## Environmental Finance

MARKET SURVEY WEATHER & CAT RISK

## The storm passes by

Depression hit the weather and catastrophe risk markets in 2009, but a recovery is under way and the underlying business remains strong. **Christopher Cundy** reports

glance at the leading indicators for the weather risk management business might lead one to think that it had been seriously wounded by the financial crisis.

The Chicago Mercantile Exchange (CME), the dominant platform for trading weather derivative contracts, reported volumes down 43% year on year, with 405,000 contracts traded between January and October 2009, compared with 709,000 in the same period last year. The industry's trade body, the Weather Risk Management Association (WRMA), released its survey in May showing the notional value of the weather market was \$15 billion in 2008/09 – the lowest for four years and down 53% from 2007/08.

But these figures do not wholly capture the business coming from 'end users', those companies or organisations that have weather risk to hedge – for example, a natural gas distributor that wants to avoid the loss of sales that would result from an unusually warm winter. Here, brokers and dealers say that demand has grown, or at least remained steady.

No exchange was spared the effects of the financial crisis, says Felix Carabello, director of alternative investments and energy at CME Group in Chicago, runner-up as Best Exchange in weather risk. "We were negatively affected in terms of volumes," he says, blaming the decline on the withdrawal of risk capital, thus reducing the ability of people to participate in the market.

"The effect [on volumes] when you have capital coming out of the market is exponential," says Kendall Johnson, New York-based managing director and global head of reinsurance and weather derivatives at Tradition, voted Best Broker in Europe and Asia.

The brunt of the decline seems to be down to hedge funds and energy traders, which have been hit by investor redemptions or which have moved cash to take advantage of more profitable opportunities in other markets.

Some of the energy traders played on the

relationship between natural gas and weather, since cold weather increases demand for gas and pushes prices up. But the recession – and generally mild weather in the US – has created a glut in the natural gas market and the correlation between weather and gas has disappeared.

"That's one of the reasons we haven't seen those guys that would have traded nat gas in the market so much," says Nick Ernst, head of Evolution Markets' weather derivatives group. The White Plains, New York-based brokerage firm was voted Best Broker, North



Nick Ernst, Evolution Markets: end-users coming to the secondary market

America, and also won Best Broker of catastrophe risk management products.

With fewer counterparties in the market and heightened concerns about credit and counterparty risk, some participants say it has been more challenging to trade – but equally, others claim no extra difficulties.

"The weather markets haven't completely recovered, but it's definitely rebounded from where we were last year. There have been 20% more trades put on going into this winter season than in 2008," says Johnson at Tradition. This should have a snowball effect

WEATHER	<b>RISK MANAGEMENT</b>		
	Winner	Runner-up	
North America			
Best Broker Best Dealer	Evolution Markets RenRe Energy Advisors	Tradition Galileo Weather	
Europe			
Best Broker Best Dealer	Tradition RenRe Energy Advisors	Evolution Markets Swiss Re	
Asia			
Best Broker Best Dealer	Tradition MSI GuaranteedWeather	Evolution Markets –	
Global			
Best Advisory/Data Service	Speedwell	RMS	
Best Law Firm Best Exchange/Online Platform	Clifford Chance WeatherBill	– CME	

on volumes during winter, he says, as "more seasonal trades means people will be trading more monthly contracts."

"This year has not been as robust a year as one might like. But I feel that there have been more players coming into the market, either dealing directly or coming to us for auction services," Johnson adds.

"The only folks that didn't react to the recession were end-users" who have natural risk to hedge, says the CME's Carabello.

The experience this year at RenRe Energy Advisors in Houston, Texas – winner of Best Dealer in North America and Europe – bears this out. "Overall, market volume is going up. Deals are getting a bit larger," says RenRe's Bill Windle. "I don't get the sense the weather market was impacted disproportionally [by the financial crisis and recession]. We have not seen our historic client base step back."

"This has been a year of good, solid growth in the structured, over-the-counter side," says Stephen Doherty, CEO of UKbased Speedwell Weather Derivatives, winner of Best Advisory/Data Service.

Things have been going well "after what looked like a scary start to the year", with Doherty reporting growth in the three parts of his business – data provision, forecasting and trading software, and weather risk placement. Speedwell recently hired an additional person for its US office, where the firm is doing more business, he says.

Of particular note is the renewed demand for software, Doherty says. "That's a leading indicator. When people start thinking about systems, it means they are going to get involved."

rnst at Evolution Markets says he is seeing more end-user business coming directly to the secondary markets. "I can't say if this is new business or was business going to dealers already, but what it does tell me is that clients are concerned about weather risk pricing and less concerned about laying off basis risk. They are willing to keep that internally."

Basis risk is the difference between a client's actual exposure and the risk covered by a hedging contract – and clients tend to minimise this by going to a dealer for a customised contract, rather than buying standardised contracts such as those typically listed on exchange.

Europe remains a distinct second to the

US in terms of the size of the market, but this year it has been closing the gap, says Windle at RenRe.

"In Europe, we see a large and more diverse demand from the end-user community for fairly sizable transactions, in both weather and cross-commodity transactions," the latter referring to deals where the payout is linked the price of a commodity, for example natural gas, as well as the weather.

Participants have noted growing involvement from European energy firms including E.ON and RWE.

"There is a lot more end-user business coming in to attract a traded market," notes Ernst at Evolution Markets. January–October volumes for the CME's European heating degree day contracts (which allow participants to bet whether winter season temperatures at a particular location will be higher or lower than the historic average) have almost trebled, to 14,000 compared with 3,850 in the same period of 2008.

In Asia too, business has been good, according to Brad Davis, co-CEO of MSI GuaranteedWeather, winner of Best Dealer, Asia. "We have continued to see a pretty steady stream of activity out of Japan. We have seen growing interest in other South-

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2009: Europe

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## Environmental Finance MARKET SURVEY WEATHER & CAT RISK

east Asian countries – Singapore, Hong Kong, Indonesia – spanning from traditional construction or utilities as well as transactions in agriculture," he says.

The firm became a subsidiary of Mitsui Sumitomo Insurance (MSI) two years ago and "as we have been further integrated into the company, we are gaining additional footholds", Davis says.

Australia has become a focus of weather risk activity, brokers and dealers say, mainly among energy companies that participate in a particularly volatile power market. The CME launched contracts in Australia – which haven't traded yet – and this year, *Environmental Finance* gave its weather risk transaction of the year award to Marsh for structuring a deal to hedge the output from a wind farm operated by Australia's Origin Energy (see *Environmental Finance*, July–August 2009, page 27).

That deal was unusual for being structured in half-hourly strips, but Doherty at Speedwell identifies this as a growing trend. "There has been an increase in granularity of transaction in terms of time period. We are seeing more interest in hourly data and seeing more evidence of hourly trading going on."

"Deals are getting funkier. There's a growth in combination of weather and energy transactions. Not just weather and gas, but weather and water [rainfall]," he adds.

laude Brown, a London-based partner at Clifford Chance, voted Best Law Firm for the sixth year in a row, also notes this trend towards "a lot more commodity hedges" as well as more products targeted at the retail level that are "not complicated to do and have no complicated claims process".

Much of his work this year has involved figuring out how proposals to reform the financial sector, in the light of the recent crisis, will affect the weather markets, and the matter is being taken up by WRMA. "The regulatory proposals in the US and Europe, while they are not particularly directed at weather derivatives, are going to have an impact," he says.

"I'm pleased that as an industry we are



Shiv Kumar, Goldman Sachs: impressive return for cat bonds

watching and presenting a voice on the legislation that's being proposed," says Tradition's Johnson. "After a crisis, one can expect a knee-jerk reaction. [But] I'm cautiously optimistic that sense will prevail."

Bill Windle at RenRe adds: "We are all for the overall integrity of the market, but what we hope is that there aren't any measures that overly burden the end user or hedger. I think it could have a positive influence, but we would be concerned about unintended consequences."

Meanwhile, catastrophe (cat) risk markets suffered as badly as other financial sectors in the crisis.

Insurance and reinsurance companies face massive payouts in the event of a major catastrophe, such as a hurricane or earthquake, and cat bonds have become increasingly popular tools to allow them to transfer some of that risk to investors.

However, no cat bonds were issued for a six-month period following the collapse of Lehman Brothers last September.

CATASTROPH	E RISK MANAGEMENT		
	Winner	Runner-up	
Best Structurer/Arranger	Goldman Sachs	-	
Best Broker	<b>Evolution Markets</b>	Tradition	
Best Advisory/Data Service	AIR	-	
Best Exchange	CME	IFEX	

Investors became nervous about the safety of their money, as cat bonds guaranteed by Lehman faced default as the company was declared bankrupt. But new structures were developed to avoid a similar risk in future, and investors welcomed them with open arms.

"The market has staged an impressive display to come back from where it was at the end of last year," says Shiv Kumar, managing director and head of insurance securitisation at Goldman Sachs in New York. The firm was voted Best Structurer/Arranger in the survey and was involved in seven of the 14 cat bond transactions – worth a total of \$2.4 billion – completed by the end of November this year.

he market saw new entrants – US insurer Assurant issued a 150 million bond and state insurers in North Carolina issued one for

\$200 million – and new risks covered, such as Pacific coast hurricane risk in a deal on behalf of the Mexican government to fund disaster relief efforts (see *Environmental Finance*, November 2009, page 6).

"We think this will go to about \$3 billion by the year end. It's far better than we would have expected at the same time last year," says Kumar, noting that 2010 will likely see a further increase in issuance, as deals from 2007 - a record year – are maturing (cat bonds typically run for three years) and pricing is becoming more attractive for reinsurers.

Following on from the Mexico deal, "it's highly likely that a number of other developing countries exposed to natural cat risk will look to the cat bond market to raise relief funds. A number of discussions are going on with the World Bank and other countries," says Kumar.

Helping the optimism was the lack of a major earthquake or hurricane in the US this year. Ernst at Evolution Markets says the brokerage firm has closed a lot of catastrophe derivative and swap deals, both OTC and through the exchanges.

But one of the issues holding back the development of the market is that derivative products aren't given the same treatment as insurance contracts in company accounting. "That's the biggest hurdle," Ernst says.

"The cat risk market is alive and doing very well," says Johnson at Tradition. However, so far, most of the volume is going through the OTC market. "The fact of the matter is that it is not an exchange-based market. Less than 0.01% of cat risk is exchange traded. So looking to the exchanges as an indication of activity in the markets is misleading.

"That being said, we are actively involved in the reinsurance markets and we are supporting the exchanges where they can add value. Tradition completed the largest trade to date on the IFEX this year."