SPECIAL REPORT

Insurers waking up to risks of climate change

Stung by historic losses, an influential industry is forced to take action

By Alistair Barr, MarketWatch
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(Updated to correct the spelling of the law firm Anderson Kill & Olick.)

SAN FRANCISCO (MarketWatch) -- Insurance companies used to pay little attention to global warming. But after paying a record $58 billion in claims from hurricanes and other catastrophes in 2005, the industry has begun to acknowledge climate change as a growing threat.

Rising sea temperatures could trigger more hurricanes, meaning that insurers' outmoded disaster-prediction models would lead to costly miscalculations. As a result, many big insurers have been forced to upgrade their forecasting tools, cut back on catastrophe risks they underwrite and raise their premiums.

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But even more may be at stake for the insurance industry as a result of growing public awareness of climate change and its consequences for the global economy. From hiking their prices to revamping their liability coverage, a wave of new practices by insurers could have far-reaching effects that reverberate throughout the corporate world.

"Insurers have always done best when risk is moderate and predictable, so they have a strong incentive to encourage risk reduction across all parts of society," said Andrew Logan, insurance program director at Ceres, a coalition of pension funds and other long-term investors that are concerned about the impact of global warming on their portfolios. "You're beginning to see that now with climate change."

Insurers have even started changing the way they invest their earnings. They're funneling more cash into environmentally friendly business and projects. New products also support climate-change initiatives.

In business and finance, little gets done without insurance companies playing a role. You can't buy a house without homeowners coverage, and big companies struggle to operate without policies on things like worker's compensation and business interruption.

In the 19th century, it was insurers who created the nation's first fire departments because they wanted the buildings they insured to stop burning down. The industry also helped convince the federal government to impose auto safety standards and encourage seatbelt use.

In the information age, insurers warned their corporate clients that data-related catastrophes stemming from the Year 2000 problem in computer software wouldn't be covered unless businesses took steps to prevent trouble ahead of time, helping to make the phenomenon a global issue.

Now, some insurers are beginning a similar push with climate change, Logan said.

'Not your grandfather's hurricanes'

Behind the transformation is a growing acceptance that higher levels of carbon dioxide and other greenhouse gases in the Earth's atmosphere are contributing to rising temperatures. The warming of the oceans is believed to cause larger and more frequent hurricanes, leaving insurers to cover at least some of the cost of future disasters. Watch a video clip about the modeling tools that insurers use for forecasting climate change.

Whether climate change is being driven by humans or by some sort of natural cycle is endlessly debated. Nevertheless, the insurance business has begun to adjust to a future in which hurricanes could be more powerful and more frequent.

After the record-breaking storms of 2004 and 2005, it became clear to many in the industry that there were severe flaws in the computer models it was using to predict hurricane activity, based on historical storm data.

"That was the first time we had the chance to check how the catastrophe models performed, and it was quite easy to see things had to be changed," said Andy Castaldi, head of the catastrophe-perils Americas team at Swiss Re (CH:001233237: news, chart, profile) , the world's largest reinsurer.

"These aren't your grandfather's hurricanes anymore," he added. "During last 10 years we've had record breaking storms, so there's concern that something else is going on."

Castaldi said Swiss Re has been updating its own catastrophe models to include the increased storm activity of recent years and also to incorporate estimates of future climate change.

There still isn't enough evidence to be sure how much climate change is man-made and how much is natural, but the risks are high enough that Swiss Re is incorporating them into its models, he added.

AIG (AIG) , one of the largest U.S. insurers, is creating a forum of experts this year with Harvard University and the Insurance Information Institute to explore links between climate change and extreme weather and how to incorporate these trends into catastrophe models.

Buffett vs. Munger

Warren Buffett, chairman Berkshire Hathaway (BRKA) (BRKB) , one of the world's largest reinsurers of big natural-disaster risk, said in early May that global warming could increase the frequency and intensity of future storms. That probably will prompt the company to charge more for hurricane coverage each year, he said.

"Our exposure goes up every year because of what's going on in the atmosphere, even though we don't fully understand what's going on," Buffett said at the company's recent annual meeting. This "could increase expectable losses from any given hurricane season by a factor of two, three, four or five."

Still, debate goes on, even within Berkshire's own executive ranks. Charlie Munger, its vice chairman, said during the annual meeting: "Would it be worse for mankind for it to be a little warmer?" Some regions of the world could struggle if they end up under water, but overall the human race will likely adapt if sea levels rise, he added.

35% increase

Other insurers and reinsurers that don't have their own catastrophe models rely on specialist firms, which have also changed their approach.

One top firm, Risk Management Solutions, began incorporating global-warming predictions from leading climatologists into its hurricane models in the aftermath of Katrina.

"After 2005, we realized it's no longer safe simply to assume current activity will continue along historically average trends," said Robert Muir-Wood, the firm's chief research officer. "Activity has increased and it's arguable that at least some of that is related to climate change."

RMS modeling now predicts a 35% increase in big hurricanes (defined as category three to five on the Saffir-Simpson scale) along the Gulf Coast over the medium term, compared to the historical average over the past century.

Climate models that assume higher concentrations of greenhouse gases suggest there would be even more intense and frequent hurricanes in the Gulf region in this century, according to RMS. It also cites a 2004 study by Knutson and meteorological modeling expert Robert Tuleya, who predicted a three-fold increase in category five storms in the second half of this century.

Higher prices

Higher expected losses have driven a surge in prices for insurance and reinsurance covering hurricane-related risks. Companies that offer homeowners and other types of primary property coverage buy catastrophe reinsurance to help protect themselves against big disasters.

The cost of catastrophe reinsurance jumped by 30% to100% when contracts were renewed on Jan. 1, 2006, months after Katrina struck, according to Guy Carpenter & Co. LLC, a major reinsurance brokerage owned by Marsh & McLennan.

Part of the surge in prices was fueled by changes in how Standard & Poor's and other credit-rating agencies assess risks in the industry. After Katrina, the agencies began to expect that reinsurers set aside more money to back some of the risks they take on.

"Rating agencies have created their own models that are more conservative than in the past," Castaldi said. "If losses are going up by 30%, you need more capital to back the same amount of business you wrote previously."

Subject to regulatory approval, insurers have begun to pass on higher reinsurance costs to customers in the form of higher premiums, especially homeowners in hurricane-prone coastal areas such as the Gulf of Mexico and Florida.

Premium rates for catastrophe-exposed coastal property saw four-fold and even seven-fold increases during the second quarter of 2006, according to a survey by the Council of Insurance Agents & Brokers. Property owners located as much as five miles inland were hit by the higher prices, the survey found.

Political push

Rate increases like that are unpopular, both from a business perspective for insurers and for politicians in the areas affected.

Allstate Corp. (ALL) and State Farm, two of the nation's largest providers of homeowners insurance, have led a push to develop a national fund that would provide a backstop to state-run catastrophe insurance programs.

The fund would be paid for with mandatory contributions from private insurers and could help keep homeowners coverage available and affordable in vulnerable states. Several insurers oppose the plan.

The insurance industry has been even more critical of a new Florida law passed in January that's designed to cut the cost of property coverage in the state.

The bill lets state-run Citizens Property Insurance Corp. compete with private insurers and repeals big rate increases that were due to kick in this year. The law also expands the Florida Hurricane Catastrophe Fund, another state-run entity that provides reinsurance to insurers in the region. See full story.

Backers claim the law will relieve the burden of higher insurance premiums from homeowners.

Many private insurers and reinsurers say that artificially low premiums may not be enough to cover the future cost of another big hurricane. That could leave all Florida taxpayers and policyholders making up any shortfall and, in effect, subsidizing the coastal lifestyles of some of the state's population.

Climate change litigation

The thought of more huge hurricanes barreling towards well-insured policyholders concerns many companies in the industry. But there could be a more worrisome specter now: lawyers filing a wave of global-warming suits against big corporations.

Lloyd's of London compared the coming legal onslaught to the suits launched against the tobacco industry in the 1990's.

In April, in a decision that could encourage more suits against industrial companies believed to be contributing to global warming, the Supreme Court ruled that the Environmental Protection Agency has the authority to regulate carbon emissions from vehicles.

"It's difficult to prove any one company caused global warming, but the Supreme Court decision will help plaintiffs fight off early motions to dismiss these types of suits," said James Davis, a Chicago-based managing partner of the law firm of Anderson Kill & Olick, which helps companies make claims on insurance policies.

Insurers could end up covering some of the cost of future settlements. Even if the complaints fail, insurers might have to pay for the cost of defending the litigation, he added.

Earlier suits tried to stop companies from emitting greenhouse gases, or attempted to force the government to regulate emissions. But now, a lot of complaints seek damages from companies, tied to the alleged effects of past emissions, Davis said.

"That's really scary to big insurers which sold a lot of coverage in the 1960's to the 1980's," he added. "When companies face suits claiming they contributed to global warming through their greenhouse gas emissions, they may be able to claim on these old policies."

Pollution exclusions

Such policies had pollution exclusions, meaning insurers wouldn't have to pay if a company was sued for emitting damaging fumes or waste. By the mid-1980s, those exclusions became even broader and are now known as "total pollution exclusions."

But up until the Supreme Court's EPA decision in April, carbon emissions weren't considered a pollutant, so they shouldn't be excluded from past insurance policies, Davis said.

Insurers will likely argue that absolute pollution exclusions in most general liability policies bar coverage for global-warming litigation, Davis said. But this point seems likely to rest on the "reasonable expectations" of the company when it bought the policy, he noted.

Davis says that if a company's normal operations involve the release of unregulated greenhouse gases, that company should expect its insurance to cover lawsuits, regardless of a pollution exclusion.

Still, other legal experts dispute much of this, even the basic idea that the recent Supreme Court ruling will spark a wave of global warming litigation.

"This has been heralded by some policyholder advocates as the start of an upsurge in this type of litigation," said Laura Foggan, a partner at law firm Wiley Rein who advises a trade group called the Complex Insurance Claims Litigation Association. "But we're not there yet."

"It's very difficult to prove that a particular company caused a plaintiff's home to be flooded because of global warming," she said.

But the threat of global-warming litigation is still large enough for the issue to have popped up as a possible bargaining chip in recent negotiations on proposed carbon emissions legislation.

Promoters in Congress have considered offering corporations litigation immunity if they support the legislation, according to one reinsurance company executive who didn't want to be identified. The offer could involve barring all global warming litigation against companies from the date a carbon emissions law kicks in, the person explained.

"That type of thing has certainly been discussed," Foggan said. "There are many proposals in Congress to address global-warming issues and the focus should be on what we can do to turn this away from a potential litigation issue and start looking forward to solutions."

Director liability

If emissions become regulated in the U.S., this could open up companies and their directors to more potential litigation.

If companies don't meet regulatory emissions targets, or fail to disclose enough under future laws, they could face fines or other punishment that could knock performance or make them less competitive.

That type of impact might spark lawsuits from shareholders against corporate executives or directors, triggering claims on so-called directors and officers policies.

Cases like these have been few and far between so far, but some say there's potential for such litigation.

"It's become a very hot issue, especially since the recent Supreme Court decision," Ceres' Logan said. "Insurers are beginning to worry about it."

One broader impact could be that insurers begin to exclude climate-change liability from their D&O policies. Without such coverage, directors would probably become much more focused on the environmental impact of the companies they serve, he said.

"There's no quicker way to get the attention of board members than to say they have limitless liability because their insurer won't cover them for certain things," Logan explained. "Every board in the U.S. would look at this issue, because their personal assets would be at risk and that focuses the mind."

With that in mind, Marsh & McLennan, Yale University and Ceres began a program last year to educate independent directors about the potential liabilities and strategic opportunities climate change can create for companies. More than 200 board members started the course in late 2006 and it runs through September 2008 across the U.S.

Industry initiatives

Other U.S. companies in the insurance business have recently launched initiatives and products designed to tackle climate change.

AIG and Travelers (TRV) have probably done more so far than most other U.S. insurers to tackle climate change issues, Logan said.

AIG Global Investment Group has set up a private-equity vehicle, called the Sustainable Future Investment Fund, which will invest in energy-efficiency and alternative-energy technologies, sustainable forestry and agriculture.

AIG's real estate investment business develops and buys buildings that conform to energy efficiency and clean technology standards created by the U.S. Green Building Council's Leadership in Energy and Environmental Design program.

The insurer's derivatives unit recently helped finance a big trade of carbon credits recognized by the Kyoto Protocol. The company has also developed an insurance product that protects companies against problems dealing with carbon credits.

Travelers Cos. (TRV) offers hybrid car owners a 10% discount on premiums in California and more than 40 other states in the U.S.

Fireman's Fund, a U.S. insurer owned by Germany's Allianz (AZ) (DE:840400: news, chart, profile) , has offered lower premiums for insurance on buildings that use less energy and emit fewer greenhouse gases. If the building is damaged, the insurer requires that it be rebuilt with more environmentally friendly materials and devices.

While some of these projects are just first steps, Ceres' Logan sees U.S. insurers doing more in the future. The industry is working with state regulators to develop mandated climate-change disclosures and some big insurers will probably come out in favor of the federal government limiting greenhouse gas emissions soon, Logan said.

"There's an inherent short-term focus built into the insurance industry," he said. "But now the risks are more tangible and present, so companies are being forced to look at this."

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