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Capital Markets and Reinsurance

During the 1990's the insurance industry was preoccupied with the anticipated convergence of the insurance and banking industries and how the insurance company business model would need to evolve as a result. In hindsight, the more relevant discussion would have been concerned with the impending convergence of the capital markets and insurance industries and the transformation it would cause. Currently, there is industry discussion concerning the *pending* convergence of capital markets and reinsurance; in reality, it is a "past tense" event – the convergence has, in fact, occurred and is beginning to radically transform the traditional global insurance carrier and broker distribution models.

The year 2005 was a seminal event as respects this convergence. The unanticipated, and unprecedented, events of hurricanes Katrina, Rita, and Wilma ("KRW"), with their total \$60 billion in insured losses, caused a sudden and material strain upon the traditional property catastrophe retrocessional market, and new solutions were quickly required. This spate of hurricanes, the so called "frequency of severity", demonstrated the inherent limitations of traditional sources of market capacity and new solutions, involving capital markets providers, were required. Simultaneously, the capital markets universe was seeing a continued growth in assets and the resultant vehicles available to meet this need. In effect, heightened demand for a new product met an increased supply of capital that was readily available. Thus, when the last hurricane made landfall in 2005, the insurance world was forever transformed.

It is important to clarify what is generally meant when the term "capital markets" is bandied about. There are several key products of the capital markets industry – aligned in many common ways – but very different in terms of their focus and intent.

The key areas to be discussed in this paper are:

- Hedge funds
- Private equity
- CAT Bonds
- Industry Loss Warrants (ILW)

Hedge Funds and Side-Cars:

The general concept of institutional investors merits some discussion. Essentially, the world is awash in capital provided from invested funds in various pension, trust, endowment, and sovereign equity funds. Much of this has been fueled by demographic trends, particularly in the United States, as the “baby boomers” have been in their peak asset accumulation years.

Clearly, much of this overall investment asset segment is deployed in traditional equity and fixed income investments throughout the major exchanges around the globe. Each of these funds is managed against a benchmark; success or failure in the management of these funds is determined by exceeding the market returns (or applicable benchmarks) over a holding period. This excess return is referred to as “alpha” by Wall Street. The pursuit of “alpha” has led many of these investment managers and fiduciaries to seek alternate investment vehicles.

One of the key alternate investment vehicles that exist for both institutional investors and high net worth individuals is the concept of a hedge fund. While the term has become part of the common vernacular, there is a lot of misunderstanding concerning their precise function of a hedge fund.

The traditional institutional investment mandate has utilized a “long” investment position in equities and fixed income holdings; that is, the investment intent is to achieve capital appreciation, and current income, over time resulting from holding or trading the securities. Such a mandate is highly effective during those periods when capital assets are appreciating.

Alternative investment assets and hedge funds, however, can provide for uncorrelated returns to these traditional “long” stock and bond holdings. In other words, if the stock market is declining due to a general economic contraction, investments in foreign currencies or commodities may actually be increasing. Accordingly, the overall portfolio return available from holding traditional and alternative investments is improved vis-à-vis the return benchmarks than would be the case by being purely invested “long” in securities. Therefore, “alpha” (superior returns) relative to the benchmarks is achieved. It is this incentive for alpha that has led to the incredible growth in hedge funds.

Hedge funds take various shapes and forms. On a global basis, there are over 8,000 hedge funds of various size and complexity. In many ways, this is a much less regulated investment universe than traditional investment managers. Some of the particular investment strategies and mandates of hedge funds include:

- Foreign currencies
- Commodities
- “Short mandates” (that is, selling short particular financial instruments with the anticipation of a falling stock valuation)

- “Activist” hedge funds that make strategic investments in companies with the intent of lodging a proxy fight, or forcing other strategic changes, with a particular investment with the intent of unleashing shareholder value.

Increasingly, some hedge funds are emerging that have more characteristics of becoming company “operators” for a longer holding period. Some of these entities have taken major positions in such stalwart companies as Sears Holdings, KMART, GMAC, and other such entities with the intent of improving the operating results over a long-term holding period for a substantial capital gain upon sale. Thus, some hedge funds are evolving into more that of business operators than, simply, opportunistic investors.

As a general matter, hedge funds tend to be extremely opportunistic and look for short-term disruptions in the marketplace. While traditional institutional funds seek to minimize volatility, hedge funds are focused upon volatility as it can create very pronounced short-term profits.

Thus, the hedge fund community was quick to embrace the opportunity that was presented post-KRW; the insurance community required catastrophe capacity and the traditional sources of that capacity were limited due to net losses that had surfaced on the reinsurer’s own net accounts. Many of the traditional reinsurers in Bermuda, London, and the United States were required to access additional capital to shore up their surplus positions subsequent to the massive losses from KRW. Their ability to provide extra capacity, despite the significantly higher pricing that was evident, was limited.

Therefore, during this general time frame, the Side Car was created in concert with the hedge fund community. A Side Car is a special purpose investment vehicle that provides quota share reinsurance protection to the sponsor of the vehicle. The insured perils in the Side Car vary and have included multiperil accounts, Florida catastrophe business, Gulf energy risks, and other such perils. Side Cars provide limited protection for a short holding period (generally up to three years) at which time they are closed out and profits are distributed. The potential losses are limited to the amount of capital allocated to the Side Car.

While 2005 is noted for the dire impact of KRW upon the industry, the subsequent storm seasons of 2006 and, to a lesser extent, 2007 were fairly benign. A key confluence thus occurred, a substantial amount of new capital was allocated to Side Cars (over \$5 billion in 2006 alone) in a short period and, concomitant with that, unprecedented market returns ensued for the investors due to the limited storm activity. The Side Car phenomenon is here to stay.

The key risks of a Side Car investment include the size and capabilities of the sponsor as well as the tail risk of the exposure compared to the limited time frame of the investment. In other words, if the Side Car has a three year life and exposures do not clearly fit into those time parameters, there could be a residual exposure to the cedent. As an industry, we are now more than two years past hurricane Katrina and those losses continue to be in

various stages of adjustment and adjudication (the so called evolution of property into a “long-tailed” line of business).

Finally, the capital providers for Side Cars (primarily hedge funds) are highly opportunistic and long-term capital support via these mechanisms may not be always available in less appealing pricing environments.

Private Equity and Insurance:

Another key element of the capital markets universe is that of so called “private equity”. Private equity represents a global supply of over \$1 trillion in capital that is available to make strategic investments in companies with the intent of a 3 to 10 year liquidity event when those assets are sold, recapitalized, or brought public via an initial public offering.

Typically, a public company is acquired through a private equity offering and taken “private” by substituting one group of owners (public common stock shareholders) with a private equity group. Private equity groups raise funds from a combination of institutional investors (pensions, banks, and others) as well as high net worth individuals. During 2007 alone, \$300 billion was raised by private equity firms. Recently, a few of the larger private equity firms have undergone initial public offerings to access the public capital markets (in what may seem to be a bit of a counterintuitive move).

Private equity has impacted the insurance industry in a few ways. Events over the past 15 years have required sudden, material infusions of capital into the industry to allow for reinsurers and primary carriers to recoup underwriting losses and to provide the additional capacity necessary for growth.

Subsequent to 1992 (Hurricane Andrew), the first group of Bermuda based carriers was launched. While the next five years brought some notable wind activity, these investments proved to be highly successful and profitable to the capital markets investors. Thus, the first major and coordinated foray into property and casualty investing by institutional investors was both profitable and operationally successful as the new companies succeeded and quickly grew in the marketplace (although some of the companies eventually merged into other entities). In essence, a new insurance carrier business model was developed in Bermuda with a new set of investors than those who had traditionally backed insurance carrier formations and capital raises.

After the tragic events of the World Trade Center attacks, a second class of reinsurers was formed in Bermuda as billions of new capital was put into new companies, unburdened with legacy liabilities, to allow them to capture the improved pricing environment of a hardening market. Again, institutional investors provided the seed money for these new ventures and, again, this “class” of reinsurers proved to be both profitable and operationally successful.

After the events of KRW, a third class of Bermuda reinsurers was formed to capture opportunistic market conditions. The returns this “class” of reinsurers will achieve is

less compelling; it would appear they are achieving returns on equity of less than 10% and consolidation may be likely.

As a general matter, private equity is not a great fit with the property and casualty insurance model given the longer-term investment horizon required by the capital providers (up to 10 years or more) and the insurance pricing cycle variability that is likely over such a period. In other words, the timing when the private equity firm is looking to exit an investment via a liquidity event may or may not coincide with the timing of a hard market cycle.

There are some segments of the insurance industry that fit with the private equity model. First, several firms have made investments in run-off management companies as well as commercial run-off and wind-up ventures of reinsurance companies. Such firms utilize aggressive commutation strategies to wind-up longer tailed reserves to free up residual surplus that can, ultimately, inure to the benefit of the investors.

Second, there is a marked interest in non-risk bearing acquisitions and consolidation roll-ups of intermediaries and brokers. This segment of the market tends to lend itself to cost efficiencies to be gleaned from combining operating platforms and, also, provide for less operational execution risk from legacy liabilities than is the case with a risk bearing entity merger. Distribution acquisitions tend to better support the leverage required in such a private equity buy-out than is the case with a risk bearing entity.

Third, some specialized niches have been the focus of private equity investments and acquisitions. These would include some life reinsurance platforms.

As a general matter, there is a high degree of operational risk that arises from an insurance acquisition. Unlike the banking industry that tends to have a very common platform and operations that can be combined with little execution risk, the insurance model is very disparate from one carrier to another and consolidations are risky undertakings. The expense savings that emerge from an insurance acquisition tend to be much less meaningful than would be the case in combining the back-office operations of two banks.

CAT Bonds:

A Catastrophe Bond, or “CAT” bond, is a securitized form of reinsurance that is fully collateralized and involves three key parties. The first is the ceding company (or sponsor). In turn, they will pay premiums into a Special Purpose Reinsurance Vehicle (“SPV”) that has been solely created for this transaction. That SPV will, in turn, hold a principal amount in trust that has been provided by external investors (the third party to the transaction). These investors will be paid a periodic return on the SPV investment (generally variable interest based on the LIBOR rate and a risk spread). There is potentially a need for a fourth party in these transactions, known as a “swap counterparty” (usually a Wall Street firm) to address any fixed rate versus variable interest conversion issues.

These investments have grown significantly in acceptance and appetite; from \$2.5 billion in such securitizations in 2005 to over \$13.0 billion in 2007. The investors in such bonds are, almost exclusively, global institutional investors and, to a lesser extent, high net worth individuals. The bonds are increasingly desired by investors due to their lack of correlation with the general stock markets and the favorable returns to date that have been provided.

The “triggers” for reimbursement of losses can vary with CAT bonds. The key triggers include industry indices; parametric (based on certain event characteristics such as a hurricane intensity or specific earthquake magnitude), or based on the indicated results of one of the key industry catastrophe models. Industry losses (such as the PCS index) can be problematic as the specific losses of any one company may not correlate precisely with the industry losses (on a market share basis). This introduces the concept of “basis risk” (a company’s results are not well correlated with industry losses from an event) and is one of key criticisms of this type of product. This risk can be mitigated through one of the other trigger mechanisms that more closely correlate with the cedent’s actual exposures.

There are certain barriers to entry for such a solution given investor appetites and the frictional costs associated with establishing such a bond offering. There is also an upfront commitment of management time and company resources necessary to bring such an offering to fruition. Thus, to date the larger insurance companies have tended to sponsor such bonds; although, there are opportunities for industry type pools for certain regional companies (a bond for Texas wind exposures for various regional companies with such risks, for example).

The perils that can be addressed by CAT bonds are varied and international in scope. Recent offerings have included:

- US Wind
- US Earthquake (various zones)
- Japanese Earthquake and Typhoon
- Mexico Earthquake
- UK Flood

There are some compelling advantages of CAT bonds compared to traditional reinsurance. The credit risk (from uncollectible reinsurance) is negated with a bond that is fully collateralized. The timing of the recovery under a CAT bond that has been triggered can be much quicker than would be the case with traditional reinsurance. Thus, the time value of money needs to be incorporated in any cost analysis of a CAT bond compared to traditional reinsurance. (The general mind-set is that CAT bonds are always a more expensive risk solution; however, such analyses often disregard the soft costs such as time value of money and credit risk.)

Further, the correlation of the risk solution from a CAT bond may more closely align with the exposures themselves (i.e. model based attachment points and expected losses).

These products are often multi-year and can provide longer-term protection than a traditional treaty product.

To some extent, these products have not been fully tested by actual events. While no disruptions are anticipated, there conceivably could be an indication of a so called “cliff risk” when the size of the event leads to a complete loss of investor’s principal. The willingness for such investors to “re-invest” may be tested under such a circumstance.

Industry Loss Warrants (ILW):

ILWs are one of the older, more common, forms of capital market solutions that have been in effect since the 1990’s. In essence, ILWs are derivative contracts and are a generalized alternative to a Catastrophe Excess of Loss contract. Basis risk (company loss exposures do not correlate with the underlying recovery of the instrument) is common and, accordingly, these products best fit only the largest entities with the broadest account diversity. This factor has lessened the appeal of the product and the growth has been very limited since their initial introduction. As a positive factor, these solutions can be implemented very quickly and efficiently to provide generalized protection.

Initially, these products were offered on a nationwide basis and have since evolved into more of a regional peril focus. Hedge funds are very active in providing the capacity for these instruments and have found superior investment returns from this product.

Capital Markets – Other Products

Collateralized Debt Obligations (“CDO”) have been an effective way for regional and smaller insurance companies to raise capital efficiently in a pooled fashion. In essence, a CDO is an asset backed security that has been created by structured finance institutions. These hybrid debt instruments are designed to provide additional bond type product to investors and have capitalized upon growth in various types of loan assets, such as credit card receivables and mortgages. The various pools are stratified based on the perceived credit risk of each layer, or tranche, and are priced to fit investor appetite.

These insurance CDO pools have allowed many regional companies to access capital markets to expand their market capacity in ways that would be denied normally in the conventional corporate finance arena (due to size limitations). Some of the insurance pools have also utilized bank collateral to provide greater diversification to investors.

Insurance CDO pools have not given rise to any defaults historically; unfortunately, recent events arising from subprime mortgage CDO pools have affected the formation of new insurance oriented pools (the overall class of security has been impacted by recent liquidity constraints). These insurance oriented vehicles have outstanding attributes and the liquidity issues should ease over the course of 2008 and new issuance should resume.

Another capital markets vehicle that has very good potential for growth is a contingent capital vehicle that allows for pre-determined access to capital (through either a borrowing or a right to issue surplus notes) subsequent to a defined catastrophic event. There is no balance sheet impact until the option is exercised. Unlike a “shelf registration” to sell stock, there is usually no special disclosure with the SEC.

The advantage of these vehicles is the carrier can avoid the forced liquidation of investment holdings after a major catastrophic event, as the forced liquidation of securities by numerous insurance companies may serve to depress market prices in a “mega-CAT” type event. These vehicles also allow the company to avoid the time requirements necessary for a follow-on stock offering, or convertible debt issuance subsequent to a major catastrophic event. In turn, management can better focus upon the new business opportunities that have surfaced vis-à-vis their competition.

Finally, there is a substantial need in the industry for a securitization product for reinsurance recoverables which represent the second largest asset in an insurance company’s balance sheet. Banks tend to be much more efficient in increasing balance sheet velocity (the timing required to convert a recoverable asset into cash) than insurance companies.

The reinsurance recoverable asset is subject to two key risks: (a) credit risk (an inability to pay); and (b) disputes (an unwillingness to pay). The second feature creates a major impediment in terms of creating a securitization product for investors. Nonetheless, one major European based company recently completed the first reinsurance securitization to transfer some of the non-disputed, non-affiliate recoverables to investors (thereby increasing their balance sheet velocity for superior shareholder returns). There is a considerable opportunity within the industry to provide such products to a variety of cedents.

In conclusion, the convergence of the insurance and capital markets realms presents the various insurance company stakeholders (managers, shareholders, business partners) with new ways of addressing risk and providing for growth in available capacity. We are only in the early innings of this game that will, in time, greatly transform the risk business.