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CLIMATE CHANGE
The Insurance Industry Is Feeling The Heat Of Global Warming

By JOEL LANG
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Worrying about global warming can be like knowing with near certainty that an asteroid is going to hit the planet. The only questions are when and how much damage it will do.

Except that global warming, or climate change, as it is often called, is not a singular catastrophe that either will, or will not, happen. It's most assuredly real. As those constant and urgent warnings coming from scientists have made clear, climate change is both a present and future event. Think of it as an asteroid of unknown size striking the earth in super slow motion.

Scientists point to melting glaciers and rising sea levels and call it climate change. They see its telltale marks in drier droughts and fiercer hurricanes and predict that malaria and Lyme disease will spread as greater heat breeds pestilence from pole to pole. Even poison ivy will get worse, Harvard and Duke university scientists recently proved, as urushiol, the plant's rash-causing chemical, becomes more potent.

Still, the plainest evidence of climate change can be too widespread to see at all. Climate monitors were needed to inform us that 2005 edged out 1998 as the hottest year on record, and to connect those records to the unfelt fact that the atmosphere contains 30 percent more carbon dioxide than it did before the Industrial Revolution.

On the other hand, extreme local events - such as Hurricane Katrina or the monsoon-like rains that brought unseasonable floods to parts of New England in May and to the East Coast from Washington to New York in June - may be too isolated to be taken as proof of climate change. And no one is likely to blame climate change for an extraordinary stretch of nice weather - like the April just passed that set records for warmth.

This spring, however, a new kind of warning emerged, one that comes from a startling source, very close to Connecticut's heart. After years of silence, the U.S. insurance industry is waking up to climate change. Given the industry's historic caution and skill at predicting risk, the alarm it is sounding may be more persuasive, or scary, than any dozen scientific studies.

The alarm takes the form of reports and pronouncements by some of the industry's biggest names. In April, Marsh Inc., the world's largest insurance broker and risk consulting firm, published what amounts to a 30-page primer on climate change, warning of its hazards while pointing out opportunities for profit in new "green" markets.

AIG, the American International Group, followed in mid-May by becoming the first U.S. insurer to adopt a policy explicitly addressing climate change. Recognizing the worldwide drive to cut greenhouse gas emissions, AIG said it was creating an Office of Environment and Climate Change. Based in New York, AIG, with $850 billion in assets, is often described as the world's largest insurance company.

A week later, Risk Management Services (RMS), a leading supplier of actuarial models to the industry, set a precedent when it released its updated model for calculating future hurricane damage. The model factored in climate change for the first time.

Then, at a mid-June conference, the National Association of Insurance Commissioners heard from a newly formed climate-change task force that met for the first time and passed a resolution saying the industry needs government help to cope with the mounting costs of natural disasters.

Even before Katrina, however, insurers were abandoning hurricane-prone areas, especially in states like Florida and Louisiana, being replaced by state-run companies that charge higher premiums. Despite the devastation it caused and the 1,600 lives it claimed, Katrina was not the most powerful nor deadliest hurricane ever. It was just the most expensive, with insured losses estimated at $40 billion.

Rita and Wilma followed on the heels of Katrina, making 2005 the country's most expensive hurricane season. Total insured losses came close to $60 billion, eclipsing the record damage done in 2004 by hurricanes Charley, Ivan and Frances. The commissioners' resolution called on Congress to create a Natural Catastrophe Preparedness Commission.

Little public notice was given to these developments. Informed observers outside the industry, however, say they're highly significant. In effect, the industry is not only bowing to the reality of climate change, it is beginning to tally its costs.

"The burden [of climate change] is falling to the insurance industry, and it's being passed along to everyone else," said Andy Logan, the insurance program manager for Ceres, an investor coalition that promotes corporate responsibility on environmental issues.

"They have no choice," Logan said of companies certain to adopt the new RMS hurricane model, "They have to deal with climate change."

Evan Mills, a government scientist who is an internationally recognized expert on insurance-loss prevention, said insurers thrive by gauging risk. But in a rapidly changing climate, risk becomes much harder to predict.

"Old risk models worked on the idea that the future would be like the past," Mills said. The new models "are a recognition the future may not be like the past. That is the touchstone and that is confounding to the modelers and actuaries where price is based on past history."

Mills works at the U.S. Department of Energy's Lawrence Berkeley National Laboratory in California. Last summer in the journal Science, he published a paper titled "Insurance and Climate Change" that noted that the industry is the world's largest, with $3.2 trillion in annual revenues, and therefore a "lightning rod" for disruptions to all sectors of the global economy.

"Business and science meet in the wake of disasters," Mills wrote. After analyzing the worldwide rising cost of weather-related disasters, he made this prediction: "As the globe warms, climate change puts a chill on the insurance market. Insurance ceases to be the world's largest industry."

Among the forces that converged to spur the U.S. industry to finally react to climate change, the most meaningful is reflected in a single sentence in AIG's policy statement:

"AIG recognizes the scientific consensus that climate change is a reality and is likely in large part the result of human activities that have led to increasing concentrations of greenhouse gases in the earth's atmosphere."

"That's actually a big step," said Alice LeBlanc, who drafted the company statement and is in charge of its new program.

She said the scientific consensus AIG accepts comes from two groups, the United Nations International Panel on Climate Change and the joint national academies of science in 11 countries, including the United States. The U.N. panel's report, reflecting the opinion of 2,500 scientists, dates from 2001. But the lesser known national academies' statement was issued last

June. It called on world leaders to "acknowledge that the threat of climate change is clear and increasing."

"It's almost an urgent statement," LeBlanc said.

The other forces referred to in the Marsh report and the AIG statement have more to do with finance and public policy than science.

Many nations, especially in Europe, have begun capping their carbon-dioxide emissions. This is in keeping with the 1997 Kyoto Protocol that took effect early last year after Russia ratified it. Since then, a so-called "carbon market" has emerged for buying and selling carbon credits based on whether companies are above or below their emission targets. The World Bank estimates the market grew to $10 billion in 2005, making carbon credits a commodity more valuable than the $7 billion U.S. wheat crop.

Why U.S. insurers should care about power plant emissions in Europe may not be obvious. But as Logan of Ceres notes, "the insurance industry is a strange creature. They're half mutual funds and they're half insurers."

For companies with global reach, the new financial landscape means the fortunes of their foreign customers, and investments, may rise or fall depending on how they manage the economics of climate change.

The same logic has led U.S. institutional investors to use their clout as stockholders to pressure insurers and other American companies to reckon with climate change. One of the smaller, but more active, of these investors - with $23 billion in assets - is the office of Connecticut State Treasurer Denise Nappier.

Last month, Nappier was named one of the "100 most influential people in finance" by Treasury and Risk Management Magazine. She's made Connecticut part of the Investor Network on Climate Risk, an arm of Ceres whose members control more than $3 trillion in assets.

Nappier is routinely quoted in the network's press releases, such as one last month announcing that 28 network members were renewing a demand that the U.S. Securities and Exchange Commission require all publicly traded companies "to disclose the financial risks of global warming" in their filings.

"The SEC needs to treat the disclosure issue with the seriousness it warrants," Nappier said, "because unresponsive regulations can lead to economic disaster."

Nappier was instrumental in founding the network. It grew out of a 2003 business summit on climate risk at the U.N. that she promoted and then presided over as co-chair with former U.S. senator Timothy Wirth. At a follow-up summit in May 2005, Nappier shared the spotlight again with Wirth and former vice president Al Gore.

Neither gathering got anywhere near the media coverage given "An Inconvenient Truth," the documentary film about Gore's obsession with climate change. Nor did another landmark conference that took place last October in Hartford. Billed as "the first-ever summit on climate risks and opportunities," it was convened by Nappier and the state commissioners of insurance and environmental protection.

Their October meeting qualified for "first-ever" honors thanks to a hurricane named Katrina. The storm inundated New Orleans just before the National Association of Insurance Commissioners was to fly into the city for its own first climate-change meeting.

A massive catastrophe such as Katrina is like a "one-two punch" for insurers, Nappier said. First it erodes their underwriting profits from premiums. But then it can knock down the value of their investments by disrupting business in unexpected ways. The huge spike in gasoline prices after Katrina is an example of the storm's secondary fallout.

The weather threatens the state of Connecticut's investments, too. And the state's portfolio also includes companies at risk from emissions regulations, such as Ford Motor Co. and American Electric Power, the Ohio-based utility that is the nation's largest producer of carbon dioxide.

Nappier's office has taken the lead in filing shareholder resolutions with both companies, last year winning their promise to prepare climate-change reports.

Nappier's own awakening to the idea that climate change carried financial risk was slow. As a former Hartford city treasurer in charge of its pension funds, she recognized the health dangers from traditional kinds of environmental pollution.

"I mean, it seems ironical to me that you would use pension fund assets in a manner that limited the life span of the beneficiaries of that fund," she said.

In 2000, midway through her first term in the state post and in the wake of a kickback scandal involving her predecessor, Nappier had her office adopt corporate proxy voting guidelines focused on executive pay, financial disclosure and the environment. She hesitated to act on global warming, though, until she saw that "clean" companies returned good profits.

"I wasn't thoroughly convinced that climate risk would have an impact on my portfolios, and I couldn't quantify the risk in financial terms. So I offered the [2003] summit as a way to continue our dialogue with the environmental community," Nappier said.

"We didn't want a heavy discussion on the environment. We wanted to talk about climate change as it relates to money."

At the summit, she said, "the people who make buy-and-sell decisions" were briefed on the latest science by John Holdren, a Harvard University professor. One set of Holdren's slides was a kind of epiphany for Nappier.

"Visuals always help. And one of the visuals I remember was the fires in California. And he showed how there was a correlation of the increasing frequency of wildfires in California and the warming of our planet," she said.

A lot of business people came to the summit believing climate change posed some risk, Nappier said. "But I don't think folks realized how significant that risk is, or that it's the kind of risk you can get a hold of tomorrow when it happens."

European insurers have long led their U.S. rivals in expressing alarm about global warming today and tomorrow. In June, Lloyd's of London issued one of the most dire warnings yet. In releasing a report titled "Climate Change: Adapt or Bust," a Lloyd's director said, "If we don't take action now to understand the changing nature of our planet and its impact, our industry will face extinction."

Europe already has experienced its own stunning weather event, one far deadlier than Katrina. In the summer of 2003, a continental heat wave, many degrees beyond normal, was blamed for the deaths of 22,000 to 35,000 people and nearly $14 billion in crop damage.

The content of Lloyd's report, however, doesn't differ much from the more muted "Risk Alert" on climate change that the broker Marsh Inc. issued in April. Both reports call for the industry to change the way it does business and named the usual dangerous suspects: melting ice sheets, rising sea levels, more damaging hurricanes.

The longer Marsh report even cites some of the most recent and disturbing scientific findings. One is that the Greenland ice sheet is melting twice as fast as it was a decade ago. Up to 2 miles thick, the ice sheet contains a tenth of the world's fresh water. If it were to melt entirely, sea levels would rise 20 feet.

As for hurricanes, the Marsh report highlights the new research of MIT professor Kerry Emanuel who concluded that only ocean heating from global warming can explain the extraordinary sequence of storms in the past two years. Emanuel's opinion carries extra weight because he had been considered neutral on the dangers of global warming. The Marsh report says a single strong storm in the future might alone cause more than $100 billion in damage.

Marsh also warns companies of the risks here from climate-change lawsuits and probable emissions caps. Connecticut plays a role in both prospects. It is a lead plaintiff in probably the most significant climate-change lawsuit. It seeks to force the federal Environmental Protection Agency to regulate carbon dioxide (the "oxygen" that plants breathe) as an air pollutant. Last month the U.S. Supreme Court agreed to hear the case.

Connecticut also is one of seven Northeastern states in the six-month-old Regional Greenhouse Gas Initiative that mirrors the Kyoto agreement. It requires area power plants to cut their overall carbon dioxide emissions below 1990 levels and sets up a carbon credit-trading system.

Gary Guzy, senior vice president for Marsh's Emerging Environmental Risk Practices, said such state actions as well as pressure from institutional investors (like Nappier's office) were among the "spectrum of risk issues" that led the company to issue its report. Others were the impact of Kyoto and Katrina.

"To some extent Hurricane Katrina crystallized the concern about the potential impact of severe weather events," Guzy said.

The Marsh report also cites the widely influential work of Evan Mills, who lectured at Connecticut's summit and co-authored a report for Ceres titled, "Availability and Affordability of Insurance under Climate Change: a Growing Challenge for the U.S."

"I've been on the trail a long time. I really think there have been profound developments in the last six to 12 months, even more than in the previous 12 to 24 months - and for the better as far as I'm concerned," Mills said last month just before leaving for a climate change conference in Iceland.

He ticked off the insurers' actions and reports from science that, he said, "should be trickling out into people's minds and the corporate world."

One "huge advance," he said, is research showing that 84 percent of the warming already caused by greenhouse gases has been absorbed by the oceans, rather than the atmosphere. A startling minor discovery is of new "glacial earthquakes," he said. "They're caused by glaciers suddenly shifting and rocking the Earth, enough to register on the seismic scale. It's indicative of more rapid melting than expected."

The faster melting glaciers, like suddenly stronger hurricanes, are part of "a trend of trends" of climate change so speeding up, Mills said, "that you will systematically underestimate the impacts."

Katrina was a signal event because, Mills said, "We experienced that the inconceivable can happen." Yet no scientist would claim that climate change caused Katrina.

Climate change is about emerging patterns. In his insurance research, the pattern Mills finds is that the industry's losses are mounting in predictable lock step with the temperature and the damage from weather-related disasters. Besides mega-storms, he counts wildfires and lightning strikes. Two fires in California in 2003 (probably the ones that impressed Nappier) caused $2 billion in losses. He estimates lightning strikes start half of all wildfires and cause power outages costing $1 billion a year.

These are direct costs and do not include the income lost from withdrawing from markets or conceding markets in developing countries. Nor does the movement of people to disaster-prone coastal areas explain the sharp rise in insurance losses, Mills notes, in answer to "climate contrarians."

Mills is not all doomsday. Like Nappier, AIG and Marsh, he says the industry can lessen the damage of climate change by acting in the same spirit that it promotes fire and auto safety and underwriting standards. Energy-efficient lighting is another of Mills' areas of expertise.

No matter what happens, however, there is no escaping the bill for climate change. Worldwide greenhouse gas emissions are increasing, not decreasing. And the amount already in the atmosphere guarantees further warming.

"It's an illusion to think we have the freedom to choose about paying. You pay for the impact [of climate change] or you pay for the cost of lower emissions," Mills said, referring to the cost of complying with the Kyoto Protocol.

"Doing nothing doesn't cost nothing. The illusion is [that] there is cost of responding versus no cost of `wait and see.' Because if you wait and see, you have more costs because you have more impacts," he said.

"Look at Katrina. What if we built better levees?"