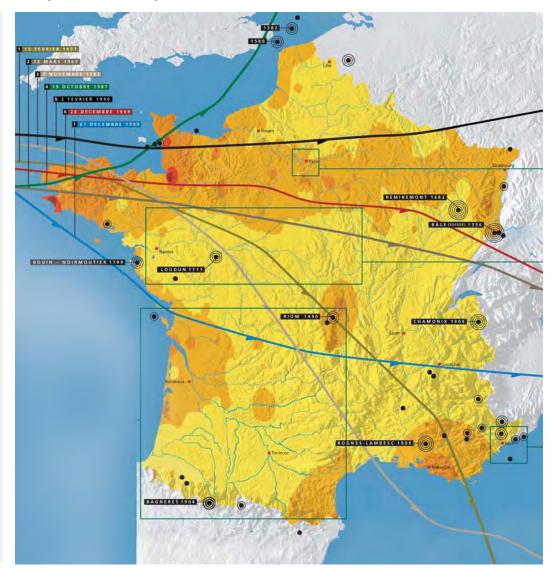
• 5.1 - 5.3

5.3 - 5.6

⑤ 5.6 - 5.9

5.9 - 6.2

6.2 - 7.0



 $^{^{\}scriptscriptstyle 1}$ A more detailed version of the map is available to clients of Guy Carpenter upon request.

France: Insurance Availability 41

Insurance Availability

Storm coverage is included in almost every homeowners contract and in most commercial/industrial contracts. Floods, earthquakes and subsidence are covered by the Catastrophe Naturelles (Cat Nat), a special program reinsured mainly by a government-owned reinsurer, Caisse Centrale de Réassurance, with some additional participation by professional reinsurers. The Cat Nat plan has been modified to cover all damage caused by major cyclones affecting tropical regions, without distinction between damage caused by wind and damage caused by water. Insurance companies are permitted to establish two different tax-deductible reserves for storms and Cat Nat. These reserves, known as equalization reserves, are designed to stabilize financial results over a period of several years.

On March 31, 2004, the International Accounting Standards Board (IASB) issued International Financial Reporting Standard (IFRS) 4, Insurance Contracts. Under IFRS 4, reserves for possible claims under insurance contracts that are not in existence at the reporting date, such as equalization reserves, are prohibited. In the European Union, any company listed on a public securities exchange is required to use IFRS rules to prepare its financial statements, effective January 1, 2005.

It is important to note that international financial reporting standards are different from regulatory reporting rules. Equalization reserves are promulgated by insurance regulations. Accordingly, an insurance company in France will report the equalization reserves in its financial statements submitted to regulators, but not on its financial statements as prepared under international financial reporting standards. If tax authorities follow regulatory reporting, tax deductibility will not be immediately impacted by the IFRS 4 rules.

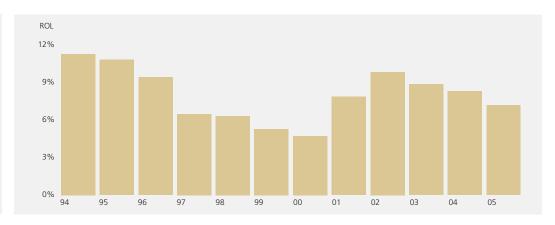
2005 Reinsurance Market Position

The Lothar and Martin storms of 1999 remain the main drivers of rate levels in the French market. The overall cost of those events was approximately EUR9 billion for Europe as a whole, with France accounting for around EUR7 billion. Seventy percent of the loss was attributable to Lothar.

Total reinsurance capacity has remained stable over the last few years at about EUR5.5 billion, while price has decreased by 5 percent and overall exposure has increased by 3.5 percent.

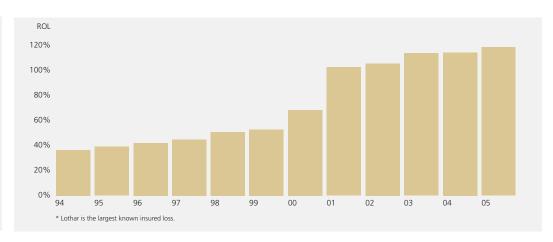
The following charts illustrate the development of average rates on line, along with the average ceiling level in relation to the event of reference, Lothar, the highest insured loss on record. As in 2004, the average ROL has dropped and now stands around 7 percent.





The majority of the capacity has been provided by traditional reinsurance. Penetration by parametric covers remains marginal. Capacity stands, on average, at 120 percent of Lothar.

France - Average Top Capacity as a Percentage of Lothar*



Contributor(s): Bernard Paul

Germany

Catastrophe Exposure

Germany's main natural perils are storm, flood, hail and earthquake. Winter storm is generally considered the country's greatest catastrophe exposure by far. However, the economic losses from a major flood or earthquake in Germany could potentially be as great as or greater than those arising from a major windstorm. While earthquakes are rare in Germany, other perils are significantly more frequent.

Hailstorms often occur in summer, mainly in the southern part of the country. While these are normally local events, they can nevertheless cause severe damage. The Munich hailstorm of 1984 remains the benchmark of the worst-case scenario for a hailstorm in southern Germany, causing economic losses totaling EUR1.5 billion and insured losses of EUR750 million.

In 2002, the German insurance market experienced its highest annual market loss from natural perils since 1990. The largest natural catastrophe in Germany was the flooding that occurred over a two-week period in August 2002, affecting major parts of Bavaria, Saxony and other eastern German states. In Germany the total economic loss was EUR9.2 billion.

In recognition of the importance of flood hazard and exposures to German insurers, Guy Carpenter, in collaboration with EQECAT, launched the landmark "DACH Flood" model project in 2003. The project, scheduled for completion in September 2005, is intended to provide the insurance community with the first commercially available probabilistic flood model for river basins in Germany and Austria. Different software modules provide:

- Probabilistic modeling of precipitation events.
- The resulting flood discharge and extent of inundation.
- The relationship between water depth and insured damage.
- The distribution of different property types according to elevation and distance from rivers.
- Modeling of insurance terms and conditions and reinsurance treaty structures.

The model enables the user to import and analyze either single site (lat/long) or aggregate (postcode, CRESTA zone or other geographic unit) information. Validation of the model is being undertaken by Guy Carpenter in conjunction with EQECAT, interested clients and a panel of external reviewers who are experts in the field of hydrology and insured losses from flood in Central Europe. Early feedback from German insurers regarding the results of DACH Flood suggests that this model will quickly become the market standard for probabilistic flood risk assessment in Germany.

Insurance Availability

Personal and commercial businesses are normally insured against fire, lightning, explosions, aircraft (FLEXA) perils, water pipe damage and storms. Extended elemental perils coverage – which responds to six perils, including earthquake and flood – can be obtained for additional premiums. Market penetration for the extended elemental perils coverage remains low, however, except for policies covering risks in the states of Baden-Württemberg, Mecklenburg-Western Pomerania, Brandenburg, Saxony-Anhalt, Thuringia and Saxony. Former monopoly companies in these states used to offer coverage for elemental perils on a compulsory basis, and most companies now doing business there continue to offer the coverage in combination with the standard policies.

In addition, while industrial risks are insured mainly on a named-perils basis, the elemental perils extension (extended coverage that combines storm and other elemental perils) is generally sold with the standard fire policy. Consequently, elemental perils coverage for industrial risks has substantial market penetration.

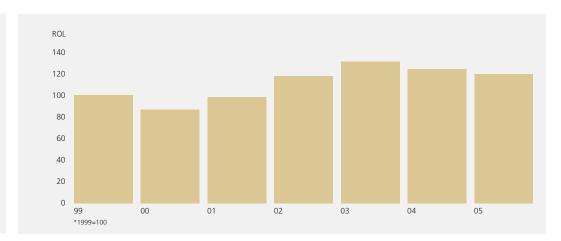
2005 Reinsurance Market Position

Increasingly, catastrophe modeling provides the basis for reinsurance decisions regarding retention and limit levels. All well-known modeling firms have products for modeling German storms. Most German property and casualty insurance companies purchase reinsurance protection against natural perils to cover the portfolio in the case of a 100-year event, though buying attitudes can vary widely among companies.

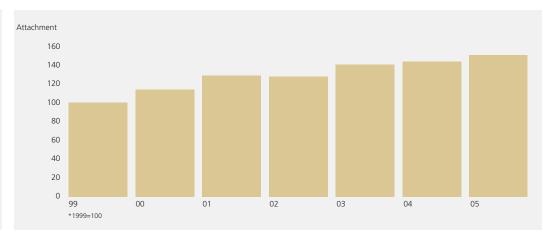
While some small rate reductions were seen in late December 2004, catastrophe reinsurance rates were largely stable at January 2005 renewals. At the present time, the catastrophe reinsurance market in Germany is characterized by substantial overcapacity. Reinsurers continue to push for greater transparency on underlying exposures.

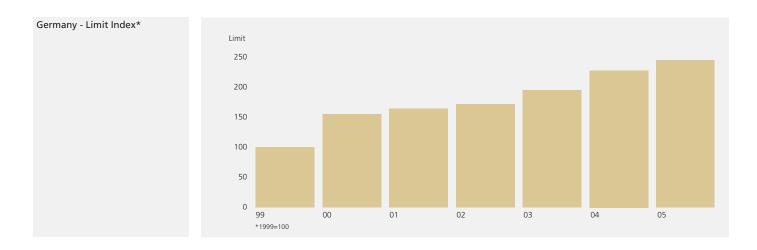
As the charts below indicate, attachment points increased modestly in 2005, while limits continued to increase. Our index shows limit at more than double the average level of 1999.

Germany - ROL Index*



Germany - Attachment Index*





Contributor(s): Stefan Schneider, Jan Störmann, Jane Toothill

Austria

Catastrophe Exposure

Austria's most significant natural catastrophe exposures are hail, flood and windstorm. The area of Vienna and the Danube basin in upper Austria are the most exposed regions. Although the country has been struck by several windstorms in the past, Austria generally is not seriously affected by heavy winds.

The meteorological fronts that cause hailstorms tend to move in an easterly direction across Europe, causing individual scattered hail showers over a widespread area. Since the formation of hail is associated with currents of rising air in thunderstorms and locations where air masses are forced upwards, there is an increased tendency for severe hailstorms in Austria's mountainous regions and adjacent areas. There have been two major hailstorms in the recent past, one in July 2000 and another in May 2003. The 2000 hailstorm affected a 20 kilometer-wide strip from north of Salzburg to south of Linz and caused an insured loss of more than EUR250 million. The 2003 hailstorm occurred in the Vienna area and caused an insured loss of EUR50 million.

Floods have occurred in various parts of Austria but with no regular pattern. The worst flood event to date occurred in August 2002 and affected large parts of the country. The economic loss within Austria was approximately EUR3 billion, and the insured loss is estimated at EUR400 million to EUR500 million.

To assist with the assessment of insured flood exposures in Austria, Guy Carpenter and EQECAT are extending the DACH Flood model to include the Danube basin in Austria. This model should allow users to carry out a probabilistic flood analysis for the lower part of the Danube by the fourth quarter of 2005. For further information on the model, see the section of this report on Germany.

The earthquake hazard in Austria is considered to be low. The last notable earthquake was a magnitude 5.4 event that occurred in 2000 to the south of Vienna.

Insurance Availability

While windstorm is usually included under homeowners policies, there is only limited coverage, if any, available for flood and earthquake. For commercial and industrial policies, cover for windstorm, flood and earthquake (extended perils) can be obtained for additional premium. Weight of snow is included within most covers and is a significant peril in the provinces south of the Alps.

Insurers are coming under increasing pressure from the government to offer wider cover for catastrophe perils, and the insurance association is working with the state and federal catastrophe funds to come to a solution, although no concrete proposals have yet been made.

2005 Reinsurance Market Position

Increasingly, catastrophe modeling provides the basis for reinsurance decisions regarding retention and limit levels. There are currently two commercially available storm models for Austria. Earthquake and flood modeling products are in the process of development. At a minimum, most Austrian property insurance companies purchase reinsurance protection against natural perils to cover the portfolio up to a 100-year event, though buying attitudes can vary widely among companies.

At 2005 renewals, the Austrian market saw rate reductions of up to 10 percent for catastrophe reinsurance. At the present time, the catastrophe reinsurance market in Austria is characterized by substantial overcapacity. This is due to the size of the Austrian insurance market, although the portfolios of some of the bigger Austrian companies also include significant Eastern European exposure, which has become increasingly relevant to reinsurance protection. Reinsurers continue to push hard for greater transparency on underlying exposures.

Contributor(s): Marco Meili, Stefan Schneider, Jane Toothill

Italy

Catastrophe Exposure

Earthquake, flood, landslide and seaquake are the main catastrophe exposures for Italy. The country is geologically young and very active from a tectonic point of view. The most important fault crosses from northwest to southeast, with three major earthquake-exposed areas: Calabria, Friuli and Umbria/Abruzzo.

In the last century, Italy has been struck by four major earthquakes: Messina and Reggio Calabria (1908), Abruzzo (1915), Friuli (1976) and Irpinia (1980). The loss of life and the levels of property damage were very high. As a result, in 1980 the country's national research center, the Centro Nazionale di Ricerca (CNR), created an earthquake risk table that is still in use. The latest event with considerable impact on buildings was an earthquake that occurred in the region of Lake Garda in December 2004.

The country's greatest risk of river flooding centers around the Po River, which flows from west to east through Italy's northern regions and is the country's largest river basin. One major flood event, which occurred in 2000, caused the evacuation of about 30,000 people and resulted in an economic loss of EUR5.7 billion. Many landslides and flood events also occur in the southern part of the country.

Seaquakes are not common in Italy, with only 64 events recorded in the last 2000 years. However, this is an event that needs to be monitored in the future, especially since climatic changes may increase the severity of this peril. The eastern part of Sicily is particularly exposed to this risk.

Historically, natural catastrophes have tended to cause damage in Italy, not only because of the violence of the events, but also because of the high population densities resulting from increased urbanization in the late 1960s. This can be seen, for example, in the interruption of small patterns of water flow and the urban growth in such high-risk areas as the villages on the slopes of Mount Vesuvius and Mount Etna.

Insurance Availability

Natural catastrophes represent a constant threat for Italy and a huge burden to the country's budget, with average expenditures over the last 10 years amounting to about EUR4 billion per year. By contrast, the average insurance expenditure is relatively small, just EUR40 million per year.

To address this situation and to reduce government expenses, financial legislation drafted in 2005 reintroduced the concept of a public-private system involving insurance companies in the coverage of natural catastrophe losses. The concept was first introduced in Article 40 of the country's 2004 financial legislation. The proposed 2004 legislation included the following features:

- Compulsory inclusion of the natural disaster risk cover in fire insurance contracts for premises intended for residential use.
- No insurance cover to be provided in the case of buildings that lack planning permission.
- No action to be taken by the government in case of uninsured buildings, except when the owner is destitute.
- Creation of a Consortium of insurance companies to manage risks (taking into account their catastrophic nature), with an annual capacity initially set at EUR1.5 billion.

• Government support in the event of natural disasters with damages exceeding the maximum annual exposure limit of the Consortium

The proposed legislation was criticized during parliamentary proceedings, which resulted in its deferral in the final phases of the debate. Opponents argued, in particular, that the semi-compulsory aspect of the legislation amounted to a new tax on housing. However, it should be noted that under the present arrangement the cost of natural disasters is borne by the general tax system.

Legislation passed at the end of 2004 (specifically, n. 311 of 12/30/2004, financial law 2005) confirmed the voluntary nature of the insurance scheme for Cat Nat losses, with the government contributing the capital to a newly established reinsurance company, thus enhancing the reinsurance capacity of the market. The plan created a guarantee fund with a 2005 endowment of EUR50 million, which will be managed by Consap SpA (Concessionaria di servizi assicurativi pubblici). The plan set out regulations governing the setup of the new reinsurance company, together with rules pertaining to fund operations and the development of improved Cat Nat insurance policies.

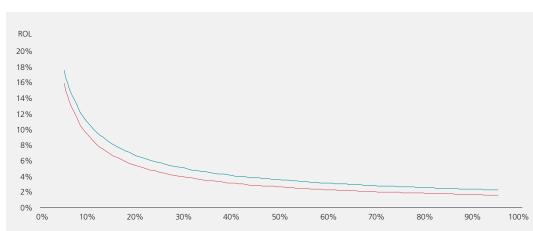
2005 Reinsurance Market

The trend away from proportional to nonproportional reinsurance structures abated during 2005 treaty renewals, as most clients wished to maintain their current mix of program types. For excess of loss treaties, purchasing at higher layers was a priority, as in 2004. Overall limits purchased declined slightly, with most clients limiting purchases to the 250-year return period.

The prices of catastrophe excess of loss covers decreased by 10 percent to 15 percent, compared with 2004. The lower pricing was seen mainly on layers with lower ROLs.

The following chart indicates that premium loads across layers were lower on average in 2005 compared with 2004, reflecting the softening market.





Contributor(s): Gerardo Di Filippo, Vincenzo Cacia

Nordic Region

Catastrophe Exposure

Flood and winter windstorm are the main catastrophe exposures in the Nordic region. The flood exposure in the region mainly emanates from melting snow. Norway and Denmark are considered to have the highest exposures for wind, while Finland is considered to have the lowest. After developing over the Atlantic, storms typically hit Norway's west coast or sweep through Denmark and the southern part of Sweden.

The latter is exactly what happened in January 2005, when Denmark and the southern part of Sweden were hit by the windstorm Erwin. This resulted in losses in Denmark totaling about DKK4 billion, or roughly one-third of the losses caused in 1999 by Anatol, the strongest windstorm recorded in Denmark. In Sweden the loss from Erwin is estimated at SEK4.4 billion, of which SEK1.5 billion is forest loss.

LARGEST LOSSES IN RECENT YEARS

*Insured loss only

NAME	YEAR	REGION	PERIL	LOSS (MSEK)*
Erwin	2005	Denmark/Sweden/Norway/Finland	Windstorm	9,101
Anatol	1999	Denmark/Sweden	Windstorm	17,637
Vesleofsen	1995	Norway	Flood	2,089
Verena	1993	Denmark/Sweden	Windstorm	573
Nyttårsstormen	1992	Norway	Windstorm	1,368

Norway was severely affected by flooding in 1995. Earthquake is not considered a significant peril in the Nordic region, though Iceland is exposed to earthquake as well as volcanic eruption and avalanche. Landslides occur but have caused only minor economic losses.

Insurance Availability

Traditionally, personal and commercial property policies are written on a named-peril basis. In general, policies cover natural exposures, but with the following country-specific features:

- In Sweden, flooding following a dam burst has the potential to be a severe catastrophic event. This exposure is now generally excluded from primary policies.
- Norway amended its insurance laws in 1980 to make direct damage and fire-following "nature perils" integral to the basic fire policy. With the compulsory addition of "nature perils" to the standard fire coverage, a flat rate is charged against insured values. This additional premium is placed into a separate pool. Losses of the pool are shared by the member companies, based on market share. The indemnity of the pool is limited to NOK10 billion per occurrence. The deductible for each loss is NOK8,000.
- Flood damage in Denmark is covered under a special program. On all Danish property policies, a contribution of DKK20 is automatically paid to a flood pool. The flood pool can declare "flood coverage available," and coverage can be obtained from the pool with a deductible of DKK10,000.

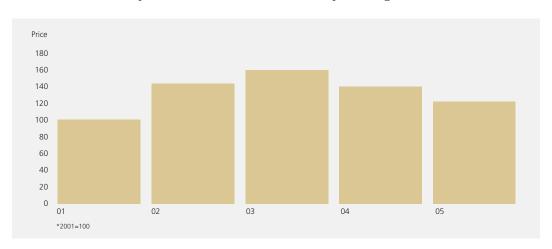
2005 Reinsurance Market Position

There was still plenty of capacity in the market for Nordic catastrophe reinsurance. In general, Nordic companies bought as much protection for 2005 as for the previous year. Insurance companies in the Nordic region tend to buy coverage up to approximately the 150-year return period.

In 2004 renewal prices went down by around 10 percent to 12 percent on Nordic catastrophe programs. In 2005 renewal prices continued to drop by another 12 percent.

The chart below shows the evolution of catastrophe prices in the Nordic region between 2001 and 2005. The series is presented as an index, with 2001 representing the base value of 100.

Nordic Region - Catastrophe Price Index*



Contributor(s): Nicolas Blixell

The Netherlands

Catastrophe Exposure

Despite its small size, the Netherlands has always been exposed to a number of catastrophe perils. These include windstorm, hail, earthquake (albeit to a lesser extent, and only in the southeast part of the country) and flood.

Windstorm is the most important catastrophe peril, especially since the exposure accumulates with other countries like the United Kingdom, France, Belgium and Denmark. Nevertheless, the Netherlands has not suffered any severe losses since windstorm Daria in January 1990. In October 2002 windstorm Jeannette turned out to be a minor event and affected the first layers of only a handful of Dutch catastrophe programs. The recent storms that hit Denmark and Sweden in January 2005 did not cause any damage in the Netherlands.

Following the dramatic flooding in 1953 (which killed more than 1,800 people in the provinces of Zeeland and Zuid-Holland), the Dutch Association of Insurers decided in 1956 to exclude flood from all Dutch property policies. Over the past five years, the Dutch insurance market has gradually accepted any losses caused by torrential rain as normal water damage and thus covered them under property policies. In some cases, Dutch insurers do endorse a so called "precipitation clause."

Earthquake has long been a standard exclusion. Incidental losses are normally compensated for by the national government or charity groups, and the last event was in 1992.

Hail is normally covered under property policies, as well as motor hull policies. Crop hail exposure, however, is covered by separate and more specialized policies.

Insurance Availability

The Dutch insurance market has been a very liberal and transparent market for centuries. An extensive range of life and non-life products is available and covers all lines of business, including numerous saving and pension products.

With a total population of 16.3 million as of May 2005, insurance penetration in the Netherlands has always been very high. Premiums related to non-life products totaled EUR21.6 billion and EUR24.3 billion for life and life-related policies, respectively, at the end of 2003.²

The standard deductible for property policies (e.g., buildings) equals two per thousand of the total sum insured. Based on Guy Carpenter studies, however, deductibles for residential risks seem to have dropped to approximately 1.6 to 1.8 per thousand, on average.

Due to the wide variety of insurance products, individual insurer portfolios can differ widely. Following the recent announcement of a merger between Achmea (the Dutch insurance branch of the Eureko Group) and Interpolis (the insurance arm of Rabobank), it is anticipated that the combined company will be the largest non-life insurer in the Netherlands. ING's Nationale-Nederlanden company is likely to remain the biggest life insurer.

2005 Reinsurance Market Position

Looking back on the 2005 renewal season for Dutch catastrophe programs, the following key factors are apparent:

- Continued overcapacity in the market for Dutch catastrophe business, with an increased interest from London-based reinsurers and some Bermuda players.
- Sustained pressure on price, with an average decrease of 5 percent to 10 percent in comparison to 2004 catastrophe prices.

² AM Jaarboek 2004.

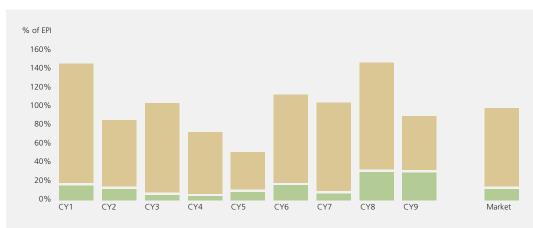
- Ongoing readiness of Dutch reinsurance buyers to change part of their reinsurance panel in order to obtain a more competitive price, provided the overall rating of the panel will not deteriorate.
- Increased willingness of Dutch ceding companies to increase the "safety level" of their catastrophe programs, from a 100-year return period to a 150-year return period. Some are even looking at safety levels beyond a 150-year return period.
- Catastrophe modeling software from EQE seems to be the yardstick for most of the Dutch reinsurance buyers, while most of the markets writing Dutch business apply the latest versions of RMS modeling products.
- Some Dutch ceding companies decide to buy additional cover on top of the regular programs by means of private deals with one or two selected reinsurers.

Based on Guy Carpenter's annual market study, Dutch ceding companies apply a wide variety of retentions and limits. Both are expressed as a percentage of estimated premium income, as well as a percentage of the 100-year loss expectancies as calculated by the leading catastrophe modeling firms. This is obviously a result of different strategies and goals.

Applying the latest releases of the leading catastrophe models, it appears that Dutch property insurers are still buying up to 90 percent to 130 percent of their respective 100-year loss expectancy, depending on which model is used (and bearing in mind the differences between portfolios). As mentioned, not all companies buy up to a 100-year level, but some buy up to 150-year or even 200-year loss expectancies.

The chart below provides an overview of catastrophe programs purchased by a number of leading Dutch insurers, as well as an extrapolated total for the market, indicating program retentions and capacities as a percent of the estimated premium income (EPI).





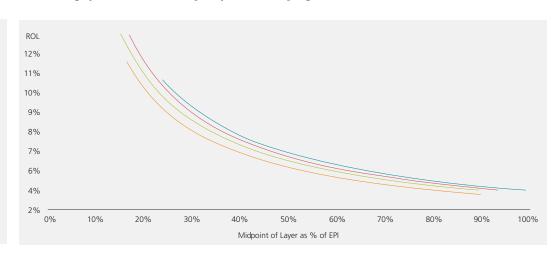
The chart below indicates the development of the market curve for ROLs in the Dutch market and clearly shows a sustained decrease over the past four years. Provided that no sizeable catastrophe losses occur during 2005, it is anticipated that the market curve will continue to soften, largely due to the overcapacity for Dutch programs.

Netherlands - Historical Market Trend 2002 - 2005

■ Trendline 2002 ■ Trendline 2003

Trendline 2004

Trendline 2005



Contributor(s): Michel C. DenBoer, Linda Phillips

Belgium: Catastrophe Exposure

55

Belgium

Catastrophe Exposure

While Belgium is exposed to a number of natural hazards, including windstorm, flood and, to a lesser extent, earthquake, there were no significant catastrophic losses in 2004. The last major windstorm was Daria, which occurred in 1990, and the last major flooding event took place in 1998.

Insurance Availability

The standard homeowners policy covers fire and allied perils, including windstorm, hail, snow and ice damage and winter freeze. Coverage for earthquake and flood was offered until 2005 by some companies on an automatic basis and by others subject to specific underwriting guidelines. Last year the mandatory deductible for homeowners policies was abolished, although the vast majority of policies keep a built-in deductible for all perils. In most cases, this deductible is indexed according to the Consumer Price Index. The windstorm deductible is EUR200.

Premium rates vary from 0.10 to 0.15 per thousand for storm and earthquake coverage, while rates are typically lower for flooding. There is evidence, however, that some companies are pursuing more aggressive pricing.

The law passed in 2003, making flood cover compulsory for homeowners policies and small commercial fire policies for risks situated in "risk zones," has been adapted following vigorous opposition from the Association of Belgian Insurers. This law was contested because it only applied to a limited number of insured persons living in flood-prone areas. The Belgian Parliament recently passed legislation rendering compulsory not only flood cover, but also earthquake cover for all homeowners and small commercial fire policies with a maximum non-mandatory deductible of EUR610. It is not clear when this law will come into force, but expectations are that it will be January 1, 2006.

2005 Reinsurance Market Position

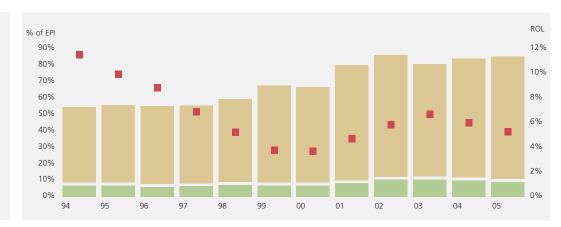
The 2005 renewal period was characterized by a continuing increase in the availability of Bermudian capacity and a continuation of the downward trend in pricing that started last year. Rates on line for 2005 catastrophe programs in Belgium decreased by 10 percent on average.

As in 2004, the retention ratio, which indicates retention as a percentage of estimated premium income (EPI), decreased for most companies, due to an upward movement in the denominator, mainly explained by the indexation of premiums. Most companies are buying now up to the 100-year event, however, this figure may vary depending on the catastrophe model used.

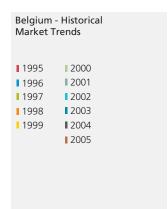
Studies conducted by Guy Carpenter indicate that loading factors used by the markets decreased once again compared to the last renewal.

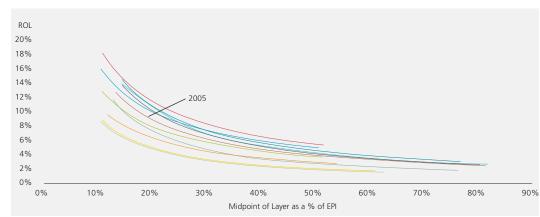
The chart below provides a historical overview of the cover purchased by the Belgian market as a percent of the EPI and the average ROL. Limit is up slightly in 2005, while rates are down for the second straight year.

Belgium - Historical Market Overview Limit and ROL Capacity Retention ROL

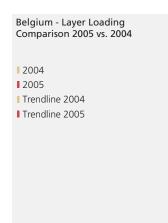


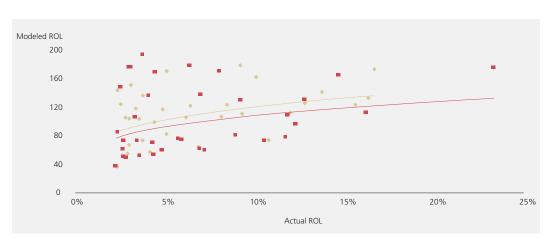
The chart below provides a historical overview of the market trends (catastrophe programs expressed as a percentage of EPI) for 1995 to 2005, taking into account changes in retentions and limits through the years. As the chart shows, the trendline for 2005 is slightly lower than 2004, indicating a further softening of the market.





The chart below indicates per layer the loadings charged by the markets on the rate on line as calculated according to modeled data. The chart indicates a further softening of the market, as the fitted line for 2005 shows lower loads than the line for 2004.





Contributor(s): Walter Bernaerts, Jean-Arnold Schoofs

Switzerland

Catastrophe Exposure

As the most mountainous country in Europe, Switzerland has a varied natural terrain that produces specific local exposures, such as thunderstorm, hail, avalanche and flooding of smaller local rivers. In addition, the country as a whole is exposed to windstorm, flood and earthquake.

Winter storm and flood are generally the exposures with the highest frequency, while a major earthquake has the greatest potential to impose a severe economic loss. The latest estimates calculate the worst-case scenario for economic loss from earthquake at approximately CHF80 billion in the region of the city of Basle, with about CHF45 billion of it stemming from buildings. The insured loss from such an event is estimated to be as high as CHF5 billion.

Hailstorms occur often in summer, mainly in areas close to the Alps. While these are normally local events, they can cause severe losses, most particularly in agriculture and damage to motor vehicles. A hailstorm in July 2004 over Zurich caused an overall insured loss of CHF140 million. Nevertheless, hailstorm losses are much smaller than losses from flood or earthquake.

Over the past 10 years, Switzerland has experienced six major floods and one major winter storm, Lothar, in 1999.

Insurance Availability

Switzerland is divided into 26 cantons. In 19 cantons, insurance for buildings is obligatory and provided by monopoly insurers. The canton monopoly insurers cover fire, lightning, explosion, aircraft (FLEXA) and elemental perils only. Elemental perils are defined by law and include storm, hail, flood, avalanche, snow pressure, snowslide, landslide, falling rocks and rockslide.

The private insurance industry covers contents all over Switzerland and buildings in the non-monopoly cantons. Personal lines insurance covers atmospheric perils and earthquake through additional premiums based on a standard policy.

While industrial risks are also mainly insured on a named-peril basis, the elemental perils extension (extended coverage) combines storm and the other elemental perils and is generally sold together with the standard fire policy. Elemental perils coverage for industrial risks, therefore, has a very high market penetration.

2005 Reinsurance Market Position

In 18 of the 19 monopoly cantons, earthquake is covered through a fund provided by the IRV, an "intercantonal" pool of monopoly insurers. The fund has a total capacity of CHF2 billion. The earthquake coverage provided by the monopoly insurers is voluntary and does not cost any additional premium. One monopoly insurer, Zurich Cantonal Institute, covers earthquake for buildings in the remaining canton, with a capacity of around CHF1 billion. Besides earthquake, the IRV covers its catastrophe exposure with a stop-loss up to a capacity of CHF550 million.

The private insurance industry pools its elemental perils exposure through the Swiss Insurance Association (SIA), protected by a stop-loss cover with a capacity of CHF1.2 billion. In addition, the SIA buys a small earthquake cover with a capacity of CHF200 million for ex gratia payments in case of a loss.

While demand for catastrophe modeling is increasing, few catastrophe models are available for Switzerland. The existence of the 19 monopoly insurers and the SIA's elemental perils pool makes Switzerland's requirements for such a service different from those of other European countries. Increasingly, Swiss insurers are considering the purchase of protections against 100+year events.

The rates for the reinsurance programs held by the IRV and the SIA remained relatively stable in 2005

Since 2002, the capacity of the elemental perils stop-loss cover of IRV has increased by 25 percent, with a premium increase of 15 percent. On the earthquake side, an increase in retention of 10 percent with stable capacity caused a premium decrease by 20 percent between 2002 and 2005.

The private insurance sector shows a similar picture: since 2002, SIA's elemental perils pool has increased priority and capacity of its stop-loss by 20 percent at a premium increase of about 8 percent. The earthquake cover rate remained stable.

Contributor(s): Hanspeter Hilfiker, Jan Störmann

Central and Eastern Europe

Catastrophe Exposure

Central and Eastern Europe represent a very large landmass in which natural catastrophes remain, for the most part, uninsured. However, in more developed regions, especially the urban and industrial areas of Poland and the Czech Republic, flooding has become a major issue for the insurance and reinsurance market. The growth of exposed sums insured is likely to increase substantially in these regions over the next 10 years following their accession to the European Union in May 2004. This is especially true for Poland.

Earthquake is not a significant exposure in the insured parts of this region, although the earthquake risk in Romania represents an increasing exposure as the sums insured continue to grow. Flood is the key concern in the region. Widespread floods in the Czech Republic and Poland in July 1997 had a severe economic impact, but the cost to the insurance and reinsurance markets was limited because of the low proportion of insured buildings and contents. The floods along the Vistula River in Poland in 2001, the economic cost of which was approximately 25 percent of the 1997 levels, had only a limited impact on the insurance and reinsurance market. In contrast, the insured proportion of the total economic loss from the Czech floods in July 2002 was much higher. Partly due to the significant insured damage to the Prague metro system, the total insured loss amounted to nearly USD1.3 billion – approximately 50 percent of the total economic loss to the Czech Republic. Over 95 percent of this sum was borne by the reinsurance market. Floods also hit southwest Romania in April 2005, causing widespread damage and major economic losses to the farming sector. However, insurance penetration is negligible in this sector and Romania as a whole; therefore no significant insurance losses were recorded.

The other main exposures in the region are flood and earthquake in Hungary and hail and earthquake in Slovenia. In the Balkans there is significant earthquake hazard, but insurance penetration is so low that this is not currently an issue. There is no catastrophe exposure acknowledged in Russia, due to very low insurance penetration.

Insurance Availability

In line with the coverage previously afforded to homeowners and commercial/industrial policies under the communist state-owned insurance schemes, flood is automatically included among the extended coverage perils that may be purchased in a property insurance policy, alongside the basic fire, lightning, explosion and aircraft (FLEXA) perils. For certain classes, such as agricultural buildings in Poland, building insurance (including flood cover) is obligatory, although not enforced.

Many risks remain uninsured across the region. A study in Poland found that flood protection is carried by only 8 percent to 20 percent of commercial risks and by only 12 percent of households on average, including 20 percent inside flood-exposed areas and 10 percent outside. Only 40 percent of agricultural buildings in Poland are insured, even though coverage is supposedly obligatory. Public sector, nonprofit entities and infrastructural risks in Poland are not insured.

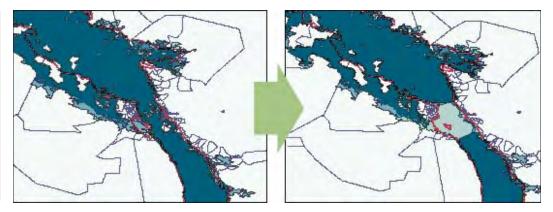
In the Czech Republic, penetration is higher, with approximately 40 percent of households purchasing flood insurance. Since the cover is voluntary, however, increasing anti-selection may be expected, and the highest risk areas are becoming uninsurable. In European terms, the Czech market is exceptionally advanced in its control of flood exposures. Throughout the market, individual risks are located at the street address level, and a seven-zone flood rating model is widely used by insurers for underwriting purposes. For cedents in the Czech Republic, flood aggregates have decreased significantly due to restrictions introduced by insurers following floods in 2002. There are generally no sublimits for flood for personal lines business. However, sublimits have been introduced for natural hazards for industrial and commercial lines. These restrictions have led to the decrease in insurers' aggregates from 2002 to 2005.

In Poland, flood poses the primary natural risk faced by insurers. No commercial catastrophe models for flood exposure are currently available for the Polish market, though there is a growing interest in developing a unified approach to flood modeling within the country. These efforts are being led by the Polish Chamber of Insurance (PIU).

For the 2005 renewal, Guy Carpenter has produced both a zonation/rating tool and a probabilistic model for the Odra River basin, the area that constitutes the biggest flood risk in Poland. Both models allow users to factor in the effects of flood defense systems, which is critical for a realistic assessment of PMLs. For example, our analysis of Opole has demonstrated that completion of the city's flood defense plan will protect the central urban area up to a flow rate of 2,750 cubic meters per second, equivalent to a 300-year return period. The effects are shown in the following GIS map.

The map compares flood zonation at Opole before and after factoring in the effect of the flood defense systems. Areas with a lower return period of inundation are shown in darker colors. The extent of the 1997 flood is shown in red, and postal codes susceptible to flooding are marked with purple boundaries.

Poland – Flood Zonation at Opole Before and After Factoring In Effect of Flood Defense Systems



The flood zonation model allows a user to determine the proportion of flood exposure, either for the entire river basin or within any given postal code, for a given return period of 20, 50, 100, 250 or 500 years.

The probabilistic model provides a further level of detail, allowing import of a client's total insured values according to risk type and five-digit postal code. A probabilistic set and GIS analysis are then used to obtain PML estimates for the portfolio for 20, 50, 100, 250 and 500 years, including the effects of flood defense failure. Vulnerability functions relate water depth to damage at particular points, and a built-environment model provides best estimates of risk types, such as property heights, in cases where only aggregate data can be provided.

An analysis carried out by Guy Carpenter, in conjunction with Poland's Institute of Meteorology and Water Management (IMGW), has shown that the windstorm exposure in Poland should not be underestimated. Winds with a return period of 100 years could reach speeds of 50 meters per second in the more affluent parts of Poland and thus would be capable of causing widespread damage and possibly fatalities.

There has been significant growth in the insurance industry in Romania in recent years – approximately 20 percent per year, on average. Earthquake is the main natural peril in this region, and most policies generally include earthquake coverage. Given the growth of the

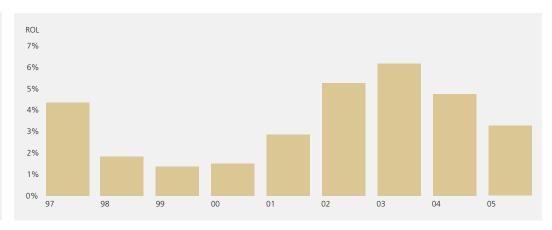
Romanian insurance industry, a more accurate monitoring of the country's earthquake risk is necessary. At the moment, insurers and reinsurers are involved in a variety of projects to develop earthquake models for Romania.

2005 Reinsurance Market Position

Catastrophe XL pricing in the Czech Republic increased significantly at January 2003 renewals following large flood losses in 2002. The amount of cover purchased also increased substantially because proportional treaties excluded natural perils and companies were obliged to protect these risks under their catastrophe programs. After a period of stability, prices decreased at both the January 2004 and the January 2005 renewals. The 2005 renewal season saw rate reductions of around 15 percent to 20 percent.

At the January 2005 renewals in Poland, prices for catastrophe programs decreased by about 10 percent to 20 percent from the previous year. This continued a downward pricing trend that had begun with the 2004 renewals, reversing the steady rise in catastrophe cover cost since the 2000 renewals. During that period, the largest price increase came during the 2002 renewals, in the aftermath of the Wisla River flood in July of 2001.

Poland - Average Program ROL

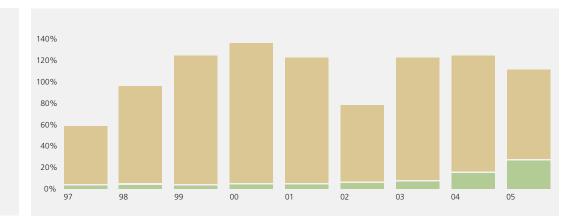


The following chart shows the increase in deductible and limit reduction in 2005, relative to the 1997 flood event.

Poland - Average Limit and Deductible as a Percentage of 1997 Largest Flood Event

Indexed on As-If Basis 504 Hour Clause.

Limit
Deductible



Currently, insurers in Romania buy programs representing 4 percent to 5.5 percent of their countrywide aggregates. As a result of recent growth, the larger insurance companies bought an additional 20 percent of cover this year to protect their increased earthquake aggregates. At the January 2005 renewals, rates decreased by 10 percent to 20 percent on the main catastrophe programs.

Contributor(s): Pawel Zmudzki, Elzbieta Mazaraki-Gawronska, Harry Hatfield, Mary Lyng, David Lewin, Jane Toothill

Portugal

Catastrophe Exposure

The major natural hazards affecting Portugal are earthquake, windstorm and flood.

Throughout the years, Portugal has experienced several earthquakes, ranging in seriousness from the earthquake in 1755 that destroyed Lisbon, to several lesser earthquakes in 1909, 1969, 1980 and 1983. Although some of these events resulted in serious damage, most produced little insurance loss.

Current assessments of the earthquake hazard range from low to average in Faro and are considered low in both Lisbon and Porto. In Lisbon, however, the accumulation of insured property raises concern over earthquake and fire-following. Based on a five-zone rating system, the country's highest premiums are assessed in the southern Algarve region, the lower sections of the River Tagus, the area northeast of Lisbon and the Azores islands.

Windstorm is not considered a significant peril, although local tornado events have occurred on a periodic basis. As a result, the purchase of windstorm coverage by insureds is low. Take-up levels have increased recently due to the automatic inclusion of windstorm in multirisk coverages.

Exposure to the flood peril is greatest in Lisbon, in areas close to the River Tagus and in the southern portion of the country. There have been several destructive flooding events in recent years. In 1983, flooding along the River Tagus resulted in losses of USD3.4 million. In early November 1997, a flood in the southern part of the country was estimated to cost USD5.7 million. At the end of 2000 and continuing into 2001, floods in central and northern regions of the country resulted in losses of USD14 million. In response to these events, insurers withdrew coverage from areas with high flood exposure, citing the need for government assistance to help manage the risk.

Insurance Availability

Coverage for earthquake and fire-following are not included in standard policies. Earthquake and fire-following combined coverage may be purchased as an optional additional peril. It is estimated that earthquake coverage is not provided for a large proportion of Portugal's risks. In the case of higher level risks, only about 15 percent of industrial fire policies provide earthquake coverage. Cover for the earthquake peril is generally included under multi-risk and engineering policies.

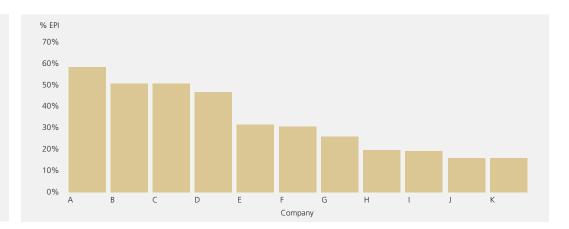
Windstorm coverage is provided through a multi-risk policy or an extension on the fire policy. In order to obtain compensation, the meteorological center where the insured is located must verify that the event met the definition of a windstorm, which means wind speeds in excess of 90km/hr.

Few standalone industrial policies include flood; however, multi-risk policies frequently provide coverage for the peril. To obtain flood compensation, the events must result from a sudden downpour or rainfall that surpasses 10 millimeters within 10 minutes, or from the bursting of dams or overflow of both natural and manmade waterways. Sea flooding and goods stored in the open are excluded from coverage.

2005 Reinsurance Market Position

Retentions vary between companies, ranging from a low of 15 percent to a high of 57 percent of earned premium income. Deductibles remained stable.

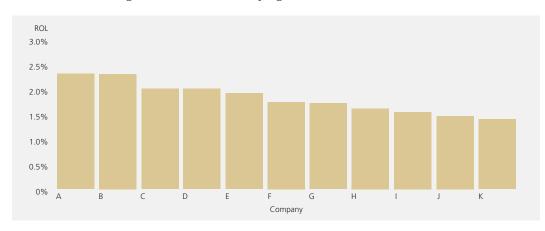




For rate on line comparisons, Guy Carpenter has analyzed pricing by layer based on the midpoint for TIV in CRESTA zones 1 and 2. These two zones make up over 50 percent of aggregate TIV in Portugal. While the chart below indicates the rates are up since 2001, the increases have been less drastic than those experienced in other markets.

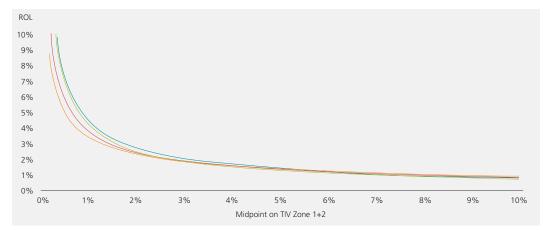
Rates on line differ from company to company, reflecting differences in their underlying exposures and in the design of their risk-transfer program.

Portugal - 2005 Comparative of ROL









Turkey

Catastrophe Exposure

The principal catastrophic peril facing Turkey is earthquake, centered on a fault line running east to west across the northern part of the country. Technically, the North Anatolian Fault is very similar to the San Andreas Fault in the United States. The land surfaces are similar, as is the frequency of earthquakes. The only other major catastrophe exposures in the country are localized storms and flooding.

CRESTA divides the country into 15 zones. Zones 1 and 3 are of the greatest interest to insurers and reinsurers, as they have both exposure to the fault line and substantial insured values. Of these two zones, zone 1 is the more significant and is often used as the adjustable base in reinsurance contracts.

The last major earthquake in Turkey struck Marmara and the surrounding region in 1999, resulting in over 39,000 deaths and property damage of USD7 billion, of which approximately USD1 billion was insured.

Insurance Availability

Earthquake coverage has been readily available in Turkey. Since 1993, it has been subject to a government-imposed tariff, which includes a provision for maximum coverage at 80 percent (i.e., 20 percent co-insurance) and a policy deductible calculated as a percentage of the sum insured. Generally, this deductible has been set at 5 percent, although in recent years there have been various options available from the insurance market ranging from 2 percent to 10 percent, with the appropriate differentiation in rating.

Following the 1999 earthquake, the Turkish government, with the cooperation of the World Bank, issued a law establishing a compulsory earthquake insurance scheme, administered by an entity known as the Turkish Catastrophe Insurance Pool (TCIP). The law requires coverage for private residences falling within the scope of the legislation. The pool provides coverage up to a fixed limit of earthquake cover on buildings for all registered habitations, excluding rural areas and unauthorized construction after December 27, 1999.

Although the draft law has yet to be passed into final legislation, a large number of people have already taken up the TCIP insurance policy, with approximately 2 million policies issued to date. TCIP is managed by Milli Reinsurance, with an initial mandate for five years. After August 2005, TCIP will be managed by Garanti Ins. Co., which submitted the winning proposal during the tender for the management of the pool. A substantial excess of loss reinsurance program is placed into the international market to support TCIP. Policies are retailed through the local insurance companies and agents, as authorized by the TCIP.

2005 Reinsurance Market

Turkish reinsurance pricing saw a substantial increase in the aftermath of the 1999 earthquake, although most reinsurers saw payback of their losses within a two-year period. Rate reductions in 2004 and 2005 were caused by competition for premium income and a consensus that the increase in rating by reinsurers had created an attractive margin. The TCIP reinsurance program, which renews November 1, is usually seen as a bellwether for rating at January 1, which this was certainly the case in the latest renewal season.

Contributor(s): Can Basar, Richard Morgan, Christopher Pleasant

Mexico: Catastrophe Exposure

Latin America and Caribbean

Mexico

Catastrophe Exposure

Mexico is exposed to a number of natural hazards, including windstorm, earthquake, volcanic eruption, and drought and flooding.

The country has an exceptionally high level of seismic activity and is estimated to experience tremors on a daily basis. The source of this widespread instability is the Cocos Plate, which moves slowly beneath the Caribbean Plate in the southern half of the country and interacts with the North American Plate in the north. One of the largest earthquakes in Mexican history devastated central Mexico on September 19, 1985, killing over 9,500 people in Mexico City. The magnitude 8.1 event was followed by aftershocks that lasted for hours. Economic losses totaled USD4 billion, and insured losses were USD400 million.

Mexico's vulnerability to windstorm is concentrated along its coastlines, due to hurricanes arising from the Caribbean Sea and the Pacific Ocean. The areas most affected by windstorms include the Gulf of Mexico and the Caribbean – in particular, the Yucatan Peninsula and the state of Tamaulipas, as well as areas north of Acapulco along the Pacific coast. Significant recent windstorms include Hurricane Pauline in October 1997, which caused USD40 million in insured damage, and Hurricane Gilbert in September 1988, which resulted in losses of USD150 million, many of which were uninsured.

Flood is usually associated with wind-driven rains and occurs primarily in the northern part of the country, as well as in the coastal areas that are affected by hurricanes. Floods along the Gulf coast in October 1999 impacted nine states and resulted in economic damage that exceeded USD234 million.

Insurance Availability

Coverage for the earthquake risk is available under simple-risks policies, under which earthquakes may be included or excluded. Rates for earthquake are set between 0.48 per thousand for the northern part of the country, where risk exposure is relatively low, and 0.90 per thousand for Mexico City, where the risk exposure is much greater. Deductibles are estimated to range from 2 percent to 5 percent, with co-insurance ranging between 10 percent and 30 percent. Earthquake may be added as part of extended coverage under industrial and commercial policies.

Most commercial policies offer coverage on an all-risk basis and provide coverage for both windstorm and flood. Insurers generally provide coverage through an increase of premiums and deductibles and rarely refuse coverage altogether. The premium for the hurricane risk is usually quoted as part of the overall rate, and deductibles usually represent between 1 percent and 2 percent of the insured value affected. In December 2004, all insurance companies in Mexico agreed to apply a specific tariff for all meteorological risks, including flood. In the past five years, flood has been the biggest cause of catastrophic claims in Mexico.

Although flood is included on an all-risk basis, coverage is contingent on the exclusion of growing crops, drains, foundations, underground installations and goods in basements. Rates for coverage are based on zoning as well as the area within the zone. Rates may be as high as 0.80 per thousand in the Yucatan Peninsula and as low as 0.20 per thousand in inland areas. The co-insurance clause is 20 percent. This policy is subject to reductions for underinsurance. The deductible is usually 1 percent of the insured amount affected by the loss.

2005 Reinsurance Market Position

The ROL in Mexico decreased by a range of 8 percent to 12 percent during 2005, mainly due to the soft market for excess of loss in Mexico and worldwide. The average ROL dropped to 2.7 percent but still remains considerably above the low of 1 percent reported in 1999. Rates vary for individual companies, depending in part on the level of PML that each insurance company

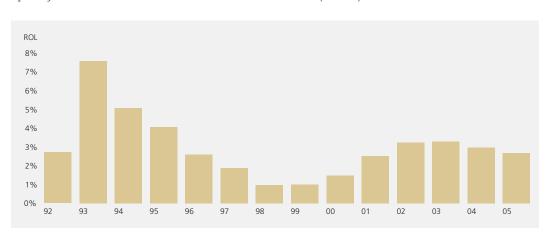
bought. Insurers currently are buying PML that ranges from 3 percent to 15 percent of the total earthquake aggregates in the main zone.

Terms and conditions for proportional treaties remain almost the same as 2004 but also depended on loss experience. In 2005 some insurance companies faced the need to retain a bigger share of their proportional treaties for catastrophic perils because of the hardness of the proportional markets in the region as opposed to the softness of the XL market. An important company in Mexico decided to change from a proportional to a nonproportional scheme, due to the hardness of the proportional markets and poor results in its pure fire portfolio.

During the 2005 renewal, a number of companies sought significant increases in capacity – almost USD420 million – representing a real opportunity for top reinsurers.

Another key issue in 2005 – and part of the reason some insurers are buying more limit – is the increased use of catastrophe modeling, particularly earthquake. More insurers are now measuring their catastrophe exposures with the support of RMS, EQECAT and ERN, a model developed by the Universidad Nacional Autónoma de México (UNAM).





Contributor(s): Alejandro Padilla

Chile: Catastrophe Exposure

Chile

Catastrophe Exposure

Chile is exposed to the major hazards of flood and earthquake, the latter being the country's primary exposure. The country's last major catastrophe was a magnitude 7.9 earthquake which hit northern Chile in June 2005, killing at least 11 people and injuring 200 more. According to the latest report from the Chilean Insurance Association, insurers have paid USD40 million in claims, which is still low compared with the USD141 million insured losses from the earthquake of 1985. Chile has also experienced several destructive floods over the years. The last major flood event occurred in June 2002, when storms caused severe damage and insured losses of USD34.4 million.

Insurance Availability

Earthquake cover is provided as part of the extended coverage issued in conjunction with the standard fire policy. Fire-following earthquake is also covered under the extended coverage. Buildings that do not meet the anti-seismic code receive no more than 75 percent coverage. The standard fire policy does not cover flood damage; however, coverage for flood damage is provided in the extended coverage section of the form. In addition, an increasing number of policies are being underwritten on an all-risk basis, which allows flood cover to be granted for a larger percentage of industrial and commercial risks. The rate for flood coverage is usually calculated in the overall global rate of a program but may be quoted separately at 5 percent of the fire rate. Deductibles are usually not applied to flood risk unless the risk is in a high-exposure area.

2005 Reinsurance Market Position

The majority of the programs in Chile renew on June 30. In 2005, pro rata contracts were renewed as expiring but with a further restriction regarding co-insurance. Excess of loss reinsurance costs decreased by approximately 5 percent to 10 percent, as in previous years, and some companies are looking at the possibility of changing from proportional to excess of loss. Although the facultative market continues to support a reduction in rates, global reinsurers do not participate or reduce their lines for programs when they feel that rates provided by domestic insurers are too low.

Terrorism continues to be covered under pro rata and catastrophe excess of loss treaties for homeowners, dwellings and some small commercial clients. Other clients are covered facultatively, with a total capacity of USD100 million per risk. Rates reached the minimum level of 0.1 per thousand, but there is currently a trend to increase this rate. Deductible levels remain very low.

Contributor(s): Hernan Irarrazaval

Peru

Catastrophe Exposure

Peru's main catastrophic exposure is earthquake. The earthquake risk in Peru is quite severe, as the country has a long history of seismic activity. Since its founding in 1535, Lima has been struck by 30 earthquakes with magnitudes of 5.5 or higher, including one earthquake in 1746 that virtually destroyed the city. The most recent major earthquake occurred in Arequipa on June 23, 2001, and had a magnitude of 6.9. Damage was estimated at USD150 million in the public sector and USD205 million in the private sector. The insured loss was estimated at USD70 million.

To a lesser extent, Peru is also exposed to the hazard of flood. During the seasonal rains from December through March, floods occur along the coast and landslides occur in some areas of the Andes Mountains. In general, however, seasonal flooding is not extensive enough to produce major losses, and its impact on the insurance industry would likely be minimal.

More serious floods have occurred as a result of El Niño. This exposure tends to dominate northwest Peru, though the entire country was affected during the 1982-1983 El Niño season and again during the 1997-1998 season.

Insurance Availability

The multi-risk and all-risk policies offer coverage for earthquake, volcanic eruption, flood, fire-following, windstorm, malicious damage and sabotage, riot and civil commotion (SRCC). Sabotage and terrorism are included but are usually restricted due to reinsurance market conditions and taken care of facultatively.

Most insurance companies have catastrophe excess of loss covers to protect their retained accounts. This year the Superintendency of Banking and Insurance (SBS) changed the catastrophe reinsurance requirement minimums for insurance companies from 7.5 percent to 6.1 percent of their net retained liabilities in the highest exposed zones, usually Lima and Callao. There are cession limits for earthquake under the treaties.

The Peruvian insurance market has increasingly consolidated changes in the last couple of years. The leading company in the market, Rimac Internacional, acquired Wiese Aetna in 2003 and the local operation of Royal & Sun Alliance in 2004. In the same year, Sul America was purchased by a Venezuelan financial group and changed its name to Latina Seguros, which in turn bought the portfolio of Generali Peru. At the moment Peru has only five general insurance companies: Rimac Internacional, Pacífico Peruano-Suiza, La Positiva, Latina Seguros and Mapfre Perú, the first two of which together control 63 percent of market share.

2005 Reinsurance Market Position

The two largest companies, Rimac Internacional and Pacífico Peruano-Suiza, work on an excess of loss treaty basis. These two companies account for 80 percent of all property premiums. These are the largest catastrophe XL treaties in Latin America.

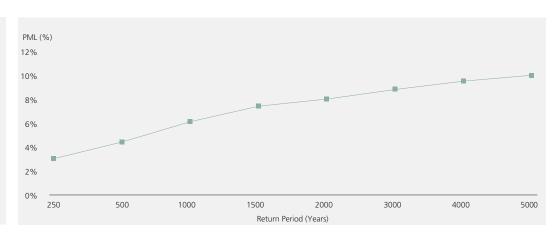
In Peru, the insurance commissioner initially required companies to maintain cover for a PML defined at a standard 10 percent of TIV in the main CRESTA zones of Lima and Callao. This percentage was reduced provisionally last term to 7.5 percent while a study to confirm the actual PML was concluded.

To aid in this effort, the insurance industry hired the Universidad Nacional Autónoma de México (UNAM), in conjunction with the Universidad Nacional de Ingeniería (UNI) and the Centro Peruano-Japonés de Investigaciones Sísmicas y Mitigación de Desastres (CISMID), to carry out a study of vulnerability and seismic risk in Lima and Callao. The researchers issued a report based on 42 districts within this main CRESTA zone. The study arrived at a new PML of 6.1 percent, which became part of this year's treaty requirements.

The 42 districts accounted for 9,778 policies, of which 6,446 (66 percent) were evaluated in the office and 5,402 (55.2 percent) were later re-evaluated in the field. The policies represent 5,805 buildings, since several policies were duplicates due to co-insurance.

Results from the analysis of the 42 districts are shown in the following chart.

Peru - PML Curve: Lima, Peru (42 Districts)



As the table below makes clear, the PML of 6.1 percent has a return period of more than 1,000 years. For the return period of 250 years, which is used by A.M. Best for earthquake exposure, the PML would drop to 3.0 percent, well below the current provisional standard of 6.1 percent.

PML AT VARIOUS RETURN PERIODS

PML (PERCENT)	RETURN PERIOD (YEARS)
3.0	250
4.4	500
6.1	1000
7.4	1500
8.0	2000
8.8	3000
9.5	4000
10.0	5000

Contributor(s): Argyros Philippides

Caribbean Region

Catastrophe Exposure

For the purposes of this report, the Caribbean Region is defined as those islands situated in the Caribbean Sea, from Trinidad and Tobago in the south to Cuba and the Bahamas in the north. These islands include Puerto Rico, Aruba, Barbados, Cayman Islands, Dominican Republic, Grenada, Haiti, Jamaica, Trinidad and Tobago, Virgin Islands and Bahamas.

The Caribbean has a high exposure to windstorm and is one of the most active hurricane regions in the world. The most significant windstorms recorded in the region are outlined in the table below.

MAJOR WINDSTORM ACTIVITY IN THE CARIBBEAN

DATE	EVENT	DATE	EVENT
1867	San Narciso	1995	Marilyn Luis
1899	San Ciriaco	1996	Hortense
1928	San Felipe II	1998	Georges
1932	San Ciprian	1999	Floyd Irene Lenny
1965	Betsy	2002	Lilly Isidore
1988	Gilbert	2003	Claudette
1989	Hugo	2004	Charley Frances Ivan Jeanne

Additionally, many islands are located in close proximity to earthquake fault lines. Although the frequency of earthquake activity in the Caribbean is low relative to that of other earthquake-exposed regions, seismologists have recorded events of significant scale. Other perils impacting the different islands include flooding, volcanic eruption and tsunami.

EARTHQUAKES IN THE

MAGNITUDE	NUMBER OF EVENTS SINCE 1900
8.0 or greater	2
7.0 to 7.9	3
6.0 to 6.9	8
5.0 to 5.9	3
4.0 to 4.9	4
TOTAL	20

The 2004 Windstorm Season and Its Impact

The 2004 windstorm season in the Caribbean was one of the region's most active and destructive on record. Four major hurricanes affected the region, and the total industry loss for the Caribbean exceeded USD3 billion. This loss was distributed among various islands, with the Cayman Islands, Bahamas, Dominican Republic, Puerto Rico and Grenada suffering the largest losses.



The table below indicates the dates of each loss and the islands affected:

MAJOR HURRICANE EVENTS IN 2004

EVENT	2004 DATE	ISLANDS AFFECTED	INDUSTRY LOSS
Charley	August 13	Jamaica, Cuba, Cayman Islands	USD2+ billion
Frances	September 5	Puerto Rico, Dominican Republic, Bahamas	USD500 million
Ivan	September 12	Cayman	USD2+ billion
Jeanne	September 25	Bahamas	USD500 million

While the destructive effects of the 2004 windstorm season have had a broad impact that is still being assessed, the three most important effects are the impact to capital of certain companies, the reaction of the reinsurance market and the focus on the cause of loss from the various events.

Several companies, particularly on the Cayman Islands and the Bahamas, had their capital impacted to the point that they needed to raise additional capital. The long-term impact should be a more disciplined market, as the newly injected capital will naturally seek adequate return on investment. Additionally, those companies that have not raised the necessary capital will be very sensitive to taking net losses, which may lead to increased dependence on reinsurance.

The second major consequence of the 2004 season has been a focus on the specific causes of loss. It is now clear that much of the insured loss resulted from storm surge and flooding, particularly in the Cayman Islands, Bahamas and Dominican Republic. As a result, several of the major catastrophe modeling companies will be updating their models to more accurately assess the loss exposure potential from storm surge and flood. Reinsurers are also taking a closer look at these loss drivers. In the future, they are likely to adjust their pricing to account for these risks and request more information on how cedents underwrite and control losses from these exposures.

Insurance Availability

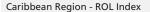
In general, property policies offer coverage for fire and allied perils, including windstorm and earthquake. Because each island is subject to local regulations and customs, different coverages are available on different islands. For example, in Puerto Rico flooding is generally excluded from coverage on residential and commercial property policies, while it is generally included on other islands. Following the 2004 season, insurers and reinsurers will likely focus on what coverages are provided, excluded or sublimited.

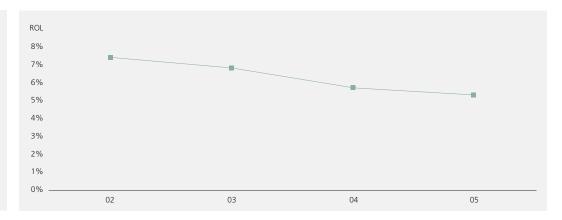
On many of the Caribbean islands, it can be very difficult to find coverage for certain risks. Coverage for beachfront exposures has been particularly difficult to secure. Business interruption loss coverage is also under pressure, depending on the location and occupancy of the risk. In both cases, local conditions and pricing may force some policyholders to reduce or forego coverage altogether.

2005 Reinsurance Market Position

The impact of the 2004 season on the reinsurance market depends on the island involved and the loss sustained. The Bahamas, Cayman Islands and Dominican Republic have seen a tightening of terms. While some reinsurers have decided to reduce or limit capacity on certain islands, other reinsurers have increased their support. In the Cayman Islands and Bahamas, for example, some reinsurers offer significant pro rata support, though with conditions that include minimum rate restrictions, event limits, minimum deductibles and, in some cases, tie-ins to excess of loss programs. In several cases, reinsurers offered pro rata support subject to receiving excess of loss shares at prices higher than might have been necessary otherwise.

While it is difficult to comment on pricing on each individual island, we have developed a Caribbean excess of loss index that projects the trend of pricing across the region. This index comprises the basic terms from a number of the most important programs in the region and is presented on an aggregate basis. The islands represented in this index include Puerto Rico, Cayman Islands, Virgin Islands, British Virgin Islands, Bahamas and Dominican Republic. The programs represented include those protecting exposures in personal, commercial and mixed lines.





Islands that did not suffer significant losses in 2004 have seen some softening of terms and conditions. In particular, in Puerto Rico there was a reduction in catastrophe excess of loss pricing of around 10 percent to 15 percent during the April 2005 renewals.

Excess of loss capacity remains abundant throughout the region. Pro rata cover is available, but there are only a limited number of markets actively selling such capacity. Facultative capacity appears to be on the increase, although it can be scarce or exorbitantly expensive for highly exposed risks.

The market's reliance on catastrophe modeling continues to increase, and many markets now use multiple models. Some are incorporating model output directly into their underwriting analysis on each individual submission. In many cases, this has led to changes in the underwriting profit and loss estimates that reinsurers have calculated on submissions. In addition, reinsurers have become more attentive to where they choose to apply their available capacity.

Contributor(s): David Encinas

Africa

South Africa

Catastrophe Exposure

South Africa is situated in the middle latitudes, between 22 ∞ S and 35 ∞ S, and experiences considerable climate variability. This is due to the position of the country with respect to cold and warm oceans, the amount of incoming solar radiation and the topography. Variability in the climate has also been accentuated by the occurrence of the El Niño-Southern Oscillation (ENSO) phenomenon, but is by no means dominated by it.

A coastal mountain belt encircles South Africa for about 200-300 kilometers and rises sharply in the eastern and southeastern parts to form escarpment areas. The central plateau reaches heights in excess of 2,000 meters in the central and northern parts of the country, declining to about 1,000 meters in the west. The interior or central areas are subject to thunderstorm, rainstorm and hail. In 1984, this region was hit by three major hailstorms, causing damage estimated at USD50 million.

Earth tremors are also very frequent as a result of extensive mining activity. In March 2005, a mining-induced quake of magnitude 5.3 shook the western part of Johannesburg and surrounding areas. South Africa's Council for Geoscience estimates that an earthquake of magnitude 5 will occur every two to three years in the area.

In the southwest, the series of almost parallel-fold mountains influences the climate and can create widely varying climates in closely proximous regions. The southwestern area of the country is prone to frequent windstorms and has a relatively high exposure to natural earthquakes. The area's last major earthquake was in Tulbagh in the Western Cape Province in 1969. It had a magnitude of 6.3, causing insured losses of approximately USD7 million and uninsured damage of about USD24.5 million. The area has seen extensive development since that time, and it is estimated that an earthquake of comparable magnitude would now result in insured losses of approximately USD1 billion.

The northeastern area of the country is generally affected by tropical cyclones moving into the Mozambique Channel from the Indian Ocean and by resulting floods. The storms generally occur between November and February. The two most severe cyclones to hit South Africa in recent times were Domoina in January 1984, which caused USD92 million in economic losses, and Eline in February 2000, which caused USD50 million in economic losses. Flood exposures in these areas of the country have yet to be fully mapped.

The South African Weather Service (SAWS) is bound by legislation to issue severe weather warnings to help protect life and property. The SAWS warnings cover a range of events, including heavy rainfall, extreme cold, strong winds, high sea swells and dry conditions that could lead to widespread bushfires.

The impact of adverse weather on South African agriculture and forestry can be enormous. Hail, heavy rain, windstorms, heat waves and freezing weather all have a large effect on day-to-day operations in most agricultural sectors. Runaway bushfires also present a constant danger in this area of the country, with the potential for major losses.

Insurers across the country continue to monitor catastrophe exposures according to CRESTA zones. The country is currently divided into 16 zones grouped according to the postal code system. Rising levels of urban development over the past 10 years have led to the parallel development of industrial and semi-industrial areas in closer proximity to residential areas. As cities expand and these areas merge, some CRESTA zones are becoming virtually indistinguishable in terms of their loss characteristics.

Insurance Availability

Lloyd's is registered in South Africa and provides significant competition to local insurers, especially in business lines such as casualty, professional indemnity, marine and aviation. Rates throughout South Africa rose significantly after the terrorist attacks of September 11, 2001, and the rates for the personal lines, motor and commercial industrial sectors are still sufficiently high that all insurance companies have enjoyed healthy underwriting profits for the last two years. Profits have also benefited from the lack of any major natural catastrophe in recent years. The last significant events were the floods in January and February of 2000, which only breached the first layers of most company programs.

The South African reinsurance industry is represented by Munich Re, Swiss Re, Hannover Re, GenRe and Africa Re, all of which have offices locally and supply the bulk of the prorata capacity.

Personal property insurance is covered under multi-peril policies on a monthly basis. It covers losses arising from fire, lightning, explosion, storm, flood, earthquake, theft and impact. Subsidence, heave and landslip are excluded as standard practice but may be added for an additional premium charge.

For commercial risks, fire policies are extended to include cover for natural perils. Policies are issued according to a Multimark III policy wording, which is a market-accepted standard wording for all general commercial classes of business. Fire-following earthquake is covered but is often separately specified. There are usually no deductibles other than composite deductibles under all-risk policies. Mining covers are subject to more stringent terms, and the Multimark III wording excludes damage to property in the underground operations of any mine.

Motor policies cover own damage, third-party property damage and third-party bodily injury. The Road Accident Fund operated by the government was established to compensate for bodily injury claims as a result of motor vehicle and road accidents. The program is funded by a levy on gasoline sales.

The marine and aviation market is very competitive on price, and reinsurance tends to be placed predominantly in London and Europe.

Workers compensation insurance is regulated by the Compensation of Occupational Injury and Diseases Act, 1993 (COID). This insurance is obligatory and is run by the state and two authorized insurers.

The South African Special Risks Insurance Association (SASRIA), the government-backed niche insurer, was established in February 1979 in response to the 1976 Soweto riots. Because of the riots, conventional insurers became unwilling and unable to insure against major incidents of public disorder, including political and nonpolitical riots, labor disturbances, civil commotions, strikes and lockouts. The government, in return for a special dividend of ZAR3 billion, provided a ZAR1 billion guarantee to be accessed only if SASRIA suffers an extreme loss. The government, however, is currently reassessing the potential for privatizing SASRIA and exiting the special-risks insurance market.

2005 Reinsurance Market

Most insurance companies continue to have proportional treaties and excess of loss covers, and these are largely placed through domestic reinsurance brokers. In 2005, terms available to the South African industry from the international market appeared to soften slightly, and the proportion of reinsurance placed abroad is believed to have increased considerably in 2005. The

number of captive companies continues to increase, as the market has not softened sufficiently to slow down the growth in this area.

Insurers are still faced with the problem of insufficient treaty capacity. This has led to an increase in the demand for facultative covers, resulting in very profitable portfolios of facultative business.

There is still a substantial amount of co-insurance being placed in the market, and often three or four major companies appear on the schedule. This still poses accumulation problems for reinsurers in the event of a major loss, but there are no restrictions on co-insurance being ceded to treaties on the normal basis. Certain reinsurers, however, restrict the amount of inward facultative reinsurance business going into proportional treaties. There are no reinsurance pools.

Flat commissions on proportional business have been replaced by sliding-scale commissions. At the bottom end of the scale, the commission rate often falls below acquisition costs. On property, business insurers pay a regulated 20 percent to the retail/direct broker, and frequently the bottom end of the scale falls as low as 15 percent. Reinsurers have also enforced event limits on proportional covers, thereby restricting the unlimited lateral cover afforded in the past.

South African catastrophe covers are still attractive to international reinsurers, as they help to diversify portfolios. The local reinsurers continue to write fairly proportionally across the catastrophe layers, while the London and European markets tend to offer more competitive pricing and more capacity on the upper layers. One possible reason for this is that the majority of insurance companies still opt for relatively low attachment points for catastrophe purposes and often do not buy sufficient cover at the top end. As a result, the average rate on line for South African programs is higher than the global average.

We continue to see reinsurance programs being placed on a combined-risk, estimated maximum loss error and catastrophe excess of loss basis.

The absence of any major catastrophes in recent years means that South African catastrophe business continues to be highly profitable for reinsurers.

Contributor(s): Sean Fitzsimmons

Namibia

Catastrophe Exposure

Namibia has experienced very few losses from major natural hazards. There have been no significant earthquakes in the country, even though Windhoek, Namibia's capital, lies on a small fault. Windstorms, other than the occasional whirlwind, are rare. While flash floods occur in the rainy season, and did so in February and March 2000 and more recently in March 2004, these are not a major concern as the resulting losses have been small. Hail is a rare occurrence in Namibia. Along the west coast around Walvis Bay and Swakopmund, no hail has been recorded for the last 100 years. In Windhoek, hail does fall between October and May, but no major property damage has been recorded. An earthquake in the Atlantic could potentially result in damage by tsunamis.

Insurance Availability

The short-term (non-life) written premium for 2004 was approximately NMD700 million. There are a total of nine short-term insurers in the Namibian market, along with one reinsurer, NamibRe. Though insurance in Namibia is being forced to localize as a result of the Insurance Bill of 1998, a few insurers still function as subsidiaries of South African companies.

There are no compulsory classes of insurance. Motor third-party bodily injury liability insurance is run by a government fund and paid for by means of a levy on gasoline sales.

There are no obligatory tariffs for any class of business, resulting in fierce competition.

The market is firmly driven by brokers. Apart from agents, there are few other forms of insurance product distribution.

Cover for political riot is provided by the National Special Risks Insurance Association (NASRIA) which operates as a nonprofit organization along similar lines to SASRIA in South Africa.

Under current legislation, insurance placed outside the borders of Namibia is not permitted unless cover is not available in the local market. In practice, there are many such risks, principally in the areas of marine, aviation and professional indemnity lines, which are sent to the Director of Financial Institutions for approval or declination. Approved cases of nonadmitted insurance are widespread in view of the lack of local capacity or technical expertise.

2005 Reinsurance Market Position

The gross capacity of the market is small. Net capacity is also low, in view of the large amounts of reinsurance placed abroad with parent companies or professional reinsurers.

Reinsurers who are not domiciled in Namibia do not have to be registered in order to participate in reinsurance of Namibian risks. However, companies cannot place reinsurance beyond Namibia's borders without the express permission of the Registrar of Insurance.

With the National Reinsurance Bill passed in 1998, the state showed its intention to nationalize part of the insurance industry. An agreement was reached whereby, as of the next renewal date, 20 percent of all reinsurance treaties would be offered to NamibRe, which would also have the right of first refusal on all facultative reinsurance.

There is still widespread use of proportional treaties. However, Namibian treaties have event limits restricting the unlimited lateral cover afforded in the past.

Rates for catastrophe programs have generally been constant due to the lack of major events. There have, however, been increases in recent years due to global pressure on catastrophe rates. In 2005, catastrophe excess of loss rates were flat compared to 2004.

Contributor(s): Renate Scriba

The Last Word

Looking back on 2005 with an eye to next year's renewals, we see a continuation of the trends begun in 2004. Rates on line continued to decline in 2005 with the softening market, although to a lesser degree than the decline in 2004. It is anticipated that the renewals for 2006 will most likely face the same soft but disciplined market.

From Florida to Sri Lanka to Japan, one trend stands out – the increase in natural peril catastrophe losses. As shown in the "Global Insured Catastrophe Losses" chart on page 4, losses reached a record level in 2004. The growing catastrophe losses worldwide are driven primarily by rising populations in highly exposed regions and by construction costs that continue to outpace inflation. The threat of drastic climate changes and severe weather conditions only adds to the likelihood of a continued rise in catastrophe losses. Whether such changes are due to global warming or to natural weather cycles, we may be forced to deal with this phenomenon for years to come.

The insurance and reinsurance industries are playing their parts. Higher costs and reduced capacity in exposed areas are alerting society to the underlying problems of rising catastrophe losses. We can report the symptoms; society and its elected representatives must devise the prescription.

Appendix A

Government Catastrophe Programs for Natural Hazards Government plays a prominent role in many areas of disaster management. In addition to disaster relief and mitigation issues (e.g., updated building codes), some governments have specific insurance programs in place for funding losses from natural catastrophes. Government catastrophe programs are reviewed in the country-specific sections of this report. It is helpful, however, to review the programs based on a common list of criteria, ranging from perils covered to coverage triggers. The tables on the following pages review major catastrophe programs in this fashion. A review of the information indicates that the various programs differ widely under most of the categories. Government programs reflect the underlying exposures and the social milieu of each country, which in turn show a wide variety across the globe.

GOVERNMENT CATASTROPHE PROGRAMS FOR NATURAL HAZARDS

USA NATIONAL FLOOD INSURANCE PROGRAM NIP General Information Veer Created 1968 1968 1966, as a consequence of the Northridge earth cable Earth Covered Perith Covered Perith Covered Perith Covered Primary Prim			
Perils Covered 1988 1996, as a consequence of the Northridge earthquake		NATIONAL FLOOD INSURANCE PROGRAM	CALIFORNIA EARTHQUAKE AUTHORITY
Perils Covered Damage caused by water (fiver flooding, erosion, and/or subsidience caused by flooding), any necessary cleaning up of property Primary Pri	General Information		
Caused by flooding), any necessary cleaning up of property Primary Primary Primary	Year Created	1968	1996, as a consequence of the Northridge earthquake
Purchase of Reinsurance from the Fund by Primary Carriers Mitigation In order to benefit from the NFIP, communities must be qualified: risk has to be assessed, area has to be mapped and risk control measures have be deeigned Operation of the Fund Umits Maximum cover for residential building/rontents: US\$250,000100,000; non-residential: US\$500,000500,000 Retention/Deductibles Deductible around \$500 15% of limit, deductible on home and contents applied to the total on separately for each coverage Rates Range from US\$0.8 to US\$5.00 per US\$100 of coverage. Rate varies depending on elevation, date of construction and flood zone. Punding Funding Funding Fund Buildup NA NA No Standby Funding NA NA No Contributors and Accruals Tax Deductible NA NA No Contributors and Accruals Tax Deductible NA NA No Contributors and Accruals Tax Deductible Limitations Find Buildup No Food losses Flood losses All earthquale losses	Perils Covered		
from the Fund by Primary Carriers In order to benefit from the NFIP communities must be qualified: risk has to be assessed, area has to be mapped and risk control measures have to be designed Deparation of the Fund Limits Maximum cover for residential buildings/contents: US\$250,000/100,000, non-residential: US\$500,000/500,000 Betention/Deductibles Deductible around \$500 Deductible around \$500 In 15% of limit, deductible on home and contents applied to the total in not separately for each coverage limited to US\$3.91 per depending on elevation, date of construction and flood zone. Average rate in California for earthquake coverage is US\$3.91 per disusand, capped at US\$5.25 per thousand Funding Government Funding Yes No Standby Funding N/A Yes Standby Funding N/A No Contributors and Accruals Tax Deductible N/A No Contributors and Accruals Tax Deductible N/A No Contributors Cap Amount None Finded busses All earthquake losses	Primary/Reinsurance	Primary	Primary
has to be assessed, area has to be mapped and risk control measures have to be designed Operation of the Fund Limits Maximum cover for residential buildings/contents: US\$250,000/100,000; non-residential: US\$500,000/500,000 Retention/Deductibles Deductible around \$500 Deductible around \$500 15% of limit, deductible on home and contents applied to the total long to separately for each coverage invited to US\$5,000 Rates Range from US\$,08 to US\$5,00 per US\$100 of coverage. Rate varies depending on elevation, date of construction and flood zone. Average rate in California for earthquake coverage is US\$3.91 per thousand, capped at US\$5.25 per thousand Funding Government Funding Yes No Standby Funding N/A No Contributors and Accruals Tax Deductible N/A No Contributors and Accruals Tax Deductible Limitations Triggers Flood losses Flood losses Flood losses All earthquake losses	from the Fund by	N/A	N/A
Limits Maximum cover for residential buildings/contents: U\$\$250,000/100,000; non-residential: U\$\$500,000/500,000 Retention/Deductibles Deductible around \$500 15% of limit, deductible on home and contents applied to the total for not separately for each coverage Rates Range from U\$\$,08 to U\$\$5.00 per U\$\$100 of coverage. Rate varies depending on elevation, date of construction and flood zone. Average rate in California for earthquake coverage is U\$\$3.91 per thousand, capped at U\$\$5.25 per thousand Funding Government Funding Yes No Standby Funding NA Ves Standby Funding NA No Contributors and Accruals Tax Deductible NA Ves Limitations Triggers Flood losses Flood losses All earthquake losses	Mitigation	has to be assessed, area has to be mapped and risk control measures	No
Retention/Deductibles Deductible around \$500 Retention/Deductibles Deductible around \$500 15% of limit, deductible on home and contents applied to the total lond separately for each coverage Rates Range from U\$\$.08 to U\$\$5.00 per U\$\$100 of coverage. Rate varies depending on elevation, date of construction and flood zone. Average rate in California for earthquake coverage is U\$\$3.91 per thousand, capped at U\$\$5.25 per thousand Funding Government Funding Yes No Standby Funding N/A No Contributors and Accruals Tax Deductible Limitations Cap Amount None Flood losses Flood losses All earthquake losses	Operation of the Fund		
Rates Range from US\$.08 to US\$5.00 per US\$100 of coverage. Rate varies depending on elevation, date of construction and flood zone. Funding Government Funding Yes No Fund Buildup N/A Yes Standby Funding N/A No Contributors and Accruals Tax Deductible N/A Yes Limitations Cap Amount None US\$6.725 billion Rates Range from US\$.08 to US\$5.00 per US\$100 of coverage. Rate varies depending on elevation, date of construction and flood zone. Average rate in California for earthquake coverage is US\$3.91 per thousand, capped at US\$5.25 per thousand No No US\$6.725 billion All earthquake losses	Limits		
depending on elevation, date of construction and flood zone. Funding Government Funding Yes No Fund Buildup N/A Yes Standby Funding Contributors and Accruals Tax Deductible Limitations Cap Amount None Hood losses Flood losses All earthquake losses	Retention/Deductibles	Deductible around \$500	15% of limit, deductible on home and contents applied to the total loss, not separately for each coverage
Government Funding Fund Buildup N/A Yes Standby Funding N/A Contributors and Accruals Tax Deductible Limitations Cap Amount None US\$6.725 billion Triggers Flood losses All earthquake losses	Rates		
Fund Buildup N/A Standby Funding N/A Contributors and Accruals Tax Deductible N/A Limitations Cap Amount None US\$6.725 billion Triggers Flood losses All earthquake losses	Funding		
Standby Funding N/A No Contributors and Accruals Tax Deductible Limitations Cap Amount None US\$6.725 billion Triggers Flood losses All earthquake losses	Government Funding	Yes	No
Contributors and Accruals Tax Deductible Limitations Cap Amount None US\$6.725 billion Triggers Flood losses All earthquake losses	Fund Buildup	N/A	Yes
Tax Deductible Limitations Cap Amount None US\$6.725 billion Triggers Flood losses All earthquake losses	Standby Funding	N/A	No
Cap Amount None US\$6.725 billion Triggers Flood losses All earthquake losses		N/A	Yes
Triggers Flood losses All earthquake losses	Limitations		
	Cap Amount	None	U\$\$6.725 billion
Second Event Coverage Yes Yes, annual aggregate	Triggers	Flood losses	All earthquake losses
	Second Event Coverage	Yes	Yes, annual aggregate

	USA FLORIDA HURRICANE CATASTROPHE FUND FHCF	FRANCE CATASTROPHES NATURELLES
General Information		
Year Created	1993 as a consequence of Hurricane Andrew	1982, as a consequence of floods that occurred at the end of 1981 in the south of France
Perils Covered	Peril of windstorm during a hurricane - residential structures	No named perils. Mandatory insurance guarantee (with specific premium) attached to property insurance contracts covering insured against direct damages (plus loss of profit) resulting from the "abnormal intensity of a natural agent." Mainly concerned with flood, earthquake, land-slide/mudslide and subsidence. Since 2000 extended to extra-cyclonic winds where maximal recorded surface speed is above an average of 145 km/hour during 10 minutes or 215 km/hour in gusts.
Primary/Reinsurance	Reinsurance	Primary, with the possibility for the Caisse Central de Reinssurance (CCR) to sell unlimited reinsurance covers guaranteed by the state
Purchase of Reinsurance from the Fund by Primary Carriers	Mandatory	Reinsurance provided by CCR
Mitigation	Limited funding for mitigation studies	Yes, through PPR (Plan de Prevention des Risques) and an increase of the deductible for areas hit several times by the same peril
Operation of the Fund		
Limits	No direct impact on primary insurance limits	Primary side: Limits and exclusions of the property insurance contract Reinsurance side: Unlimited coverage (state guarantee)
Retention/Deductibles	Retention is 6.2876 times FHCF premium. Limit adjustable, US\$4.5 billion in 2005 for first and second event, US\$1.5 billion for subsequent events (for entire industry).	Deductible with simple risks: EUR380; except for subsidence EUR1520, with industrial risks; 10% of the building/contents loss, at least EUR1140, except for subsidence EUR3050, and for loss of profit higher of 3 working days or EUR1140
Rates	Premium based on portfolio: location, construction type, value, policy type and deductible	12% of entire property damage premium
Funding		
Government Funding	No	No, but State guarantees CCR for reinsurance provided under the scheme
Fund Buildup	US\$2.93 billion projected for year-end 2005	No
Standby Funding	Yes	No
Contributors and Accruals Tax Deductible	Yes	Insurance premium treatment
Limitations		
Cap Amount	Adjustable: In 2005, US\$15 billion, First Season US\$15 billion, Second Season Total Capacity at US\$ 42.67 billion	No
Triggers	Only a hurricane declared by the National Hurricane Center can be dealt with by the FHCF	The State decides whether an event falls within the scope of a "natural disaster"
Second Event Coverage	Yes, annual aggregate. Second season added in 1999	Yes

	ICELAND ICELANDIC CATASTROPHE FUND	JAPAN JAPANESE EARTHQUAKE REINSURANCE COMPANY (JER)
General Information		
Year Created	1975, according to the Iceland Catastrophe Insurance Act	1966
Perils Covered	All property and contents insured against fire are automatically insured against direct losses resulting from earthquakes, volcanic eruptions, snow avalanches, landslides and floods.	Earthquake, tsunami, and volcanic damage to residential properties
Primary/Reinsurance	Primary	Reinsurance
Purchase of Reinsurance from the Fund by Primary Carriers	No	Mandatory
Mitigation	No	No
Operation of the Fund		
Limits	Limit according to individual fire policy but if capacity is exceeded then settlements could be prorated	When capacity exhausted, settlements with policyholders prorated
Retention/Deductibles	For Personal Property 5% retained subject to a minimum retention of ISK 40,000 indexed in accordance with the Building Index. Bridges, hot water installations, sewer installations, harbor installations, electrical installations, including distributions and dams, telegraphic installations including radio, T.V. and aircraft communications, 5% retained subject to a minimum retention of ISK 400,000 indexed in accordance with the Building Index.	High levels of co-insurance required from policyholders
Rates	0.25 per thousand for personal and commercial property. 0.20 per thousand for bridges, geothermic hot water installations, sewer installations, including distributors, publicly owned infrastructures (providing that the institutions concerned have subscribed to the Catastrophe Insurance Protection).	0.5 per thousand to 3.55 per thousand, depending on location and construction type
Funding		
Government Funding	No	Partially, the JER is protected by an excess of loss retro program on which the major underwriter is the Japanese government
Fund Buildup	Yes	No
Standby Funding	No	No
Contributors and Accruals Tax Deductible	Yes	N/A
Limitations		
Cap Amount	The fund liability is limited to 1% of total insured amounts. Should the total claim exceed 1% of the insured amounts the claims of all insureds are to be proportionately reduced.	¥5,000 billion
Triggers	Covered event	Covered event
Second Event Coverage	Yes	Yes, annual aggregate

	NEW ZEALAND EARTHQUAKE COMMISSION EQC	NORWAY NORSK NATURSKADEPOOL
General Information		
Year Created	1994 to replace the Earthquake and War Damage Commission of 1944	1980
Perils Covered	Earthquake, tsunami, landslide, volcanic eruption and geothermal activity for personal property	Damages caused by floods, storms, earthquakes, avalanches, volcanic eruptions, and tidal waves to personal and commercial property.
Primary/Reinsurance	Primary	Reinsurance
Purchase of Reinsurance from the Fund by Primary Carriers	N/A	Cover for natural perils compulsory in property policies
Mitigation	Awareness campaigns and strict code enforcement	No
Operation of the Fund		
Limits	Buildings: NZ\$100,000 Contents: NZ\$20,000	Occurrence limit per disaster: NOK10.0 billion
Retention/Deductibles	1% of the loss, minimum deductible of NZ\$200	NOK4,000 per insured
Rates	5 cents (+GST) for every NZ\$100 insured. The most you can pay including GST is NZ\$67.50	Flat rate on insured values
Funding		
Government Funding	No	No
Fund Buildup	NZ\$4.32 billion (6/30/03)	Yes
Standby Funding	Yes	No
Contributors and Accruals Tax Deductible	N/A	No
Limitations		
Cap Amount	No	No
Triggers	Covered event	Covered event
Second Event Coverage	Yes	Yes

	SPAIN CONSORCIO DE COMPENSACION DE SEGUROS	SWITZERLAND ELEMENTARSCHADENPOOL
General Information		
Year Created	1954, as an extension to the "Consorcio de Compensacion de Motin," which covered war damages	1939
Perils Covered	Occurrence must be "abnormal" in terms of number of victims and geographical scope. Covers business interruption, direct damage to personal and commercial property as a result of earthquakes, tidal waves, floods, volcanic eruptions, and cyclonic storms, acts of terrorism, rebellion, insurrection, riots and civil commotion, and acts or actions of the armed forces in times of peace.	Flooding, storm, hail, avalanche, snow pressure, landslide, rockfall, snowslide, and earthslip.
Primary/Reinsurance	Primary	Primary
Purchase of Reinsurance from the Fund by Primary Carriers	No	No
Mitigation	No	No
Operation of the Fund		
Limits	Unlimited coverage (state guarantee)	CHF25 million (US\$16.5 million) each for buildings and contents on a per insured basis, and CHF250 million (US\$165.5 million) each for buildings and contents on a market basis.
Retention/Deductibles	The deductible is usually fixed at 10% of the claim with a maximum of 1% of the sum insured and a minimum of €150.25	15% of the claim per building, minimum CHF5,000 (US\$3,311)
Rates	0.09% for homeowners and 0.025% for industrial risks	0.045% for buildings 0.02% for household contents 0.03% for other contents
Funding		
Government Funding	No	No
Fund Buildup	No	No
Standby Funding	No	No
Contributors and Accruals Tax Deductible	Yes	N/A
Limitations		
Cap Amount	No	No
Triggers	Covered event	Covered event
Second Event Coverage	Yes	Yes

	TAIWAN TAIWAN RESIDENTIAL EARTHQUAKE INSURANCE POOL TREIP	TURKEY TURKEY CATASTROPHE INSURANCE POOL TCIP
General Information		
Year Created	2002	2000
Perils Covered	Earthquake	Earthquake
Primary/Reinsurance	Primary	Primary basic structural cover
Purchase of Reinsurance from the Fund by Primary Carriers	N/A	N/A
Mitigation	No	Yes
Operation of the Fund		
Limits	Payout per policy of NT\$1.2 million + NT\$180,000 for contingent living expenses	YTL85,000 per policy
Retention/ Deductibles	No deductible	2% by insured
Rates	NT\$1,459 per policy, flat rate	By region (five zones) and construction (three types)
Funding		
Government Funding	Yes	No
Fund Buildup	Yes	Yes
Standby Funding	Yes	Yes, by World Bank
Contributors and Accruals Tax Deductible	N/A	N/A
Limitations		
Cap Amount	NT\$50 billion, pro rata after	No
Triggers	Cover responds only to a constructive total loss. Payment is provided when the damage ratio exceeds 50%.	All earthquake losses
Second Event Coverage	Yes	Yes

Appendix B

Global Terror Insurance Market Survey

The terrorist attacks on September 11, 2001, prompted major changes in how the world views terror cover. Since then, events in Bali, Turkey, Madrid and, most recently, London have served as a reminder that terrorism is a real and persistent threat. Can insurance and reinsurance companies cover losses of a similar future event? Questions have also arisen as to whether governments would be or should be involved in mitigating the risk exposure of insurance and reinsurance companies. Immediately after September 11, 2001, insurance and reinsurance companies around the world moved to exclude terror from their contracts. Since then, both insurers and reinsurers have modified their positions. In addition, numerous countries have developed specific pools for the terror risk. Given the wide variation in response to terror cover by insurance providers, Guy Carpenter developed a survey on the global terror insurance market. Information was obtained from Guy Carpenter and Marsh local offices from around the world. The information in this survey reflects the most recent market information.

NORTH AMERICA

Primary Insurance	Reinsurance	Comments
CANADA		
Exclusions applied by majority of insurers on personal and commercial policies. A question exists as to whether fire-following coverage is mandated by Provincial Insurance Acts.	Exclusions applied in 2002 renewals. Cover provided by some reinsurers for habitational, rural and nontarget risks.	No action by federal government.
UNITED STATES OF AMERICA		
Personal lines and workers compensation includes cover.	Prior to the passage of the Terrorism Risk Insurance Act of 2002, there were wide-spread exclusions on treaties for the terror peril.	The Terrorism Risk Insurance Act of 2002 (TRIA) was passed on November 26, 2002. The program was designed to provide insurers with a federal back-stop and will expire at the end of 2005. The U.S. Treasury will provide interim reports as the details about the bill and its implementation are worked out. The bill provides reinsurance to insurers for an act of foreign terror committed in the U.S. The terror bill covers 90 percent of insurance losses to insurers once the deductible is reached, up to an annual program limit of \$100 billion. See previous reports for full description of TRIA. Expiration of TRIA TRIA expires at the end of 2005. On June 30, the United States Treasury issued a report on TRIA mandated by the law. Treasury concluded that TRIA achieved its goals of stabilizing the private insurance market. Going forward, Treasury opposes the extension of TRIA. The report states that the administration would accept a renewal if major changes were made, including increasing the definition of an event from US\$5 million to US\$500 million, increasing deductibles and co-participation rates, and eliminating liability lines such as commercial auto and general liability. The debate on terror insurance now shifts to Congress.

EUROPE

Primary Insurance	Reinsurance	Comments
AUSTRIA		
The Terrorpool Austria started operating as of January 1, 2003. The Terrorpool Austria is not a juridical person and is created for an indefinite period with capacity from Austrian insurance companies. The insurer indemnifies any kind of damages, losses, costs or expenses which are subject-matter of the insurance contract and which are directly or indirectly caused by, result from or are connected with any act of terrorism. Insurance coverage does also include any kind of damages, losses, costs or expenses which are subject-matter of the insurance contract and which are directly or indirectly caused by, result from or are connected with actions taken for containing, preventing or suppressing acts of terrorism or which are related to them in any way.	A cover of €150 million XS €50 million was placed at January 1, 2003, in the international reinsurance markets.	The Austrian terrorism policy, developed by the Austrian Insurance Association (VVO), will offer insurance coverage for property and business interruption losses arising from acts of terrorism. Acts of terrorism are any acts performed by persons or groups of persons with the intention of reaching political, ethnic, religious, ideological or similar goals which are likely to spread fear or fright among the population or parts of the population, thus exerting influence on a government or government institution. Damages caused by terrorism shall be insured up to the maximum of the total sum insured per calendar year (property damage and business interruption insurance together). If, however, this sum exceeds €5 million, then this amount will be the maximum limit. Only risks located within the territory of the Republic of Austria will be insured. The cover will be noncompulsory. The insurance company issuing the terrorism policy will cede the business into the terrorpool.

Primary Insurance	Reinsurance	Comments		
BELGIUM				
Property Personal lines (simple risks): include cover, imposed by law. Commercial lines (special risks): excluded. Very limited cover available for large commercial properties. Automobile Not excluded. General liability Personal lines: not excluded. Commercial lines: excluded. Workers compensation Included. Accident In general not excluded.	Property XL/R: in principle, risks in excess of €50 million excluded. XL Cat: in general excluded. If included, separate pricing. Exclusion of Biological/Chemical terrorism. Automobile Not excluded. General liability Not excluded, but annual aggregate limit. Workers compensation Not excluded, but annual aggregate limit. Accident Not excluded, but annual aggregate limit.	Position of Association of Belgian Insurers is that Belgium is too small for a market solution and that solution should be found on European level. However, there is a project at the Insurance Association to restrict cover: (1) Motor liability: 1st layer of €25 million given by insurer of motor vehicle used terrorist act and 2nd layer of €50 million supported by Motor Guarantee Funcover of €75 million in total. (2) Property: - Distinct major terrorist act assimilated to war and therefore not covered. - Will determine whether terrorism cover can be granted for large simple and commercial risks with sub-limits.		
DENMARK				
Personal lines No exclusions. Commercial Generally no exclusions. Industrial Full coverage for building insurance. Limitation for contents and business interruption.	Reinsurance generally follows the original conditions but excludes NBC terrorism.			
FINLAND				
Personal lines No exclusions. Commercial and Industrial Exclusions imposed but with standard €3 million per policy write back.	Reinsurance generally follows the original conditions but excludes NBC terrorism.	All Finnish insurance companies, except Pohjola and If, participated in a Finnish Terrorism Pool. The Pool, with a capacity of e30 million XS €10 million, is meant as a last resort in t event of a major terrorism loss in Finland, and recovery will be made under the pool after traditional reinsurance programs have been exhausted.		

Primary Insurance

Reinsurance

Comments

FRANCE

Bodily injury:

(Art L.126-1 French Insurance Code) Victims of acts of terrorism which occur on territory of the French Republic as well as victims with French nationality while abroad are indemnified according to Art L.422-1 of the French Insurance Code: Indemnity for bodily injury is entirely paid by a State Fund set up for this purpose.

Physical damage (Art L.126-2 French Insurance Code – created by Law N° 86-1020 September 9, 1986)

All contracts which protect properties shall give coverage for acts of terrorism when committed on the territory of the French Republic.

Previously terrorism coverage was granted at same conditions (franchise - limit) as the main fire insurance coverage.

Following a decree on December 28, 2001, insurers are authorized to provide different conditions for the perils of fire and terrorism

Cover for terror has been compulsory since 1986. Primary insurers get reinsurance protection from the GAREAT Pool (Gestion de l'Assurances et de la Réassurance des Risques attentats et actes de terrorisme)

With the encouragement of FFSA & GEMA (Insurance industry federations), all insurers have to become members of the Pool.

Compulsory cession: all members must cede coverage for acts of terrorism under policies with total sums insured (direct loss and loss of profits) exceeding €6 million.

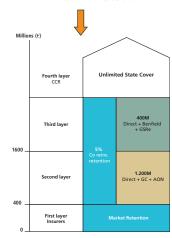
Contracts involved:

- Property damage and loss of profits to professionals
 - Technical risks
- Exhibitions and specialty risks
- Policies covering large real estate Policies covering local authorities
- Atomic risks (physical damage excluding liability) Personal lines are not covered.

Territory: risks located on territory of the French Republic

Organization of the capacity and reinsurance schedule: four levels as follows





GERMANY

Personal lines policies and personal accident still cover terrorism. There is still no exclusion incorporated.

In respect of commercial business up to total sum insured of €25 million no terrorism exclusion is valid.

For risks exceeding €25 million total sum insured, terrorism will be excluded. For those risks, stand alone terrorism coverage is theoretically available for substantial additional price.

EXTREMUS Versicherungs AG will provide cover for industrial plants and buildings with sums insured over €25 million for buildings and business interruption. Only risks located within the territory of the Federal Republic of Germany will be insured. The cover will be noncompulsory. Proportional property treaties will cover terrorism for risks up to total sum insured €25

For risks exceeding this amount, a further opening of treaties will have to be discussed with treaty reinsurers on a case-bycase/treaty-by-treaty basis. However, the approach of reinsurers is rather restrictive. It can be said that the more "industrial" a portfolio is, the more restrictive the approach of reinsurers will be.

EXTREMUS Versicherungs-AG, Germany's specialist company covering terror-caused property damage, was founded in 2002. The objective of the company is to take care of the interests of medium-sized companies and industry in Germany in respect to coverage for property and BI-losses caused by terrorism. The shareholders are essentially primary insurers and reinsurers operating in Germany.

An overview of EXTREMUS coverage: EXTREMUS policies cover all property located in Germany and all profits made in Germany. The sum insured of the contract in question of the property/business interruption insurer must exceed €25 million.

Insured perils and losses:

- Fire, explosion, impact and crash of aircraft, aerial bodies, vehicles and parts of their cargo; malicious damage insofar as caused by an act of terrorism.
- Losses resulting from business interruption caused by an insured property loss, however, the property loss as well as the business interruption loss must occur at the insured location in Germany. The maximum period of liability is 12 months.

Noninsured perils and losses: War, warlike events, civil war, revolution, rebellion, uprising, looting, acts of the authorities, nuclear energy, contamination, contingency losses, remote effects losses, damage to data, unless caused by a property loss,

Insured property: Buildings and other component parts of the premises, personal property

Noninsured property: Aircraft, satellites, watercraft, installations of the nuclear fuel circulation

Insured costs: Debris removal costs, demolition costs and particular costs for decontamination are covered up to 10 percent of the sum insured of the policy, respectively up to 10 percent of the maximum annual indemnification, maximum €150 million

Insured location: All property and premises of the policyholder or of the companies designated in the insurance contract within the Federal Republic of Germany.

Deductible: The deductible can be chosen individually.

Tariff: The tariff functionally depends on the sum insured of the property/business interruption insurance contract in question, as well as on the chosen maximum annual compensation. There is no differentiation regarding the kind of the risk and location.

An overview of EXTREMUS capacity: Effective January 1, 2005, the total capacity provided is \in 10 billion on an annual aggregate basis organized in two layers. The first \in 2 billion of capacity is placed with the national and international insurance and reinsurance market. Beyond the €2 billion in capacity provided from the insurance and reinsurance industry the federal government of Germany provides an additional capacity of €8 billion.

Primary Insurance Reinsurance Comments HOLLAND In view of the creation of the NHT (see Following earlier attempts by reinsurers to On July 1, 2003, the 'Nederlandse Herverzekeringsmaatschappij voor Terrorismeschaden' comments) in principle, all primary policies (aviation and to a great extent marine risk exclude terrorism from all property policies, most are now in favor of the NHT, which has (NHT) or 'Dutch Reinsurance Company for Terrorism Losses' became operational. The NHT has been set up by the Dutch Association of Insurers with the support of the Dutch Ministry excluded) issued by an insurance company brought transparency and structure to the which participates in the NHT will fall under revised conditions and clauses. In Dutch market in respect to terrorism. The NHT is a nonobligatory pool, but has the support of some 250 insurance companies addition, for policies which were non-As of January 1, 2004, it has been communi-(both life and non-life), representing at least 95 percent of the total market premiums (life cated that the NHT, as well as most reinsur-ers, will not accept double-reinsurance covercancelable (where no limitation of cover by and non-life combined). The NHT was set up as a reinsurance company, entering into a reinsurance contract with each of the individual participants. The scope of coverage is rather introducing the NHT clause was possible) the 'Noodwet Financieel Verkeer' unique in comparison with other European terrorism pools, as it comprises both life and age. All terrorism exposure falling within the (Emergency Act Financial Transactions) will apply. This law enables the government, in scope of the NHT is required to be trans-ferred to the NHT and will no longer appear non-life business, including private healthcare. Excluded are aviation and aviation liability policies, as well as policies which have taken on terrorism as such. order to safeguard continuity of the insurunder the traditional reinsurance programs. ance industry, to reduce the exposure for insurers in case of accumulation of their The NHT has introduced a maximum indemnity for property policies equaling €75 million per original insured per location per annum (property/contents/consequential loss combined) exposure by virtue of the fact that no risk to avoid excessive erosion of the available capacity. The total capacity of the NHT equals reduction by the introduction of the NHT clause was possible. €1 billion per annum, which is distributed over the following layers: Market Retention: €400 million from ground up to be provided by the NHT participants. The NHT pooling arrangement (see comments) limits the total exposure by the Layer 1: €200 million XS €400 million, being allocated to the international reinsurance or retrocession markets. introduction of the NHT clauses to €1 bil-Layer 2: €200 million XS €600 million, being allocated to the international reinsurance or lion maximum per annum for all lines. In retrocession markets. addition, the exposure for Property/BI risks Layer 3: €200 million XS €800 million, provided by the Dutch government (50%) and the is limited to €75 million per location per international reinsurance or retrocession markets (50%). annum. It is possible to insure excess amounts elsewhere. However, so far this has happened only on a limited scale. For co-insurance risks placed at the Dutch coinsurance bourses the previous VNAB interim clause has been replaced by the NHT clause, or a shorter version thereof. ITALY Property Terrorism cover is generally excluded. Terrorism cover is generally excluded. The Italian National Insurance Companies Association (ANIA) is considering a proposal to the government for the creation of a specific pool, but for the time being, there is no Casualty - Target risks such as bridges, power stations formal resolution on this matter Terrorism is always excluded. and dams are always excluded. Marine Casualty Companies must follow the terrorism Terrorism is always excluded. exclusions/limitations provided by the Marine reinsurance market. Terrorism is always excluded and/or limited. **NORWAY** Property Personal lines No exclusions but aggregate sublimit per Reinsurance generally follows the original year is common. conditions but excludes NBC terrorism Commercial Generally no excluded but with limited write back. Industrial Generally excluded but with limited write back.

Primary Insurance	Reinsurance	Comments
PORTUGAL		
Property - Usually not excluded for personal and commercial lines. Restrictive for large risks according to their exposure to terrorism.	Absolute exclusion for large industrial risks and restrictions for smaller industrial and commercial lines through TIV limits and/or aggregate annual limit.	National specific pool under study but unlikely. New definition of terror risk in the policy wording separating it from malicious acts and vandalism.
Casualty - Usually excluded.		
Workers compensation - Excluded.		
SPAIN		
Personal lines including PA/commercial /industrial lines - Terrorism has always been directly covered by the Consorcio de Compensacion de Seguros on behalf of the Spanish government for properties located in Spain and, in the case of personal accident, those terrorists acts occurring in Spanish territory. Also included under commercial and industrial lines are theft, plate glass, machinery breakdown, electronic equipment, civil works, motor vehicles and rail-track vehicles. Casualty - Is not covered by the Consorcio, but can be covered in the open market.	Aviation casualty - Effective September 11, 2001, reinsurance coverage for airlines resulting from war or terrorism is provided for by the Consorcio. The coverage is in accordance with the conditions of those policies existing before this date. The maximum limit per loss/insured is approximately €2 billion. Business interruption - January 1, 2002, reinsurance coverage is provided by the Consorcio as a consequence of a terrorist act.	The Consorcio de Compensacion de Seguros has long provided primary cover for terrorism. As a completely transparent government entity and integral part of the insurance and reinsurance sector, it operates under the supervision of the Ministry of Finance (Ministerio de Economia), With sufficient reserves at its disposal, it has the ability to protect and provide economic compensation for extraordinary perils on behalf of the Spanish government on a direct basis or through reinsurance.
SWEDEN		
Personal lines - No exclusions.	Reinsurance generally follows the original conditions but excludes NBC terrorism	
Commercial - Generally no exclusions.		
Industrial - Exclusions imposed but with limited write back.		

Primary Insurance	Reinsurance	Comments		
SWITZERLAND				
Personal lines - Property: No exclusion/no additional premium up to sum insured of MCHF10 for buildings/content/BI - Accident: No exclusion in Workers Comp (Accident Insurance Act) Commercial/Industrial - General exclusion for risks with total sum insured > MCHF10	Property Risks with total sum insured <mchf10 additional="" and="" between="" covered="" covers="" for="" individual="" insured="" market="" mchf10="" mchf100="" premium="" reinsurance="" risks="" solution="" solutions="" sums="" under="" with="" without="">MCHF100 Other lines - Accident: Limitation of reinstatements for terrorism</mchf10>	of 85%.		
UNITED KINGDOM				
Absolute terrorism exclusions are applied to all commercial property policies, and, to a varying degree, casualty covers. Full value terrorism cover is available for commercial property risks situated in England, Scotland, and Wales only (excludes Northern Island, Channel Islands or Isle of Man) by extension of the property policy and subject to additional premium. Such extension of cover is only available from Pool Re members providing the general property cover (i.e., not in isolation). Pool Re members are free to set premiums & can compete for terrorism cover. Direct Insurers' load Pool Re reinsurance rates by 5 percent to 30 percent. In the event that insured elects to buy such extension, most insurers will amend the terrorism exclusion to provide "back to back" cover with the Pool Re extension. Pool Re cover is not available for personal lines or casualty policies.	Effective January 1, 2003 Pool Re provides treaty reinsurance to its members and is no longer a "tariff" setting insurance vehicle. Risk eligibility criteria remain unaltered: - Commercial property risks in England, Scotland and Wales only - Marine, aviation & transit, motor & reinsurance excluded - 12-month contract only Members' retention per event/annual aggregate for each year of account are set in advance by Pool Re based on agreed formula. Reinsurance rates effective January 1, 2003. Material damage: Zone A&B 0.03% on TIV Zone C&D 0.006% on TIV Business interruption: Flat rate 0.021% on TIV These rates can be amended by Pool Re at any time, subject to appropriate notice.	Pool Re is terrorism insurance mutual with retrocession agreement secured by UK Government. Membership of Pool Re is optional.		

ASIA/PACIFIC

Primary Insurance Comments Reinsurance AUSTRALIA The Terrorism Insurance Bill (TIB) establishes The Terrorism Insurance Bill (TIB) of 2002 establishes the framework to implement the - Not covered under stated perils policies the Australian Reinsurance Pool Corporation scheme announced on October 25, 2002 for replacement terrorism insurance. and currently excluded under all risks (ARPC), through which insurers are able to reinsure their exposure to liability, under eligi-The scheme became active as of July 1, 2003. Details of the scheme are as follows: ble insurance contracts, for losses arising - The first layer is retained by the insureds. - The second layer of AU\$300 million is funded by premiums. Commercial industrial from declared terrorist incidents. Excluded by all major insurers, other than The third layer is a commercial loan for AU\$1 billion. - The fourth layer is a government indemnity for up to AU\$9 billion. run-off of existing exposures. In addition, insurers who seek terrorism reinsurance through (ARPC) will retain part of the risk of liability from a declared terrorist The TIB was passed in its original form on June 30, 2003, and states that all eligible conincident. The Treasurer will set the retention by issuing directions to the (ARPC). Initially, it tracts – essentially contracts covering commercial property loss or business interruptions risks and, to a limited extent, public liability insurance as well as those providing coverage is anticipated that the retention will be set at for eligible property located in Australia – are required to provide cover for a declared terror-AU\$1 million per insurer per annum, and AU\$10 million across the industry per event. ist incident in Australia. Terrorism coverage includes chemical and biological attacks, but excludes nuclear attacks. The Act states that the Minister must declare that an act constitutes a declared terrorist incident for the purposes of the Act. In addition, for a terrorist act to be declared a terrorist incident, it must occur within Australia's domestic borders. Offshore acts of terrorism will not be covered by the Act. Terrorism cover provided by the TIB is compulsory. The TIB applies to all insurers including captives regardless of country of domicile or location. Insurers cannot contract out of this legislation, although there may be issues of enforcement in overseas courts if the proper law of the eligible insurance contract is not that of Australia. Contracts excluded from the TIB include: - Product liability insurance contract. Marine cargo/ transit insurance; marine hull or pleasure craft insurance; professional indemnity insurance; D&O liability insurance; machinery breakdown; stand-alone insurance contracts; workers compensation insurance; compulsory third-party insurance; travel insurance; sickness and accident insurance; life insurance; salary continuance insurance; superannuation contract consumer credit insurance; and lenders mortgage Eligible insurance contracts in force on July 1, 2003, or which are entered into after June 20, 2003, and before October 1, 2003, that have a period of insurance of longer than 12 months; and is not a project specific contract that has a policy period for the duration of - A contract of insurance underwritten by the Commonwealth. - A contract of insurance to the extent that it provides cover to the Commonwealth or a State or Territory. A contract of insurance entered into in the course of State insurance or Territory insurance, including a contract of insurance in which the State or Territory is a joint insurer with another insurer. Contracts of insurance provided by a registered health benefits organization. - A contract of insurance entered into by the Export Finance and Insurance Corporation under the Export Finance and Corporation Act of 1991. The government's objective is to operate the scheme only while terrorism insurance cover is unavailable commercially on reasonable terms. As such, reviews of the scheme and the global terrorism risk reinsurance market will be conducted every two or three years to assess the state of the market and the possible wind-up strategy of the scheme. Components of the scheme, including pricing, classes of insurance required to provide terrorism risk cover, and level of underwriting available, are deliberately flexible and are not being set in legislation in order to encourage the re-emergence of the commercial market.

ASIA/PACIFIC (continued)

Primary Insurance	Reinsurance	Comments
CHINA-MAINLAND		
Property insurance - Two sets of forms: one set for foreign investments and one set for domestic insured. The form for foreign investment is being used increasingly for domestic policyholders in recent years because of its broad coverage. There is an exclusion clause in the foreign form that excludes war and war-like activities, but no specific mentioning of terrorism.		Types of policies that have terrorism stipulated in their Exclusion section: - Property insurance - CAR/EAR/MB - Public liability - Product liability Types of policies where terrorism is not listed in the Exclusions: - LOP - Manine hull and cargo (war risks following London market) - Money insurance - Employer liability - Aviation - Travel agencies' liability - Air transportation cargo insurance - In-land cargo transportation. ** War, warlike acts, operations, act of hostility, armed conflict, requisition, and confiscation are shown under the exclusion section of these policies.
CHINA-HONG KONG		
The Motor Insurance Bureau (MIB) in Hong Kong has established a limited facility of up to HK\$200 million (£16.5 million) to provide cover for the claims of innocent third parties in the event of bodily injury caused by a terrorism act through the use of a motor vehicle on the road in Hong Kong.		Hong Kong Motor Terrorist Pool: This facility will be funded out of the MIB "First Fund" that is already established. If this is exhausted, there will be additional levies by the MIB on motorists. In order to retain its motor license in Hong Kong, Lloyd's has signed up to the facility via a Supplemental Memorandum of Agreement to the original Motor Memorandum of Agreement for the MIB.
INDIA		
Terrorism cover will be available as a buyback. There will be a separate rate for the terrorism cover, depending on type of risk and sum insured, but in the area of 0.03 percent to 0.05 percent of total sums insured.		Aggregate losses any one location for all Indian insurers will be limited to Rs.2 billion, any loss in excess will involve prorating all recoveries. The Indian government has approved a change in the fire tariff for all Indian policies, effective April 1, 2003. The former riot, strike, and malicious and terrorism damage cover will now exclude terrorism and be renamed riot, strike, and malicious damage cover (RSMD).

ASIA/PACIFIC (continued)

Primary Insurance	Reinsurance	Comments
JAPAN		
Personal lines - Terror not excluded from most property policies. Commercial property - In general, terror excluded for risks with TIV greater than ¥1 billion for commercial and ¥1.5 billion for industrial.	Terror risk being excluded from reinsurance contracts on renewal, normally using NMA 2930b.	The Marine & Fire Insurance Association of Japan has renewed support for the establishment of an industry-wide fund designed to cover losses from terrorist attacks on Japanese soil, despite earlier plans for the fund to be put on hold because of the general industry sentiment that attacks on the country were unlikely.
KOREA		
Terror excluded from all policies except personal accident cover.	Reinsurance is not available currently.	Korea Fire Protection Association set up pool for terror cover only for government properties up to KRW15 billion for property damage and KRW10 billion for bodily injury. Terror cover was provided only for the World Cup and the Asian Olympics.
MALAYSIA		
Prior to January 1, 2002, terrorism cover was on a run-off basis for both commercial and personal lines. After January 1, 2002, terrorism cover was excluded from all commercial and personal lines policies. Extensions, however, may be granted.	A quota share facility by Malaysia National Reinsurance Bhd (MNRB) for RM100 million per policy with an event limit of RM400 mil- lion and RM800 million in the aggregate is jointly led by Hiscox and Catlin Syndicates.	The government has not enacted terror cover legislation in Malaysia and appears unlikely to do so, as it is satisfied with the availability of cover on an extension basis.
PHILIPPINES		
Sabotage and terrorism (S&T) excluded on all policies. Property - Sabotage and terrorism (S&T) excluded unless with special arrangements on big industrial risks.		Sabotage and terrorism (S&T) has never been issued as a standalone policy but rather as an endorsement, if applicable.
SRI LANKA		
		SRCC/Terrorism Fund: The only pool is the government-sponsored fund covering strikes, riots, civil commotion, and terrorism. This fund was set up in 1983 after extensive rioting caused overseas reinsurers to withdraw protection for SRCC perils. In 1989, the fund was extended to include the risk of terrorism.

LATIN AMERICA

Primary Insurance	Reinsurance	Comments
ARGENTINA		
Terrorism exclusion on all policies.		No solution on government intervention.
BRAZIL		
Local carriers will generally follow the conditions of coverage approved by IRB Brasil Resseguros S.A. Terrorism has been a standard exclusion on property, engineering risks, and general liability policies since November 9, 2001, for all policies renewing or incepting on or after that date. Any request for coverage is handled on a case-by-case basis. However, requests are very few, mostly due to requirements imposed on Brazilian subsidiaries by their foreign controllers. On aviation insurance, terms and conditions are the same as those applicable elsewhere.	IRB Brasil Resseguros S.A. will not generally retain any portion. Thus far, all requests for coverage have been met by international markets.	The Brazilian government is authorized to accept liability for damages caused to third parties, including passengers, arising out of acts of war or terrorism, as per respective coverage provided by the insurance markets before September 11, 2001, against Brazilian-registered aircraft operated by Brazilian Commercial Airlines. This excludes air taxi operators up to an aggregate limit of US\$1 billion.
CHILE		
Personal lines - No exclusions. Commercial and industrial - Generally excluded. The market, through the Insurers Association, defined a general terrorism exclusion clause that can be used by any insurance company and applies to all covers. This clause was approved by the Superintendence on November 2001.	All treaties exclude terrorism except for personal lines. On commercial and industrial lines only few clients ask for a limited terrorism cover (usually less than US\$1 million), which is placed facultatively in Lloyd's.	
COLOMBIA		
Most primary insurers can include terrorism cover for all local property/casualty policies, subject to a local deductible. The limit will normally be sub-limited to a maximum permitted by insurers' treaties. Increases above the treaty limit can be handled by a special acceptance request or by purchasing a separate facultative cover, which then sits excess the local deductible quota share of the treaty limit.	Reinsurers are prepared to look at limits excess of a local deductible and the limit provided by the cedent, which in most cases will be a maximum of US\$2 million or US\$3 million for propertyBl combined. Special acceptances can increase this limit to US\$5 million PD/Bl combined. When the risk category is excluded by insurers treaties, (WXL), e.g., shopping centers, oil installations, government buildings, utilities, etc., London market terrorism specialists will quote excess of a substantial deductible, usually a minimum of US\$250,000 for normal risks and US\$1 million for power generation, petrochemical, etc. PD, and between 30 and 45 days BI.	Most local insurers are not putting an absolute terrorism exclusion in local policies, as cover is only provided when a separate peril, "AMIT", is purchased. AMIT can be translated as malicious acts by third parties, which has traditionally included actions by guerrilla groups. Reinsurers are now forcing local companies to charge more for AMIT, sublimit the cover, and apply higher deductibles. In some lines, like workers' compensation, reinsurance cover for terrorist acts has disappeared. If insurers are to offer the cover, it would be for their net retention.
MEXICO		
Terrorism exclusion on all policies.		

MIDDLE EAST

Primary Insurance	Reinsurance	Comments
BAHRAIN		
		War Risks Pool: The Arab War Risks Insurance Syndicate (AWRIS) is based in Bahrain. The syndicate is a pool of war risks from 17 Arab countries, with 102 member companies. The pool, which has been in existence since the late 1970s, has been located in Bahrain since 1998. Gross premium income in the year 2000 was US\$4.6 million. Quota share and aggregate excess of loss reinsurance is placed in London.
ISRAEL		
Assistance to Victims of Enemy Actions: The State of Israel takes responsibility for aiding every person harmed by enemy actions (officially known as "victims of enemy actions"). According to the law, victims of terror attacks, and their families, regardless of when they receive Israeli citizenship, are entitled to a number of benefits, including financial compensation, from the State of Israel.		Israel has two separate government-backed programs, providing casualty and property, and life and health insurance.

AFRICA

Primary Insurance	Reinsurance	Comments
NAMIBIA		
Primary insurance for terrorist acts (see comments) available from National Special Risks Insurance Association (NASRIA). Lloyd's also participates.	Government currently acts as ultimate reinsurer, but the protections to NASRIA's retention are very conservative to try to avoid losses to government.	NASRIA was established in October 1987 and has operated since January 1988, following cancellation of reinsurance facilities previously available to the conventional insurance market. The reinsurance protection previously available to the conventional market was for acts of terrorism and politically motivated acts. To avoid a gap in cover, NASRIA includes riot, strike and labor disturbances, which were previously excluded from conventional policies.
SOUTH AFRICA		
Primary Insurance for terror available from South African Special Risks Insurance Association (SASRIA).	SASRIA has a government guarantee of R1 billion.	SASRIA was established and registered during February 1979 in terms of Section 21 of the Companies Act of South Africa. This followed the 1976 Soweto riots, when conventional insurers became unwilling and unable to insure incidents of political riot. In addition, reinsurance protection for this peril was unavailable. SASRIA was set up as a government insurer, providing primary cover for the risk of political riot. SASRIA was able to accumulate substantial reserves, which, as a Section 21 company, it could not distribute. This accumulation reflected the plan's favorable experience, the government reinsuring SASRIA's exposure, and SASRIA's tax-exempt status. To normalize the situation, in 1998 SASRIA was converted to a limited company known as SASRIA Limited. The government became sole shareholder at that date and, after an actuarial assessment, established the proportion of assets not essential for the prudent continuance of the business. These assets were declared as a special restructuring divided by the shareholder, totaling R10.5 billion over two years, paid to the government and used to offset state debt, as required by the Conversion of SASRIA Act.

Appendix C

Summary of Catastrophe Bond Transactions The data pertaining to the catastrophe bond transactions have been compiled by MMC Securities Corp.* and obtained from publicly available sources.

^{*}Securities are offered in the United States through MMC Securities Corp., Member NASD/SIPC. MMC Securities Corp. is an affiliate of Guy Carpenter & Company, Inc.

SUMMARY OF CATASTROPHE BOND TRANSACTIONS

						I	
YEAR OF	SPECIAL PURPOSE VEHICLE	SPONSOR	RISK AMOUNT (\$ MM)	TRANCHES	RATING	PERIL	RISK LOCATION
1997	Winterthur	Winterthur	6.0	Notes		Hail	Switzerland
1997	SLF Re I	Reliance National	30.0			Multiple	
1997 —	Residential Re I - 1997	USAA -	82.0 313.0	Class A-1 Notes Class A-2 Notes	AAA (SP) BB (SP)	Hurricane –	East / Gulf Coast —
1997	SR Earthquake	Swiss Re	25.0	Class A-1 Notes	BBB- (F)	Earthquake	California
- - -	Fund Ltd.	- - -	12.0 60.0 15.0	Class A-2 Notes Class B Notes Class C Notes	BBB- (F) BB (F) BB- (F)	_ _ _	- - -
1997 -	Parametric Re	Tokyo Marine & Fire *	80.0 10.0	Notes Units	BB (F)	Earthquake –	Japan —
1998	SLF Re II	Reliance National	10.0			Multiple	U.S.
1998	SLF Re III	Reliance National	35.0			Multiple	U.S.
1998 -	Trinity Re I, Ltd.	Centre Solutions (Zurich Re)	11.0 61.0	Class A-1 Notes Class A-2 Notes	AAA (F) BB (F)	Hurricane –	Florida —
1998	Residential Re II - 1998	USAA	450.0	Notes	BB (F)	Hurricane	East / Gulf Coast
1998	Pacific Re	Yasuda Fire & Marine *	80.0	Notes	BB- (F)	Typhoon	Japan
1998 - -	Mosaic Re I	F&G Re (St. Paul) —	9.0 15.0 21.0	Certificates Class A Notes Class B Notes	AAA (F) BB (F) B (F)	Multiple _ _	U.S. - -
1998 -	XL Mid Ocean Swap	Mid Ocean & X.L. Global Re	50.0 50.0	Tranche A Tranche B		Multiple –	U.S
1998 -	Trinity Re II, Ltd.	Centre Solutions (Zurich Re)	2.5 51.6	Class A-1 Notes Class A-2 Notes	AAA (F) BB (F)	Hurricane –	Florida —
1999	Gemini Re, Ltd.	Allianz Risk Transfer	150.0	Notes	BB (F)	Windstorm	Germany
1999	SLF IV	Reliance National	10.0	-	-	Multiple	-
1999 - -	Mosaic Re II –	F&G Re (St. Paul) —	1.4 24.3 20.0	Certificates Class A Notes Class B Notes	AAA (F) BB (F) B (F)	Multiple - -	U.S. –
1999	Halyard Re B.V.	Sorema	17.0	Notes	BB- (F)	Multiple	Euro / Japan
1999	Domestic, Inc.	Kemper	80.0	Notes	BB+ (SP)	Earthquake	New Madrid
_	_	=	20.0	Shares		_	(U.S.) —
1999	Concentric, Ltd.	Oriental Land Co., Ltd.	100.0	Notes	BB+ (SP)	Earthquake	Japan
1999	Residential Re	USAA	200.0	Notes	BB (SP)	Hurricane	East / Gulf Coast
1999	Juno Re	Gerling Global Re	80.0	Notes	BB (SP)	Hurricane	East / Gulf Coast
1999	Namazu Re, Ltd.	Gerling Global Re	100.0	Notes	BB (SP)	Earthquake	Japan
1999	Gold Eagle Capital Ltd.	American Re	50.0 126.6	Class A Notes Class B Notes	BBB- (F) BB (F)	Multiple —	U.S
	_	-	5.5	Class B Shares	BB+ (F)	-	-
2000 - -	Atlas Reinsurance p.l.c. — —	SCOR - -	70.0 30.0 100.0	Class A Notes Class B Notes Class C Notes	BBB+ (SP) BBB- (SP) B (SP)	Multiple – –	U.S. / Euro / Japan –
2000	Seismic Limited	Lehman Re —	145.5 4.5	Notes Shares	BB+ (SP)	Earthquake –	California –
2000	Halyard Re - 2000	Sorema	17.0	Notes		Multiple	Euro / Japan
2000	Alpha Wind 2000	Arrow Re/State Farm –	37.5 52.5	Shares Notes	BB (SP) BB+ (SP)	Hurricane –	Florida —
2000	Residential Re IV 2000	USAA	200.0	Notes	BB+ (SP)	Hurricane	East / Gulf Coast
2000 _	NeHI —	Vesta Insurance —	41.5 8.5	Notes Shares	BB (F)	Windstorm –	Northeast / Hawaii –

SUMMARY OF CATASTROPHE BOND TRANSACTIONS (continued)

YEAR OF	SPECIAL PURPOSE VEHICLE	SPONSOR	RISK AMOUNT (\$ MM)	TRANCHES	RATING	PERIL	RISK LOCATION
2000	Mediterranean Re	AGF -	41.0 88.0	Class A Notes Class B Notes	BBB+ (SP) BB+ (SP)	Multiple –	Euro —
2000	Prime Capital I Hurricane Ltd.	Munich Re	159.0	Notes	BB+ (SP)	Hurricane	NY / Miami
- -	Humcarie Ltd.	- -	6.0 1.5	Shares Units		_ _	_ _
2000	Prime Capital II Calquake &	Munich Re	129.0	Notes	BB (SP)	Multiple	California / Euro
- -	EuroWind Ltd. — —	- -	6.0 1.5	Class B Shares Units		_ _	
2001	Western Capital	Swiss Re –	97.0 3.0	Notes Shares	BB+ (SP)	Earthquake	California —
2001	Gold Eagle Capital 2001 Ltd.	American Re	116.4	Notes	BB+ (SP)	Multiple	U.S.
-	-	-	3.6	Class B Shares		_	-
2001	SR Wind Ltd.	Swiss Re - -	58.2 58.2 1.8 1.8	Class A-1 Notes Class A-2 Notes Class B-1 Shares Class B-2 Shares	BB+ (SP) BB+ (SP) BB (SP) BB (SP)	Multiple	U.S. / Euro / P.R. – –
2001 - -	Trinom Ltd.	Zurich Re 	60.0 97.0 4.9	Class A-1 Notes Class A-2 Notes Shares	BB (SP) BB+ (SP) B+	Multiple –	U.S. / Euro _ _
2001	Residential Re V - 2001	USAA	150.0	Notes	BB+ (SP)	Hurricane	East / Gulf Coast
2001	Redwood Capital I	Lehman Re —	160.0 5.0	Notes Pref Shares	BB+ (SP) BB+ (SP)	Earthquake —	California –
2001	Atlas Reinsurance II p.l.c.	SCOR	50.0 100.0	Class A Notes Class B Notes	A- (SP) BB+ (SP)	Multiple	U.S. / Euro / Japan
2002	Redwood Capital II, Ltd.	Swiss Re	194.0 6.0	Notes Preference	BBB- (SP)	Earthquake	California —
2002	K3	Hannover Re	230.0			Multiple	U.S. / Euro / Japan
2002	St. Agatha Re Ltd.	Syndicate 33 (Lloyd's)	33.0	Notes	BB+ (SP)	Earthquake	Cal. & New Madrid
2002	Fujiyama Ltd. General Ins Co *	Nissay Dowa	67.9	Notes	BB+ (SP)	Earthquake	Japan
-	-	-	2.1	Pref Shares	BB (SP)	_	-
2002	Residential Re VI - 2002	USAA	125.0	Notes	BB+ (SP)	Hurricane	E / Glf Cst / Hawaii
2002	Pioneer 2002 Ltd.	Swiss Re —	93.5 76.0	Class A Notes Class B Notes	BB+ (SP) BB+ (SP)	Hurricane Windstorm	North Atlantic Europe
_	_	_ _	66.2 67.3	Class C Notes Class D Notes	BB+ (SP) BBB- (SP)	Earthquake Earthquake	California Central U.S.
_	_	_ _	55.6 28.0	Class E Notes Class F Notes	BB+(SP) BB+ (SP)	Earthquake Multiple	Japan U.S. / Euro / Japan
2002	Studio Re Ltd.	Vivendi Universal	150.0 25.0	Notes Pref Shares	BB+ (SP) BB (SP)	Earthquake –	Southern Cal.
2003	Pioneer 2002 Ltd. ('03 tkdwns)	Swiss Re	16.3	Class A Notes	BB+ (SP)	Hurricane	North Atlantic
-	- (US (KUWIIS)	-	20.3	Class B Notes	BB+ (SP)	Windstorm	Europe
_	_	_ _	13.8 59.1	Class C Notes Class D Notes	BB+ (SP) BBB- (SP)	Earthquake Earthquake	California Central U.S.
- -	-	-	8.0 8.1	Class E Notes Class F Notes	BB+(SP) BB+ (SP)	Earthquake Multiple	Japan U.S. / Euro / Japan
2003	Residential Re 2003	USAA	160.0	Notes	BB+ (SP)	Multiple	U.S.
2003	Phoenix Quake Wind Ltd. Phoenix Quake Ltd. Phoenix Quake Wind II Ltd.	Zenkyoren * - -	192.5 192.5 85.0	Notes Notes Notes	BBB+ (SP) BBB+ (SP) BBB- (SP)	Multiple Earthquake Multiple	Japan Japan Japan

SUMMARY OF CATASTROPHE BOND TRANSACTIONS (continued)

YEAR OF	SPECIAL PURPOSE		RISK AMOUNT				
ISSUE	VEHICLE	SPONSOR	(\$ MM)	TRANCHES	RATING	PERIL	RISK LOCATION
2003	Palm Capital Ltd. Oak Capital Ltd.	Swiss Re	41.4 23.6	Notes Notes	BB+ (SP) BB+ (SP)	Hurricane Windstorm	North Atlantic Europe
_	Sequoia Capital Ltd.	_	22.5	Notes	BB+ (SP)	Earthquake	California
_	Sakura Ltd.	_	14.7	Notes	BB+ (SP)	Earthquake	Japan
-	Arbor I Ltd.	=	163.9	Notes	B (SP)	Multiple	U.S. / Euro / Japan
-	Arbor II Ltd.	-	26.5	Notes	A+ (SP)	Multiple	U.S. / Euro / Japan
2003	Formosa Re	Central Re (TREIP)	100.0	Notes		Earthquake	Taiwan
2003	Pylon Ltd.	Electricite de France	85.4	Series A Notes	BBB+ (SP)	Windstorm	France
-	_	_	146.4	Series B Notes	BB+ (SP)	-	-
2003	Redwood Capital III	Swiss Re	150.0	Notes	BB+ (SP)	Earthquake	California
2003	Redwood Capital IV	-	200.0	Notes	BBB- (SP)	-	-
2004	Oak Capital Ltd.	Swiss Re	34.5	Notes	BB+ (SP)	Windstorm	Europe
	('04 tkdwns) Seguoia Capital	_	22.5	Notes	BB+ (SP)	Earthquake	California
	Ltd. ('04 tkdwns)	_	22.3	Notes	DD+ (Sr)	Lattiquake	California
	Arbor I Ltd. ('04 tkdwns)	_	85.8	Notes	B (SP)	Multiple	U.S. / Euro / Japan
2004	Residential Re 2004	USAA -	127.5 100.0	Class A Notes Class B Notes	BB (SP) B (SP)	Multiple –	U.S.
2004	Helix 04 Limited	Converium Ltd.	100.0	Notes	BB+ (SP)	Multiple	U.S. / Euro / Japan
2004	Gi Capital Ltd.	Unnamed Japanese Insurer *	125.0	Notes	BB+ (SP)	Earthquake	Japan
2004	Foundation Re Ltd.	Hartford Fire Ins. Co.	180.0	Class A Notes	BB+ (SP)	Hurricane	U.S.
-	-	-	67.5	Class B Notes	BBB+ (SP)	Multiple	U.S.
2004	Redwood Capital V	Swiss Re	150.0	Notes	BB+ (SP)	Earthquake	California
	Redwood Capital VI	-	150.0	Notes	BB+ (SP)	- "	_
2005	A h 1 (a)	Cuita Da	45.0	Notes	D (CD)	A.A. John L.	IIC / E.m. /
2005	Arbor 1 Ltd. ('05 tkdwns)	Swiss Re	45.0	Notes	B (SP)	Multiple	U.S. / Euro / Japan
2005	Residential Re 2005	USAA	91.0	Class A Notes	BB (SP)	Multiple	U.S.
-	-	-	85.0	Class B Notes	B (SP)	-	-
2005	Cascadia Ltd.	FM Global	300.0	Notes	BB+ (SP)	Earthquake	U.S.
2005	Avalon Re Ltd.	Oil Casualty Insurance	135.0	Class A Notes	A- (SP)	Liability	Worldwide
_	-		135.0	Class B Notes	BB+ (SP)	-	-
-	-	_	135.0	Class C Notes	B (SP)	-	-

^{*} Sponsored by Swiss Re.

Notes

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