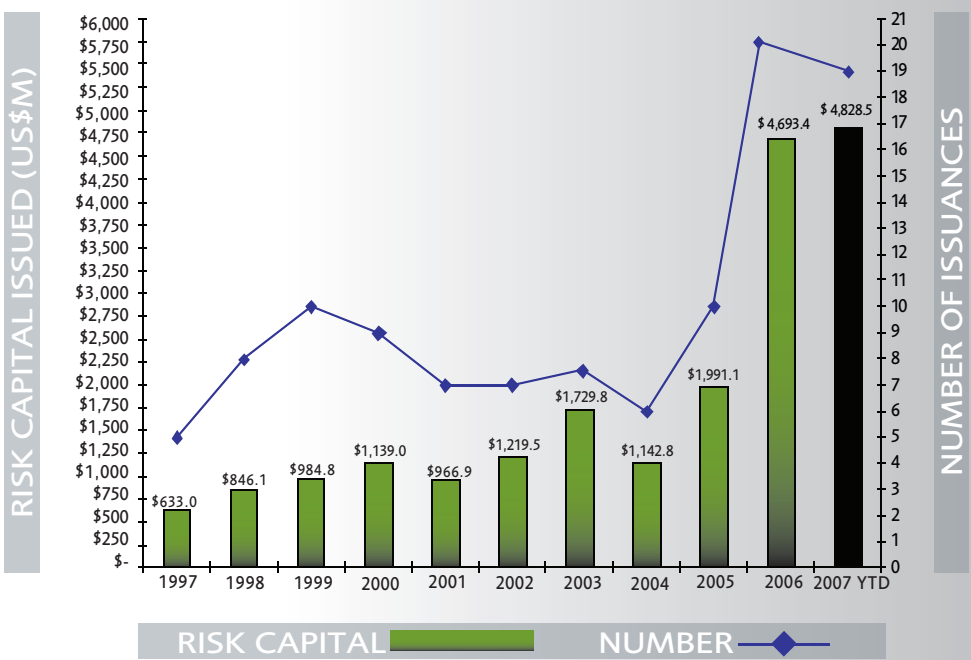
Bonds keep rollin'

With cat bond issuances set to smash records again in 2007, Christopher McGhee examines the increasingly important role of these structures in re/insurance space

FIGURE 1: ANNUAL NUMBER OF CAT BOND TRANSACTIONS AND ISSUANCE VOLUME



Source: GC Securities Proprietary Database
Within any single year, takedowns from shelf offerings are consolidated and considered as one transaction.
Takedowns from individual shelf offerings, occurring in different years, are considered separate transactions in the year in which the takedowns are completed.

Catastrophe bond issuance in 2007 has already outstripped the record-smashing issuance of 2006. At the time of writing, $4.8bn had been issued in 2007 – slightly more than the $4.69bn issued in 2006, which itself was dramatically higher than the previous record of $1.99bn set in 2005 (*see Figure 1 above*).

Outstanding bond principal also reflects this dramatic surge in the market (*see Figure 2 on page 35*). More than $12bn cat bonds are now outstanding, sharply up from $4.9bn at year-end 2005, less than two years ago.

With more issuance scheduled to come between now and year end, further distance will be put between this record year and last.

However, we see a very different story when comparing cat bond issuance to that of sidecars.

SIDECAR VS. CAT BOND

In 2006, there was an explosion of activity, with more than a dozen sidecar deals completed. This year, however, sidecar transactions have reduced to a trickle. And, unless there is a major market shift – the likely cause of which would be a major catastrophe loss – sidecar issuance is likely to remain depressed.

So what is going on, and what does this mean for ceding companies as they look to planning their risk management programmes?

Simply put, we see more and

FIGURE 2: TOTAL RISK CAPITAL OUTSTANDING (AS OF SEPTEMBER 18, 2007)

Source: GC Securities Proprietary Database
On an annual basis, total risk capital outstanding (which measures the total bond principal currently at risk in the market as of the relevant year-end, regardless of issuance year) is distinct from total risk capital issued (which measures the incremental risk capital issued in a given year). Given that the vast majority of bonds are issued for a multi-year term, this distinction explains the significant difference in annual volume between Figures 1 and 2.

more ceding companies embracing catastrophe bonds as a core element of their risk transfer programs, along with traditional reinsurance. In particular, recently sponsored cat bonds are being structured in ways that signal this. Ceding companies are more heavily using shelf offerings that allow fast and efficient subsequent issuance. Cat bond transactions are structured for multiple years, covering a broadening array of perils and geographies, and cat bonds are being used to transfer risk over a broadening spectrum of risk. Previously confined mostly to the 1-in-100 to 1-in-250 year return period band of coverage, more and more issuance is being designed to protect even more remote, very low frequency but very high severity individual catastrophes. At the same time, transactions have also been placed to protect against the occurrence of multiple disasters in a single year.

Ceding companies see cat bonds as a complementary source of capacity to the reinsurance market, and a force to add stability to the pricing and capacity of the catastrophe risk transfer marketplace.

First-time issuance in 2007 by some of the very biggest insurance companies, including State Farm, Allstate, The Travelers and Chubb, all reflect these dynamics.

In contrast, the sidecar is principally a tactical weapon, ▷

which reinsurers (principally) and insurers (less frequently) deploy to bolster capacity by quota sharing some of their portfolios at times of market stress. Issuance in 2006 and 2007 demonstrated this clearly. In 2006, with dramatically higher prices and capacity in short supply that resulted from the hurricanes of 2004 and 2005, sidecars were used in abundance.

By 2007, however, the dramatic inflow of capital to the catastrophe market in equity (for new and existing companies), cat bonds and sidecars quickly dampened prices and capacity needs. Suddenly, sidecars were no longer necessary. Importantly, however, should market dynamics warrant, the structure stands ready to be rolled out at a moment's notice – which could serve to dampen pricing fluctuations in the future.

THE CAT RISK SPECTRUM

Aside from the remarkable increase in transaction activity, the most interesting development of 2006 and 2007 was the increased utilisation of alternative investment structures through which sponsors could transfer (and investors could access) catastrophe risk. While activity in the catastrophe bond market surged, market participants also shed or accessed catastrophe risk through a variety of alternative structures, including capitalising new independent re/insurers (both rated and unrated), arranging sidecar transactions, and buying and selling Industry Loss Warranties (ILWs).

More and more ceding companies are embracing cat bonds as a core element of their risk transfer programmes, recently sponsored cat bonds are being structured in ways that signal this

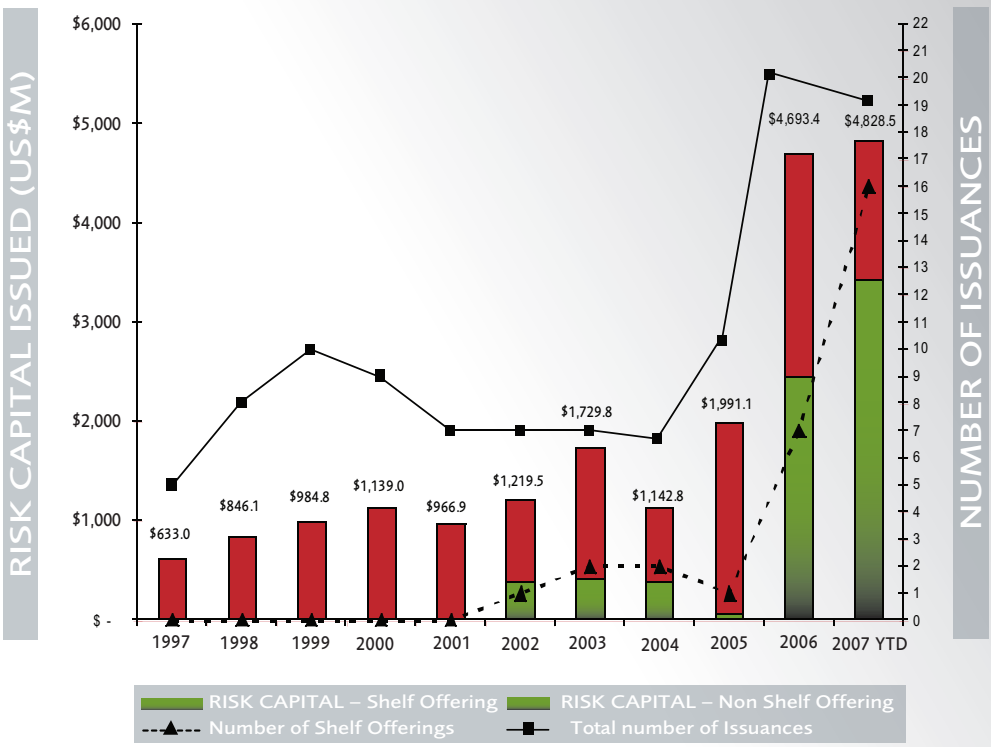
Although 2006 was by no means the first year in which these different investment structures were utilised, the year was characterised by the explicit inter-relationships between the different structure options. This was most evident on the investor side of the market, as capital providers frequently evaluated catastrophe bonds not only against traditional (non-catastrophic risk) asset classes (as in years past), but also against alternative catastrophe risk investment structures. Sponsors, on the other hand, growing increasingly comfortable with utilising capital markets capacity to supplement their traditional reinsurance programmes and capital bases, embraced the entire spectrum of capital markets solutions as valuable, necessary tools to manage their catastrophe risk exposure.

The evolution of risk transfer options also helped enable the transfer of fundamentally distinct types of catastrophe risk into the capital markets, broadening the effectiveness of capital markets solutions. For example, while catastrophe bonds and ILWs remained the primary vehicles for transferring extreme tail risk, sidecars (particularly the equity layers) allowed investors to gain access to low layer (higher yielding) risk more easily, and, in some cases, with a greater degree of control over the type of risks selected.

TOUCHING BASIS

In 2006, sponsors indicated that aside from price, basis risk was their primary concern

FIGURE 3: HISTORY OF SHELF OFFERING USAGE



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when using the capital markets to manage catastrophe exposures – and in some cases, basis risk was more important than price. The transaction activity of 2006, with only two indemnity transactions completed, suggests that the capital markets continue to be resistant (at least, in general) to accepting indemnity transactions, though there may be continued isolated exceptions to this rule.

The industry-wide focus on basis risk, however, is generating positive results. Over the course of the year, several new trigger approaches were developed and utilised successfully. These new approaches, generally referred to as hybrids, are fundamentally driven by the desire to minimise the basis risk borne by the sponsor, while remaining non-indemnity based. A leading industry rating agency, sensitive to the growing importance of basis risk, published a set of general guidelines and a methodology on which it would rely in its evaluation of the magnitude of basis risk implied by ▷

different catastrophe bond structures. Modelling firms and other industry participants, keenly aware of the impediment basis risk imposes, are devoting substantial resources toward developing more robust, customisable indices.

While much work is being done on new and better indices, and many ceding companies are becoming increasingly comfortable assuming basis risk, there are signs that indemnity transactions are not going away. Thus far, four indemnity transactions have been issued in 2007 – up from two in all of 2006. With growing issuance, this is enabling investors to create more diversified portfolios of sponsors. For some investors this allows them to absorb more indemnity-based bonds.

This is good news for ceding companies that are uncomfortable in absorbing basis risk. Nevertheless, for the investor market, one thing is clear: for sponsors to attract significant capacity and favourable spreads, they must be able to demonstrate a strong control over the portfolio of risks covered under the bond, including detailed and credible modelling of the covered risks.

SHELF LIFE

As noted, during 2006 and 2007 there was a substantial increase in the number of shelf-offering transactions completed, and the amount of risk capital placed via shelf-offering structures (*see Figure 3 on page 37*). Shelf-offerings essentially allow sponsors to create a single set of offering documents summarising the general characteristics of an offering, and then, primarily based on these documents, issue additional bonds (up to a maximum limit) over the course of a stated risk period. These additional issuances are known as takedowns.

First introduced into the cat bond market in 2002 by Swiss Re's Pioneer programme, shelf-offerings have several features that are attractive to sponsors. First, they allow sponsors to access capacity on an as-needed basis, rather than having to make an estimate of their capacity needs several years in advance. Second, because takedowns refer back to the original transaction documentation, the issuance expenses associated with takedowns are substantially lower than for standalone issuances.

Another attractive feature of shelf-offerings is their extreme flexibility: they can be customised so that different classes of notes can address different risk layers, perils, geographies and have different maturities. Finally, shelf-offerings provide sponsors with the ability to purchase additional capacity opportunistically, completing larger takedowns when pricing is favourable and postponing or downsizing takedowns when pricing is unattractive.

Catastrophe bond investors also tend to view shelf-offerings favourably, as they tend to be a reliable source of transaction flow – a long-standing concern for the cat bond market (though significantly less so during 2006).

The increased use of shelf-offerings is a positive sign for the catastrophe bond market. In general, it indicates a more broad-based intention on the part of sponsors to systematically incorporate cat bonds into their risk transfer programmes (as opposed to only turning to the cat bond market for one-off solutions in times of crisis). Shelf-offerings facilitate repeated interactions between sponsors and investors, which has the ancillary benefit of building a track record of successful transactions and thereby helping to raise the general confidence level of all market participants.

BUILDING STANDARDS

The catastrophe bond issuance process has become significantly more standardised relative to that seen in the more formative years of the market. A long-standing core of experienced, sophisticated investors anchor the investor base, and new entrants tend to be savvy investors who bring substantial experience in insurance industry investing and, in many cases, reinsurance underwriting. The roles and responsibilities of all critical parties (i.e. sponsors, legal firms, investment bankers, modelling firms, rating agencies and investors) have become better defined. With particular respect to the legal documentation required – a component that in the earlier days of the market took a considerable amount of time and expense to create – economies of scale are beginning to manifest themselves. All of these factors are helping to compress the amount of time required to complete a catastrophe bond and, to some degree, reduce issuance expenses.

However, with respect to transaction mechanics – specifically trigger design, coupon mechanics, and, to a lesser extent, form of offering – 2006 and 2007 showed increased innovation and non-standardisation. Four transactions utilised different types of previously untested hybrid triggers, providing sponsors with greater flexibility and helping to reduce expected basis risk. These trigger types, by and large, were well received by the investor community.

BREAKING BARRIERS

For more reasons than just record issuances, 2006 and 2007 were significant – they clearly demonstrated that the capital markets can play a significant role in a wide spectrum of the risk transfer arena.

Taken as a whole, the securitisation activity of 2006 and 2007 provides further support for the broad-based convergence of the traditional and capital markets. And, while in years past a great deal of focus has been on the convergence between catastrophe bonds and traditional reinsurance, the activity of 2006 and 2007 suggests that in fact, convergence is more widespread. More than ever before, during 2006 and 2007 the barriers of the past were broken down, as sponsors and investors, in a near seamless fashion, chose between traditional reinsurance, collateralised reinsurance, catastrophe bonds, sidecars, ILWs and other structures, depending on transaction objectives.

While certain structures are clearly more efficient for particular types of risk, the degree of interchangeability between alternatives nevertheless rose substantially. The increased flexibility and transparency of the market, making it better able to meet the objectives of both investors and sponsors, is a strong signal that the capital markets will continue to develop into an increasingly vital, and perhaps less distinguishable, supplement to the traditional reinsurance marketplace. ®

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