The cat's whiskers?

ONCE A FAIRLY RESTRICTED MARKET, CATASTROPHE BONDS AND OTHER INSURANCE-LINKED SECURITIES NOW APPEAL TO A GROWING INVESTOR BASE. **GRAHAM BUCK** EXAMINES THEIR STRENGTHS – AND THEIR RISKS.

Last year set a dismal record in terms of losses arising from natural catastrophes. The year began with vast areas of the Australian state of Queensland hit by flooding. Subsequent months saw a devastating earthquake in New Zealand, north-east Japan rocked by an earthquake and tsunami, the worst tornado season for years in the southern US and severe floods in Thailand during the monsoon season.

The succession of disasters racked up a worldwide tally of around $380bn in economic losses, according to the world's biggest reinsurer Munich Re. The figure was substantially higher than the total of $220bn recorded in 2005, previously the most disastrous year.

With insured losses standing at $105bn, 2011 was also the costliest ever for the insurance and reinsurance industry. Only the relatively low losses suffered by the industry from the earthquake in Japan – where the state-backed Japan Earthquake Reinsurance scheme bore the main brunt – prevented an even higher loss figure. However, while the scale of the New Zealand quake was not as great as Japan's it resulted in greater payouts by insurers.

With two of the past seven years racking up huge insurance losses from earthquakes, floods, hurricanes and tornadoes, a market has developed for financial instruments that transfer insurance risk to the capital markets and whose values are driven by specific insured loss events. As these instruments are linked to property losses resulting from natural catastrophes, the returns that they provide are uncorrelated to those of the general financial market.

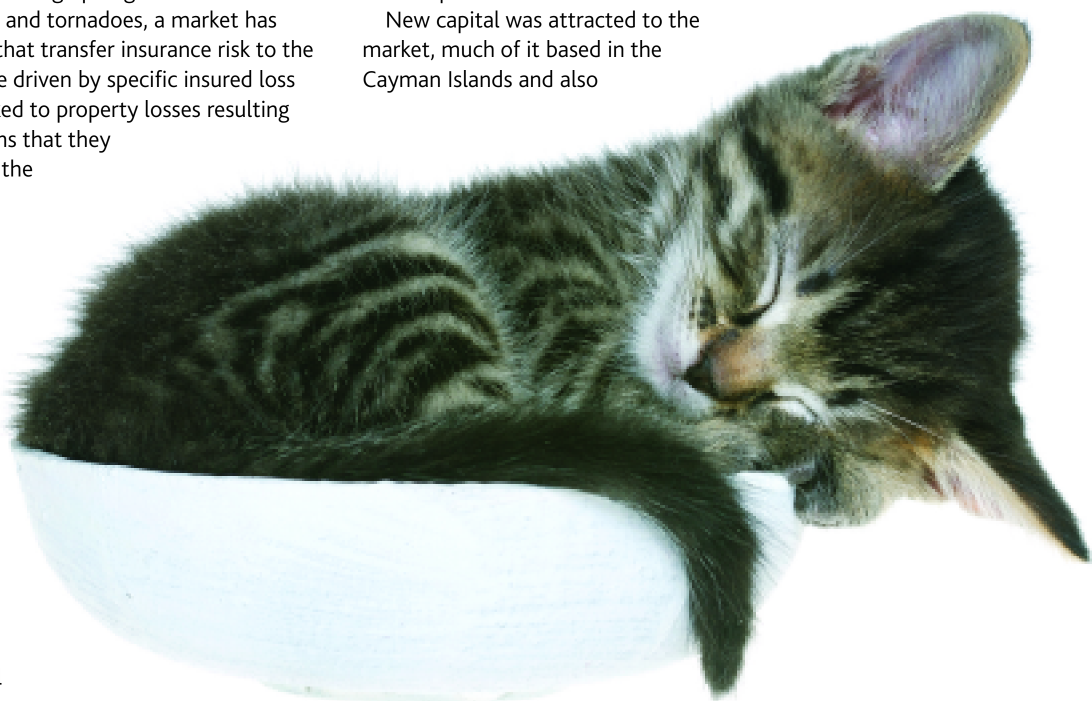
The potential for this market was initially recognised by US entrepreneur Warren Buffett, who pioneered the concept of catastrophe or "cat" bonds in the mid-1990s. In September 1992 Hurricane Andrew devastated property in Florida and along the US east coast, resulting in claims that bankrupted several insurance companies and badly dented the balance sheets of several more.

The storm demonstrated that insurers had underestimated the chances that areas of high-value real estate might be badly hit by natural disaster and also that the industry's loss prediction models needed updating. The potential cost of disaster had suddenly outstripped the ability of the insurance industry to protect against it. In a precursor of Solvency II and Basel III, regulators insisted that insurers set aside more equity capital against extreme events, with the result that the industry transferred much of its disaster risk to the capital markets, which have the ability to absorb mega-losses.

Cat bonds were devised as the vehicle. They are simple, high-yield debt instruments typically carrying a maturity of three years, and sometimes five. Issued by insurers and reinsurers, the concept was quickly taken up by Lehman Brothers, which recognised that cat bonds and other instruments provided a means for capital market investors to buy catastrophe risk at favourable prices.

The three hurricanes – Katrina, Rita and Wilma – that hit the US in 2005 and devastated the city of New Orleans gave added impetus to the cat bond market. It also spurred innovative development of other varieties of insurance-linked securities (ILS) such as reinsurance sidecars, industry loss warranty derivatives and catastrophe futures contracts.

New capital was attracted to the market, much of it based in the Cayman Islands and also



Bermuda where a number of special-purpose insurers were established as ILS vehicles. Several were set up to take advantage of the increase in insurance premium rates post-Katrina. A further impetus for growth was the increasing use of indices to transfer insurance risk to the capital markets.

Growth over the subsequent seven years has not always been consistent. The market peaked in 2007, when ILS issues totalled $8.5bn. In 2008 issuance fell off sharply as hedge funds beat a retreat from the market and a series of bonds with Lehman Brothers as a collateral counterparty failed.

Growth has been volatile, but interest has steadily risen. Cat bonds have many virtues as an alternative investment. They offer historically consistent and attractive risk-adjusted returns, considerable potential for diversification and minimal exposure to credit cycles, equity markets and most other mainstream market risks. The main risk is that an extreme natural catastrophe can result in a total loss.

$300M CAT BOND WIPED OUT This was most graphically demonstrated last year when a $300m cat bond on behalf of Japanese agricultural cooperative Zenkyoren, issued in 2008 by reinsurance giant Munich Re, was completely used up by loss payments following the March earthquake and tsunami. And had a 7.4 magnitude earthquake that struck southern Mexico on 20 March this year occurred slightly further north it reportedly would have been serious enough to trigger a full payout on a multi-catastrophe Mexican bond issued three years ago.

Total losses have so far proved a rarity, though, and in return for accepting this degree of risk ILS investors can expect an attractive rate of return with an inflation hedge and relatively low volatility as well as a consistently low correlation to other assets. Reports on the cat bond market for 2011 suggest that many investors opted for higher-risk deals.

These strengths are attracting a more diverse group of investors to ILS offerings. Reinsurance giant Swiss Re has reported that specialist investors are increasingly being joined by life insurers, pension funds and sovereign wealth funds.

Last July the BBC's £9bn pension scheme announced that it had appointed Bermuda-based Nephila Capital to manage an ILS portfolio on its behalf. Nephila reports that pension fund money is now eclipsing its original investor base of funds of funds and family offices. Investors are typically committing to a period of three years rather than only 12 months.

Swiss Re forecast at the start of the year that the market for cat bonds would grow during 2012 for the first time in five years. Indeed 2011 began promisingly and more than $1bn of deals were completed in the first quarter before the Japan earthquake and Europe's deepening sovereign debt crisis blunted investor appetite. Both ILS sponsors and investors also needed time to digest a new risk model for US hurricanes, which suggested that the probability of serious property damage being caused by such events had been seriously underestimated in the past.

Swiss Re's predictions have so far been borne out by the first quarter of 2012, which got off to an even stronger start than 2011 with a record $1.493bn of cat bond and ILS issuance. They ranged from a $150m issue by Aetna on medical benefit claims to a new $300m bond by Hannover Re for Zenkyoren, encouraged to return to the market for Japan earthquake after the total payout of its 2008 bond.

The majority of the others were for European windstorm and US natural catastrophe events such as California earthquake and US-wide hurricane. Such was investor demand that several transactions managed to secure more capacity than was initially requested and the offering was upsized.

Broking group Aon Benfield forecasts that with an active forward pipeline of new cat bond deals, total issuance for the year is likely to exceed $5bn against $4.6bn in 2011. April commenced with four further issues totalling $695m including a $240m issue by German insurer Allianz for US hurricane, US earthquake, Canada earthquake, Caribbean hurricane and Mexico hurricane.

As Aon Benfield notes: "Spreads in these securities appear attractive to yield-hungry investors, as global credit-linked interest rates remain at very low levels. Insurer sponsors continue to bring incremental new demand more often to this market than the traditional market where they fear adding capacity demand to a market that is, at the least, talking about price uncertainty."

Aon Benfield's report suggests that with the natural catastrophe risk ILS market the next big thing is longevity risk. Swiss Re has already paved the way, transferring $50m of longevity trend risk to the capital markets in late 2010 through its Kortis Capital securitisation programme.

RIPE FOR TAKE-OFF "The combination of transparent accounting (pension liability marked-to-market through the income statement), low interest rates, and awareness of longevity risk makes conditions ripe for this market to take off," the authors predict.

If the market continues to flourish, it will continue to attract new players. Barclays Capital has been one of the most recent to join, launching an ILS programme last October as an extension to its existing event-linked swaps business.

"We have seen increased interest from corporates and governments in hedging their specific risk exposures via the ILS market since the Japan earthquake," says Daniel Brookman, head of event-linked products for Barclays New York. He adds that low transaction costs will encourage a broader range of sponsors to come to market more quickly and frequently than previously.

Also bullish on future demand for ILS products – and particularly for cat bonds as another of the pioneers of this asset class is John Seo, co-founder and managing principal of Fermat Capital Management. "They work like an equity and pay double what most people think of as an equity risk premium but have half the tail risk," he says. "You can use it to enhance your yield while diversifying your risk. It's an instrument that's credit-insensitive, has little to no interest rate duration, is neutral to an inflation view and boosted by increases in climate change impact."

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