RISK FINANCING

*By Thomas Strachan**

This article deals with the progression within the financial markets for the handing of risks and the capital requirements attached. In particular attention is focused upon the emerging risk transfer mechanisms as opposed to the traditional insurance method.

A revolution of sorts is currently taking place within the commercial insurance industry, one that is changing the very nature of how an insured handles it's exposures to risk. As the traditional insurance market fails to provide for the changing face of risks the alternative market has to respond.

Risk Financing has extended from transfer of risk to an insurer to alternative methods such as captives, use of capital markets, higher retention levels, contracting out of liabilities as well as reduction. The traditional methods of transferring all liabilities to an insurer are becoming less popular. Risk Financing plays an exceptionally large part in the overall, financial and physical commitment of an organization to its approach to risk in general.

Many organizations are today interested only in increasing profit, and through objective management of risk and various methods of Risk Financing increased profit and reduced insurance costs can be seen.

The mechanisms available at present involve Transfer, Retention or Reduction of risk as well as those mentioned previously.

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The transfer mechanism is, usually the first option viewed by most organizations, thus they buy insurance from the market place. Many of these organizations, at renewal of their policies don't even obtain alternative quotes let alone consider alternative Risk Financing tools.

This is when if an organisation who wishes to insure its' risks should consider a Captive, basically it's own insurance company.

Retention

There are three main types of retention most worthy of being considered, these are:

Where a charge is levied against the organization as a normal operating cost.

Where a contingency fund is established from which exceptional losses can be funded.

Where an organization borrows and pays back the funds over a set time.

In a well structured Risk Management Program conventional insurance should play a minimal role. So long as an organization is large enough and the boundaries of the financial cashflow are flexible enough, the retention should be maximized thus minimizing the cost of risk transfer an associated costs.

As companies grow and expand they should assume grater retention of risk focusing on instruments to withstand financial volatility of the markets. The organization are focusing on a holistic approach realizing the potential for multiple losses from unrelated events/exposures.

Financing Greater Retention The problem lies in finding the most productive way to finance retention's to provide reasonable earnings and budgetary stability. The larger the company the greater the ability to treat same as overhead particularly for centralized organizations. For decentralized organization, captives would be a more useful tool to carry the difference usually evident between local an corporate deductible.

Self Insurance: An organization will retain a major proportion of a risk E.G. the first L 10000 in any :On claim or L 2000 in any motor claim, for damage to own vehicle and that of a third party, they then insure the upper layers in the open market or in a captive. e.g. high frequency low severity compare the cost in the market. In such a case insurance would merely be a pond swap with an insurer and insures costs would also be reflected in the premium.

Self Insurance with large deductibles, thus the company pays for the majority of it's claims and can insure the rest of its exposures in the insurance market of establish a captive.

(1) The advantages of Self Insurance are that costs are less than in insurance market, investment income generated from the fund, premium costs aren't affected the following year, greater incentive to control the risks, noclaims disputes with insurers, will have

(1) Practical Self Insurace: J Boyce-Smith, A.M. Pearec

own staff to administer the fund and all profits belong to the company.

Other organizations retain some portion of the risk and transfer that part which they are not wishing to bear, thus they will have a lower premium but expose themselves to larger deductibles.

Risk Reduction

This is where the company attempts to reduce its exposure to risk, by physical risk management. However at the end of the day they would normally still resort to transferring the financial responsibility to the market.

Reduction: By far this is the best form of dealing with risks, the ability to limit severity and frequency of claims can be done by undertaking a risk analysis of any process. The best time to address such an issue is at the consideration stage or planning stage. For example, a company is going to build a new factory, so they should consider location, probability of flooding if located next to a river, as well as considering fire precautions such as fire walls and sprinkler systems. It can prove costly if these measures are addressed after completion or during construction of any project.

Capital Markets and Transfer

Insurance should be used to cover risks on assets and derivatives to protect against commodity, exchange rate and interest rate risk exposures. The risks facing assets are staying the same while those business risks are increasing continually.

While, as is the present case, insurance capacity is in plentiful supply ART methods such as derivatives, and options are not considered by many companies.

Although this may not be the case for commercial industry, the re-insurance market has and is in the process of continually seeking new ways of funding their liabilities and protection there financial foundation. However to industry and insurers alike reinsurance is still there favored alternative as it is relatively cheap easily available and understood, unlike the derivatives and options.

The global positioning or location of an organization is seen as playing a large part in the perception of risks faced by the company, in the US attention focuses on interest rates while in Europe it is exchange rares.

The present approach in the US appears to revolve around they dealing of derivatives and options linked to high catastrophe risk. It is deemed more expensive than conventional reinsurance as the complexity of the contract attracts a higher price.

Finite Risk Management

(1)This form of risk financing prevents an insured who adopts a good risk management program and loss record from financing the losses of others. The program is tailored to their needs.

This has driven many companies to undertake a greater interest in the alternative risk transfer mechanisms available and as such are willing to tie up their insurance arrange-

ments for a longer time period knowing that the returns for their organistions can be favorable to them.

All the insurances can be placed with the one insurer which can attack a discounted rate for the insured and policies of this type can generally have less restriction on cover than that available if purchased through a conventional transfer method.

(2) This approach would enable the costs of the program to reflect the insured's loss history, rather than that of the general market and it's peers. This would then result in a more cost effective risk transfer program.

The finite financing approach with the multi year contract, provides better protection and a more stable pricing than annual contracts for many risks. Greater coverage is provided which in turn has a greater security effect on the companies assets as net income and shareholders equity are better

This approach to risk financing although only slightly different from conventional insurance, provides for profit sharing, thus encouraging better performance for the interest of both the insurer and insured. Generally in a normal contract of insurance the winner is the insurer, when claims aren't made and the insured is he winner when a claim exceeds the premium paid.

(1-2) Hemer, M.D. & Dickson, R.T. Finite Risk Conctracts An Enlightened Approach, Risk Management August 1995.

Captives

can provide tax and financial accounting benefits.

This involves a company establishing a subsidiary to underwrite risks which are either uncoverable in the insurance market of are charged at too high a premium. Captives allow the organizations to benefit from only paying premium which reflects the companies exposures and claims experience and not that of the general insurance market option as well as paying for their overheads.

Captives also allows for direct access to the reinsurance market,where covers not offered by insurers can be purchased, an then a cheaper price on covers which can be purchased from insurers.

This form of risk financing also allows the organization to place insurances within the captive which it may not be in a position to insure in the open market or alternatively which the open market would charge an excessive premium to cover and impose terms and conditions. The captive can be restricted to write only covers for the parent company of underwrite covers for other organisations.

Rent-Adaptive: Such programs are designed to considerably lower the net cost of insurance by the return of underwriting profit and investment income earned upon the accumulate premium. Those participating in a rent-a captive do not have the setup costs or concerns associated with a company who establishes their own captive. This offers the participants the benefits of

a wholly owned captive insurance company without the associated costs of establishing their own insurance subsidiary. There is no discrimination involved both multinationals and smaller companies can participate in this form of Alternative risk transfer mechanism.

Reinsurance

Reinsurance: yet another transfer mechanism, under taken to provide some sense of security to both insurers and captives whom only wish to self insure or retain a certain percentage of the risks and liabilities to which they are exposed.

As well as trading in the derivatives market in the US, in Bemuda the reinsurance capital of the world further advances are being made into the capital market in the form of using Options and swaps as transfer mechanisms.

(1)The Reinsurance arm of Global broker Noon, An Repioneered Catastrophe Wuity Put Option, has issued non-index lined options, which fixes now the price at which fresh capital can be raised in the aftermath of a catastrophe. (2)Two other reinsurers LaSalle Re and Cat Ltd. have both shown an interest in establishing their own CatEPut options.

(3)LaSalle Re have actually in place a Catastrophe Equity Put programme which allows it to obtain $100m of equity through the issue of convertible preferred shares at pre negotiated terns should a major catastrophe occur. LaSalle Re have two triggering actions available to them under their arrangement. (4)The first is that the agreement can be operated once the company has losses exceeding $200m from a single event or if the aggregate losses for any 12 months within the three year programme exceeds $250m.

(5)The lead option writers are European Reinsurance of Zurich, Allianz and LaSalle founding shareholders A on and CNA. They all have the option to buy the preference shares at the time of a loss which meets the requirements of the programme.

(6)Several insurers in the US are heading in the footsteps of RLI Corporation a specialist insurer for California earthquake exposures, and Horace Mann Educators Corporation who have both had such CatEPut options underwritten by Centre Re.

This type of Risk Financing mechanism allows the sclerotization of risk and allows the reinsurer or insurer to protect is's balance sheets. For this (7)LaSelle Re pay an annual premium of $2.35m much less than what the investment banks would have charged following an event.

Effective risk management plays a large part in any successful insurance company. The spread of risk and a varied portfolio is vital if a company is to service catastrophe claims. An insurer with a book of business geographically well spread, insuring against multiple perils, should by the law of averages suffer significantly less from a single catastrophe than a company with a concentrated book with only a couple of perils.

Catex (Catastrophe Risk Exchange)

(1)Catex is a computerized exchange oper-

ating under license from the Insurance Commissioner in New York State-offering members an electronic service allowing them to exchange risk exposures.

(2)The reinsurers of Bermuda have established Catex Bermuda, which is an electronic exchange for trading risks. The system allows direct risk swaps for example (3)a reinsurer with a large Florida Windwest Tornado exposure. The perils percentages of exposure, payment terms and regions covered can all be negotiated. (4) Each reinsurer must retain a minimum of 20% of the maximum total loss, thus ensuring they pay only legitimate claims.

The introduction of Catex provides a valuable tool for insurers and reinsurers to managed their risk exposures and aid them in providing a transfer mechanism in a field which they know.

The insurers or reinsurers trade potions of their portfolios, in areas where they feel they are over exposed, with other insurers and reinsurers. Thus they are spreading the risk of their portfolio and undertaking a portion of risk from anthers perfoliate, which they deem to be less probable in an incident of that type occurring at such a level. Based upon the laws of probability the insurer who spreads his risk as widely as possible should be less likely to pick up a large bill should another catastrophe occur.

Each transaction is carefully assessed for the underwriting risks and associated costs of claims as well as the solvency margins of the companies transacting the business.

Another Hurricane Andrew would potentially devastate several reinsurers and insurers, losses from this hurricane alone cost the industry $16.5 billion.

(5)The next super catastrophe will it is estimated cost the market $71 bn LA earthquake, $76bn Florida hurricane and $21bn for a hurricane in northeastern US.

(6)Risk swaps are offered in standard trading units of $1m, although any size of transaction is possible.

Due to the fact that Catex also allows for reinsurance transactions involving cash premium payments and pure risk swaps, Catex can therefore also be used for purchasing reinsurance products such as facultative risk, per risk excess or catastrophe excess coverage's. This diversity within the system permits those trading to fashion their own strategies and risk management programs on the Catex system. For example (8)a primary insurer can firstly swap exposures with another insurer thus resulting in a more diversified portfolio and then purchase an excess reinsurance cover to gain broad based protection on a synthetic book of business.

(9)Those trading can in a crude manner surf the files for risks which they would like to become involved in and with those whom carry these risks presently.

Today it is estimated that self-insurance and other (10)alternative mechanisms represent 35% of the near $190 billion chimerical insurance market.

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Risk" Accessed 13 Nov. 1997.
4-5) Authors, J. Storm signal for bond investors. Financial Times 5 Sept 1997
6-10) http:www.catex.com/nutund3.htm, Lakanders,S "Going to market to Spread Risk" Accessed 13 Nov. 1997.

Derivatives and Options

The capital markets have witnessed the emergence of insurance derivatives and a number of related alternatives in the reinsurance industry. The first of the products, and perhaps the most developed, involves (1)themanagement of catastrophe risks. Although catastrophe derivatives have been some of the first insurance derivatives and certainly the most publicized, particularly the exchange traded products of the CBOT, insurance derivatives are becoming more noticed in other areas.

(2)The insurance derivatives are a faster more flexible and cheaper method of hedging especially for primary insurers. However unlike reinsurance contracts which can be tailored to meet the exact requirements of the insurer, the derivatives aren't quite as flexible, but the types of policies are very similar.

Unfortunately because the lack of historical data on the futures markets for the types of risks which could be staked the underwriters are still reluctant adventure into this field. Thus the CBOT are endeavoring to educate the conservative insurance industry of the merits of using the futures markets, which is developing a conservative but powerful hedging technique designed purely for underwriters.

(3)As a result of Hurricane Andrew & Hugo, a variety of insurance directives and related products now exist, including exchange traded futures and options at the CBOT. Traded on the OTC are derivatives or hybrid reinsurance contracts that depend upon loss ratio indexes or event triggers.

(4)By using derivatives, insurance risks can be repackaged and sold to investors through the capital markets or to speculators on exchanges such as the CBOT or via OTC products. (5)This allows reinsurers to underwrite even more business thus increasing capacity. Similar catastrophe derivatives are now being traded to hedge European catastrophe exposures.

The most action seen currency in the CBOT is actually in the Options contracts as opposed to futures as the contracts were recast from the original and are now traded as option call spread which virtually parallels a reinsurance layer. (7)The CAT Spread can be used by both insurers and reinsurers to hedge underwriting portfolios or alternatively used on the investment side of the balance sheet.

Advantages

(8)The CAT Spread has the ability to increase capital for reinsurers and insurers. Undertaking this method of transfer allows for more market capacity. The contracts are now standardised and thus lessening transaction coasts compared with typical insurance agreements.

(9)The driving forces are the size of the economic inefficiencies surfacing in certain areas of insurance and reinsurance.

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Conclusion

In my opinion the following would be the best options to be exercised, falling into 3 categories (Corporate Co, Insurer, Reinsurer).

Corporate Company: As Risk Manager of a Corporate Company I would adopt a 3 way strategy in my approach to risk transfer, by implementing all three of the alternatives, thus reduction, retention and transfer.

Thus a full risk analysis of the organization followed by a claims analysis would also be carried out in an attempt to discover any recurring claims such as RSI, or other claims. Having done this, the retention level would be set for a set for a self funding operation to apply across the board for all covers except E.L. and Motor for the Third Party Liability, as these risks by law must be insured by a recognized registered insurer.

If none of the captive options were available then the adoption of a finite programme would be introduced.

Inrurer: If working for an insurer my approach word obviously be to retain a proportion for the risks which I had underwritten and then reinsurer the remainder well that would be the easy sensible option. However, with the increased access to the Capital Markets, it could be prudent to reinsurer a proportion of the potential losses, and then underwrite ones own bonds.

The other option would be to trade in swaps and exchange risks with other insurers thus spreading my portfolio and undertaking the responsibility of another portfolios, after having carried out a probabilistic and non probabilistic theory test to work out the best results for the company.

ReInsurer: As a reinsurer, it would be my intention to reinsurer a proportion of my potential losses, and trade within Catex thus allowing for a more flexible form of Risk Transfer, with the possibility of experiencing a lesser claims experiences than that which would be offered by purely undertaking a reinsurance agreement with another reinsurer. The use of Catex and CAT spreads would help reduce my potential losses for risks which I had specifically underwritten.

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"Law is the crystallization of the habit and thought of society." ___ Thomas Woodrow Wilson.

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"One cool judgement is worth a thousand hasty councils". ___ Thomas Woodrow Wilson.

x———x———x

"One leak will sink a ship and one sin will destroy a sinner." ___ John Bunyan.

x———x———x

"Study the past, if you would divine the future." ___ Confucius.

x———x———x

"To be poor and independent is very nearly an impossibility" ___ William Cobbett.

x———x———x

"No man can justly censure or condemn another, because indeed no man truly knows another." ___ Sir Thomas Browne.

x———x———x

"Stretching his hand out to catch the stars, he forgets the flowers at his feet." ___ Jeremy Bentham.

x———x———x

"A man must make his opportunity, as of as find it." ___ Francis Bacon.

x———x———x

"Without doubt machinery has greatly increased the number of well-to-do idlers." ___ Karl Marx.

x———x———x