

Strong demand boosts ILW market

Aon Benfield estimates the industry-loss warranty sector will hit \$8bn-\$9bn in 2012. But will it be able to absorb a continued influx of capital and will it become core rather than just complementary? Richard Wheeler looks at what makes ILWs tick

An industry-loss warranty (ILW) is an index-based hedging instrument structured as a re/insurance transaction to address peak exposures in an underlying re/insurance portfolio. The contract triggers only in the event of a predetermined insurance industry loss event (indices shown in Figure 1), reacting almost exclusively to a catastrophe event typically expressed as follows:

Territorial coverage:	US (50 states only)
Peril coverage:	Windstorm
Period:	1 June 2012 to 31 December 2012
Limit of cover:	\$10,000,000
Premium:	\$1,500,000
Trigger:	\$40,000,000,000
Index:	PCS

ILWs originally evolved from the marine and aviation market's "tonner" covers. In the 1980s the structure and applications were redesigned to work for the non-marine market in addressing peak catastrophe events. The ILW market developed steadily

but slowly during the next 25 years, and it was 2004/5 before the market had a paradigm shift in terms of volume and interest.

THE KATRINA EFFECT

The capital deficiency of the reinsurance market following Hurricane Katrina in 2005 precipitated the step change in the perception of volatility and severity of risk. This change was driven across the re/insurance sector as a whole from regulators, rating agencies and analysts to class underwriters and intermediaries.

The result was an increased demand for risk mitigation strategies during a time when capacity and confidence in retrocession products were under pressure. This led to the rapid acceptance and use of index products as a viable alternative to traditional coverage solutions for reinsurance companies (see Figure 2). The dramatic year-on-year change was further fuelled by the quick transaction time and the volume of supply entering the market and seeking allocation.

During the six years following Katrina, the ILW market matured into one of the principal means for reinsurance companies

to manage strategically their peak-zone catastrophe exposure. In the absence of a major natural catastrophe during this period, the most significant impact on the market has come from the continued increase and divergence of the supply chain and sustained increase in demand driven at the tail (low expected loss) level.

Increased appetite from entrants into the market funded from alternative capital markets was significant and now accounts for 80% of the total trade volume (see Figure 3).

LOW BETA

The motivations behind this change are fairly simple: ILWs are high-yield, low-risk products compared with other financial instruments and they are attractive in the current low interest rate environment. Also, the performance of this asset class during the 2008 global financial crisis highlighted the ILW sector's low beta characteristics.

While supply has been strong, the demand has been the key element of success for this market. The product has needed to become more sophisticated in its design and management of basis risk, while retaining its simplicity of transaction and

US:	EUROPE WINDSTORM:	REST OF WORLD:
<p>PCS: (Property Claim Services). This is the internationally recognised authority on insured property losses from catastrophes in the US, Puerto Rico and the US Virgin Islands.</p>	<p>Perils: The Perils Industry Loss Index Service provides index values for ILW transactions in respect of European windstorm and ensuing perils.</p>	<p>Sigma /Munich Re Nat Cat Service (MRNC): Sigma is published by Swiss Re's Economic Research & Consulting team and is an index used for ex-US risks. MRNC is a database for natural catastrophes through which Munich Re releases catastrophe loss estimates.</p>

Figure 1: The Principal ILW indices

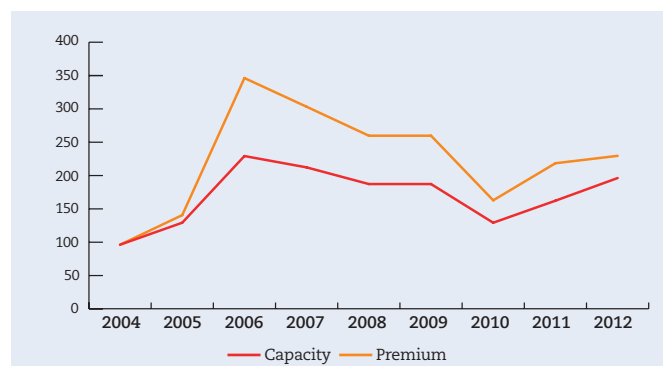


Figure 2: Growth in global capacity and premium (re-based to 100 in 2004)

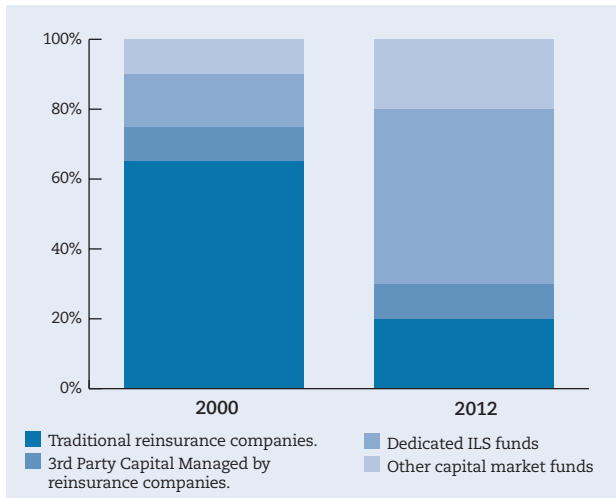


Figure 3: Change in capital supply 2000 to 2012

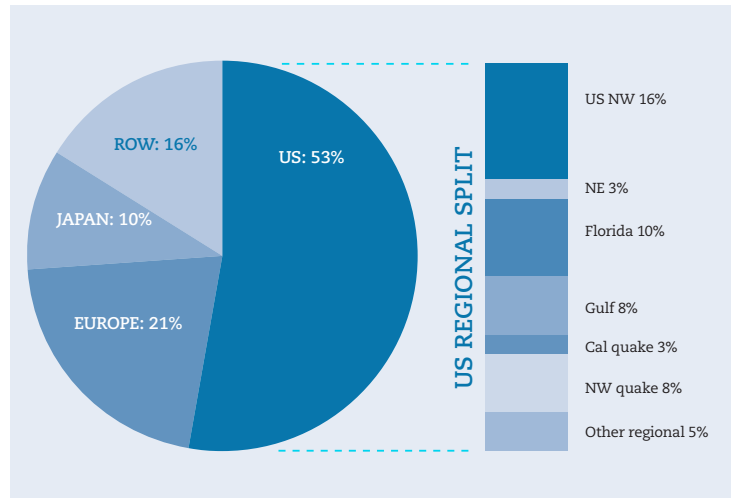


Figure 4: Market share by region

competitiveness of pricing to ensure speed and success of execution.

BASIS RISK

Basis risk is the measurement of uncertainty surrounding the spread between the buyer’s actual loss experience and the index-reported market loss which triggers the contract. The obvious concern is that the buyer’s loss does not effectively correlate to the third party index used to trigger the contract and make recoveries.

Measuring and absorbing the basis risk within an index transaction has been one of the principal hurdles that needed to be addressed. In reality, the evolution of this process was swift due to the volume of demand for retrocessional products simply outstripping the volume of supply of traditional ultimate net loss (UNL) solutions and buyers considering all alternatives.

For reinsurance companies (which are the principal source for purchasing) the increased strain on capital over the past three years has again boosted demand for further innovative and cheaper solutions. ILWs have evolved quickly to meet this change in demand and have become increasingly complex in structure in order to meet reinsurers’ needs.

US DRIVES MARKET

Exposures to US perils, particularly hurricane and earthquake, dominate

demand and transaction volume. Therefore, unsurprisingly, the US accounts for over half of current trade volume and drives the market as a whole (see Figure 4). The success of the US ILW market is principally a result of attractive pricing and stressed demand for cover following balance-sheet weakening and an increased perception of catastrophe volatility.

However, the acceptance of the index by all counterparties to the trade has also been instrumental in its growth. At 21%, Europe’s share of the market is modest, but it remains a key element for both buyer and seller. But the growth of Europe has been stunted by the absence of an independent third-party index and competitive traditional reinsurance pricing.

The development of Perils has accelerated the interest in European windstorm transactions. There are a number of other peak and non-peak structures traded, but the volume is limited by uncertainty over industry loss levels and reporting, competitive traditional reinsurance pricing and lower reinsurance portfolio exposures not driving demand.

As a result of the catastrophe events, growth of catastrophe bonds, market dislocation and limited barriers to entry, collateralised vehicles have found the progression into the ILW sector fairly seamless. There has been strong expansion of the collateralised product throughout the reinsurance sector; however, it is in the ILW

market where the effects of this increased supply have been most noticeable – the impact being broader supply of capacity (not directly related to the reinsurance sector), acceptance of single-limit transactions, over- supply in the catastrophe bond sector driving requirements for improved returns elsewhere and appetite across the pricing spectrum.

CHANGE IN CAPITAL FLOWS

There has also been a change in the composition and structure of capital flowing into this sector. Ten years ago, there was a fairly even spread between third-party capital managed by a reinsurance company (sidecar), dedicated insurance-linked securities (ILS) funds and other capital market funds active in the sector. Today, dedicated ILS funds account for almost twice as much as sidecars and other capital market funds combined.

Last year was a significant one for the ILW market. A number of critical factors contributed to create an environment where both demand and supply increased in parallel.

RMS V11

Late in 2010, the industry was preparing for the imminent release of Risk Management Solutions version II (RMS v11). This updated view of risk had a dramatic impact on the expected loss calculations for US windstorm: for example, at the 1:100 return

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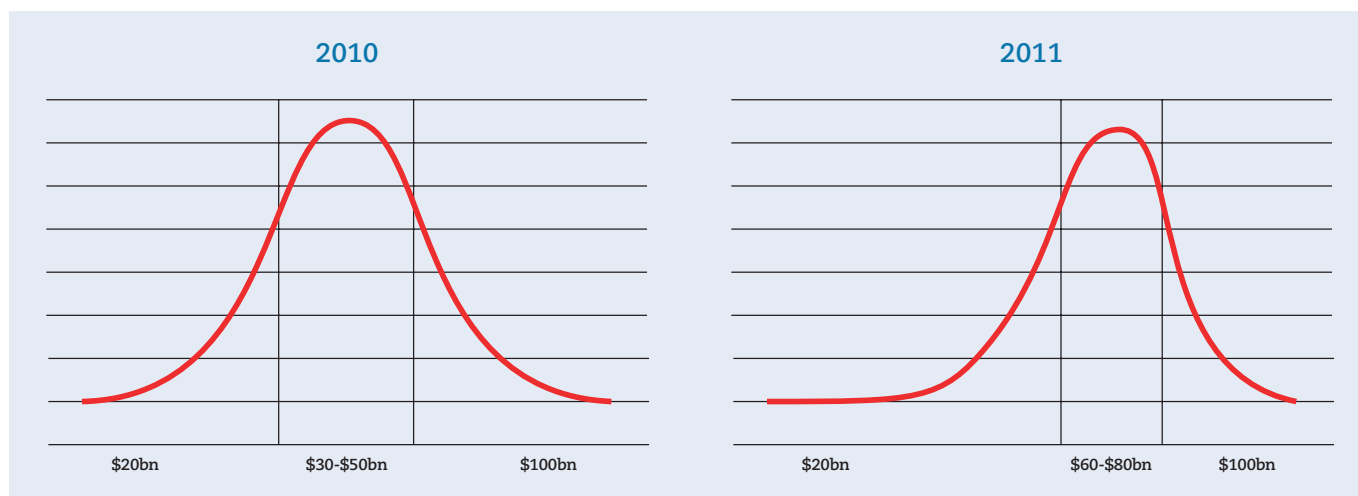


Figure 5: Volume traded against trigger level in US market

period, expected loss levels increased by over 50%. Historically, pricing an ILW was as simple as generating a return higher than the expected loss, in some cases multiples higher.

Such a significant change in the view of expected loss had an immediate impact on the pricing approach generally employed in the market. V11 has now broadly been absorbed by the market and so pricing and level adjustments have all been taken into consideration.

Last year saw over \$100bn of industry losses including earthquakes in New Zealand and Japan, unprecedented tornado activity in the US and devastating flooding in Thailand. While the loss impact on the ILW sector from these events was less than 5% of the market volume, the timing was of critical importance.

By the start of the second quarter many reinsurance companies had exhausted their traditional retrocession strategies or there was uncertainty over the amount of cover remaining; this drove them to address US wind coverage prior to the start of the wind season.

As a result of increased demand due to RMS v11 and first-quarter loss activity, pricing for US ILW triggers saw increases of up to 32%. Another noticeable change in the characteristics of the market was the increase in the median level of transactions from \$30bn- \$50bn in 2010 to \$60bn-\$80bn in 2011 (see Figure 5).

There was significant price and level adjustment for loss-impacted contracts: for example, Japan earthquake pricing was up 100% after the Tohoku earthquake. The severity and frequency of the events occurring in 2011 increased appetite to trade “live cat” and “dead cat” ILW products (see Figure 6) which resulted in the highest trade volume year-to-date covering Cyclone Yasi in Australia, the Japan earthquake, Hurricane Irene in the US and the Thailand floods.

The uncertainty in the market surrounding the development of the flooding in Thailand carried on through the 1 January 2012 renewal period. Coupled with the hardening of the retrocession market and general performance pressure in the reinsurance sector, ILW supply/demand held firm, which therefore limited price movements.

The circumstances of 2011 led to increased capital flowing into the sector. The pull was to take advantage of the anticipated

underlying pricing environment post loss and non-correlating asset performance. The push was the continued volatility in the equity and bond markets and the persistent low interest-rate environment across mature markets.

OVER-SUPPLY OF CAPITAL

Unfortunately, the underlying pricing movements have not materialised to the degree expected, reducing the appetite to purchase non-core reinsurance products. Therefore, the market is now significantly over-supplied with capacity. The obvious impact has been on pricing which has reduced approximately 15% since 1 January, and our expectation is that it will continue on this downward trend in the absence of a catalyst.

Scenario testing is an important method of considering the resilience of the industry. In the event of a major US hurricane this year, what quantum of loss is required to move the market? A \$5bn US windstorm

LIVE CAT	DEAD CAT
A Live Cat contract is an ILW which is transacted immediately prior to or during a catastrophe event – for instance, when a hurricane is being formed in the Gulf of Mexico transactions will start trading on this specific named storm only. The uncertainty around its size, Saffir Simpson scale and landfall track all contribute to the level and pricing dynamic.	Dead Cat contracts are traded based on a catastrophe event which has just occurred, but for which the total industry loss has not yet been finalised. These tend to focus specifically on an earthquake event given the nature of occurrence and lengthy development period.

Figure 6: Live Cats vs Dead Cats

event would be likely to continue the downward trend in pricing but at a slower pace. A \$15bn US windstorm event would impact the profitability of most reinsurance markets for 2012.

Depending on the landfall track into the US, it would not have a meaningful impact on the ILW market capacity traded; however, it would end the downward trend in pricing. If the track concentrated on the peak wind states, such as Florida, this would be a major inflection point in the market, and a stronger reaction could follow. A \$50bn US windstorm event would significantly change the market and increase prices by up to 20%. Crucially, what has not been explored above is the potential correlation effect a modest US earthquake would have on the equity and reinsurance markets simultaneously.

Given the size and value of the US insurance market, this territory will continue to dominate the ILW sector. Taking a medium-term view, the market still has a wide spectrum of development available. The inhibitors to international growth of ILW products have been: the absence of a widely

accepted index, over-supply in the original reinsurance markets impacting the pricing environment, and lower insured values relative to exposed catastrophe perils.

The establishment of Perils in the already mature European market has facilitated growth of ILW products for European windstorm, and this sector will continue to develop in the future. However, the increase in insurance penetration across emerging economies and the frequency and severity of losses in these regions over the past two years has driven interest in trading outside the US and Europe. Countries such as China, which are exposed to most natural perils with a rapidly developing re/insurance market, may indeed become a major peak-zone catastrophe market of the future.

QUESTIONS ON THE FUTURE

While the market is taking hold, we can pose some searching questions:

- Will the index market be able to absorb the continued influx of supply from a larger pool of capital?
- How will the supply side react when there is an event outside expected

modelled parameters?

- Will the interest in catastrophe exposure from a diverse capital pool be consistent when other financial markets develop or improve?
- Will the index sector move from complementary to core?

These questions remain to be answered as we progress through the next phase in the ILW sector's evolution but, for now, it remains a successful complementary strategy to catastrophe management. Supply and demand will continue to be the focus: fluctuations in demand for peril-and territory-specific solutions vis-à-vis the inconsistent timing and volume of supply into the sector increase the volatility of pricing. This, coupled with the quick execution time, creates an environment which is difficult to control, is sensitive to marginal changes in the environment and produces reactive post-event readjustments. ■

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