ARTICLES

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Welcome to the first edition of *ARTwork*. Our target readership is practitioners of Alternative Risk Transfer worldwide who have an interest in Lloyd's and the London market, and market players here with an interest in ART.

Each edition will feature articles from practitioners about aspects of ART. *ARTwork* will also be a vehicle for letting readers know about proposed relevant technical, regulatory and commercial developments at Lloyd's.

My job is to enable Lloyd's businesses to develop, use and write ART products. This year, the initial focus will be on changing the basis of regulating financial guarantee insurance in order to allow underwriters to market products which blend conventional and non-traditional elements. In order to implement this we need to arrive at a landing on the legal limits to what can be issued as a Lloyd's policy, on the application of our risk-based capital structure, on systemic accumulation and on underwriter competence. Partial change was achieved for the 1999 underwriting year and we expect a new structure to be progressively introduced during 2000. We will also be looking at potential securitisation and protected cell structures for use by Lloyd's businesses.

If you have any comments about *ARTwork* or would like to suggest subjects for future editions (or write one yourself) please let me know.

Peter Allen
Head of Alternative Risk Transfer

Insurance in transaction financing

While the insurance market and its advisers continue to debate the technicalities of insurance securitisation and other ART structures, the area in which the convergence of the financial and insurance markets has seen the most rapid progress is the use of traditional insurance products such as financial guarantee insurance, residual value insurance and similar insurances.

It is becoming increasingly common for companies (not only within the insurance sector) entering into a variety of transactions to use insurance to facilitate the financing and/or security arrangements. This is true not only for company acquisitions but also for asset finance or lease transactions. The investment banks and other advisers involved in structuring these deals have recognised that insurance companies have significant capital available and are willing to work with clients to structure transactions and produce appropriate policy wordings which provide insurance cover similar in nature to more traditional guarantees or other security documents. This article considers some of the legal and other issues which need to be reviewed when using insurance in this way.

In the case of a company acquisition, finance has traditionally been provided by equity or debt. In the case of debt, a third party, usually a bank, will provide a loan which may be in different tranches or which may be syndicated. The bank will usually take security over the assets of the target company and over its shares once acquired. The bank will be fully involved in the acquisition process, including a thorough due diligence investigation of the target company and its assets. On the equity side, if a venture capital fund is involved, it is likely to put in place significant restrictions over the conduct of the target company's business, complex exit provisions and require representation on the board of the target company in order to protect its investment.

Similarly, in the case of asset finance or leasing transactions, bank debt and guarantees have traditionally been used to support the acquisition or lease arrangements.

However financial insurance or residual value insurance is today an increasingly common way of providing support for the financing arrangements.

In some recent transactions, the acquisition of shares in a company has been effected in a traditional way with a bank facility to finance (in part) the acquisition. However, rather than the bank taking security over the shares and assets of the target, it is possible to secure the debt by the issuing of an insurance policy to the bank. The policy acts in a similar way to a guarantee but insures the risk that the purchaser fails to repay all or any part of the loan agreement in accordance with the facility. With residual value insurance and similar products, the policy indemnifies an insured against a loss that might occur if the proceeds from the sale of the leased asset at the end of the lease are less than the asset's insured residual value.

The advantage of using insurance in these transactions is that it gives flexibility to the structure.

The insurance company may insure all or only a tranche of the debt, it may structure its premium payment so that it receives the full premium at the outset or may defer part of the premium, for example, until the target company is subsequently sold or listed. It may also seek a shareholding in the target or acquiring company. Other advantages are that the bank may be happy to rely on the security of the insurance company and therefore steps back from any significant role in the transaction itself. The arrangement is also unlikely to give rise to the types of restrictions over the business of the target which are usually sought by venture capitalists providing finance to such a deal.

There are a number of legal obstacles which need to be overcome in structuring any transaction with an insurance element. Section 16 of the Insurance Companies Act 1982 provides that a UK authorised insurance company may only carry on activities in connection with or for the purposes of its insurance business. It is therefore essential that the contract issued by the insurer is a contract of insurance. In the UK there is no statutory definition of a contract of insurance but case law has identified certain essential elements as follows:

1. The insurer must promise to pay the insured in the event that the insured suffers an insured loss. Anything less, for example an undertaking to consider the merits of the claim, is not sufficient. Where insurance is issued as security to a bank facility, the insurer's promise to pay will arise where there is a default under the loan.
2. The insured must have an "insurable interest" in the subject matter of the insurance. It is probably the case that this interest must be held at the time of the loss. The key issue here is one of risk. Is the insured's relationship with the matter insured such that he would incur financial loss should the risk insured against occur?
3. There must be an element of contingency either as to the happening of the event concerned or as to its timing.
4. There must be payment by the insured of a premium. This need not be in cash and the amount and time of payment will be a matter for the insurance contract but a premium of some amount will be required.

It is sometimes difficult to distinguish between a financial insurance contract and a contract of guarantee as both are contracts of indemnity. However, there are certain technical distinctions between a guarantee and an insurance contract; in particular regarding the transfer of risk and the requirement for the payment of premium. If a contract is an insurance contract, it will be subject to the legal doctrine of good faith, which continues throughout the contract and is a mutual duty between the insured and the insurer. This is a doctrine with which banks are often unfamiliar, particularly in relation to obligations such as the continuing duty of disclosure.

It is therefore critical for a transaction of this nature that these issues are discussed with the finance providers at an early stage and that they are made comfortable that the policy will respond when payment is needed.

There are also tax consequences for the contract being one of insurance, the most obvious being that insurance premium tax may be payable on the premium.

Some time and cost are inevitably involved in developing an insurance policy for use in any particular transaction and there is often a learning curve for the lender to ensure that its position is protected. However, the advantages in terms of the security being provided to the bank and the flexibility in using a blend of traditional finance and insurance are significant. The use of insurance in these situations seems to be increasing significantly and could pose a threat or at least a viable alternative to bank facilities and security. The banks have been warned!

Cheryl Ronaldson is a partner in the Corporate Insurance Group at Norton Rose. She recently advised on Euc Re's management buy-out and cash offer for Euclidian, the first MBO where the financing was backed by insurance rather than traditional forms of security.

Analysing insurance linked securities

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The period since 1993 has seen the emergence of the new asset class of insurance linked securities. Most of the issues to date have taken the form of natural catastrophe linked bonds, or 'CAT bonds'. These are now a firmly established alternative to traditional sources of capital for the global insurance and reinsurance industries.

Insurance linked securities are an attractive development for both insurers and investors. They have arisen as the most significant tangible product of the convergence of the insurance and capital markets.

From the insurance side, this was driven by the volatility of reinsurance market prices, inadequate capital to support their exposures and a resultant need to secure new and stable sources of risk capital. CAT bonds provide insurance and reinsurance companies with additional risk capital at reasonable prices with little or no credit risk.

From the capital markets' perspective motivations have included a search for new sources of high yielding assets uncorrelated with other financial assets. Compared with high yield bonds, catastrophe bonds have wide spreads (large yield pickups) and very attractive Sharpe ratios. In fact they appear to dominate high yield bonds stochastically.

Furthermore, natural catastrophe risk is essentially uncorrelated with market risk. Moving a small component of a fixed income portfolio into insurance linked securities can enhance the expected return and simultaneously decrease the risk. This paper is focused on exploring further the impact for investors of investments in this asset class.

Intra- and Inter-Asset Class Diversification

An important difference between CAT bonds and high yield or emerging market bonds as an asset class lies in the large additional potential of CAT bonds for both intra- and inter-asset class diversification. Diversification potential within high yield bonds is limited because price and spread behaviour is generally correlated with conditions in the "credit markets." No matter how many high yield bonds an investor holds, if macroeconomic credit concerns cause spreads to widen, then the portfolio will perform poorly.

The new market for insurance-linked securities offers a broad range of independent and uncorrelated non-financial risks. If an investor holds a single CAT bond, there is a large probability of a high return, but a small probability of losing the entire principal. However, if the investor can diversify across several CAT bonds with independent risks, the risk of losing the entire principal of that aggregated holding becomes negligible.

We illustrate this in Tables 1 and 2, for hypothetical CAT bonds that pay $110 at maturity with a 99% probability, but only the coupon of $10 with 1% probability. It can be seen that with 10 independent risks, a dramatic improvement can be achieved through diversification. Observe that the probability of getting a return of less than –10% is virtually nil in the diversified portfolio.

TABLE 1

Return Distribution for a Hypothetical (Binary) CAT Bond

Probability	Return
99%	10%
1%	–90%

TABLE 2

Return Distribution for 10 Independent CAT Bonds of the same type as in Table 4

Probability	Return
90.44%	10%
9.14%	0%
0.42%	–10%
1.1×10^{-4}	–20%
2.0×10^{-6}	–30%
2.4×10^{-8}	–40%
2.0×10^{-10}	–50%
1.2×10^{-12}	–60%
4.4×10^{-15}	–70%
1.0×10^{-18}	–80%
1.0×10^{-20}	–90%

We have simplified this analysis by considering 10 binary CAT bonds with identical independent return distributions. The main conclusion that diversification within CAT bonds is of benefit applies equally to actual CAT bonds. In this context, it might be interesting to mention what different natural catastrophe risks exist that are immediate targets for securitisation:

1. Southeast U.S. (mainly Florida) hurricane.
2. Northeast U.S. (Long Island, New York) hurricane (very rare, but potentially causing very large insured damages).
3. Northern California earthquake.
4. Southern California earthquake.
5. New Madrid earthquake.
6. Japan earthquake.
7. Japan typhoon.
8. Canada earthquake.
9. Europe windstorm, flood, hail.
10. Europe earthquake.
11. Israeli earthquake.
12. New Zealand earthquake.
13. Australia earthquake.
14. Australia typhoon.

Beyond natural catastrophe risks, certain corporate risks share the same characteristic of low frequency, high severity. Examples are catastrophic events at commercial airlines, oil platforms or nuclear reactors.

Another potentially huge area for diversification is weather risks. These can relate to temperature (heating or cooling degree days) or to levels of precipitation. Although they may not share the low frequency, high severity characteristic of CAT bonds, they do also have inherently low correlation with financial risks. Other insurance-related risks that have been packaged and sold in a similar fashion include the residual value risk in auto leases, mortality risk (life insurance) and mortgage default risk.

The Market Model

Because insurance-linked securities are uncorrelated with other financial markets, their market risk is zero. Let us consider the Market Model below:

$$\tilde{R} = \alpha + \beta\tilde{M} + \tilde{e}$$

Here $\tilde{R}$ denotes the stochastic return of a portfolio, $\tilde{M}$ is the stochastic return of the market, α denotes the "abnormal" excess return, and $\tilde{e}$ is the idiosyncratic risk. The market component of the risk, $\beta\tilde{M}$, cannot be diversified away, while the idiosyncratic risk can be diversified away and thus does not command excess return.

Now, if we can find assets that

A. contain excess return, and
B. are orthogonal to the market,
C. and we add those assets to the portfolio, then
D. the market component of the total risk of the portfolio decreases, and
E. the α of the portfolio increases.

Analysing insurance linked securities

If the market has to be tracked, a total return swap can be used. In a total return swap, the investor pays LIBOR plus a small spread and receives the total return on a market index. This type of instrument allows an investor to manage the risk profile by adjusting the beta of the portfolio back to the level desired.

Insurance-linked securities in a diversified portfolio

In this section, we analyse numerically the impact of moving a small part of a large portfolio into one or several CAT bonds. We look at the change in the expected excess return and in the standard deviation, and we examine the impact of the investment on higher moments of the return distribution.

Let us assume we start with a large diversified portfolio of bonds with an expected excess return of 1.7% and a standard deviation of its return of 9.2%. This might represent a bond portfolio that includes a high yield or emerging market component. (Our analysis can easily be generalised to any other assumptions for the expected return and standard deviation.) For the purposes of this calculation we use as an example the Mosaic Re securitisation.

Mosaic Re

Mosaic Re I was the first “pure securitisation” transaction, in that it defined a specific set of 42 individual reinsurance contracts selected by F&G Re and put into a “defined portfolio”. To the extent that there are losses with respect to this defined portfolio, F&G Re retains the first (“equity”) layer of $26.2 million. Mosaic Re I security holders provide risk capital to support $45 million in excess of that retention, alongside a minimal coparticipation by F&G Re, and F&G Re again retains any losses in excess of this layer (see Figure 1).

An important innovation in the Mosaic Re I issuance was its division of the reinsurance contract into two risk profiles reflected by a two-class security structure. Losses between the first attachment point of $26.2 million and $48.3 million are carried by the Class B subordinated note holders. If losses exceed $48.3 million, Class B note holders will have lost their entire principal and risk will then be borne by Class A note holders until the exhaustion of coverage provided by Mosaic Re at $73.5 million.

The issue of adverse selection is particularly important for Mosaic Re I, because F&G Re selected individual contracts for this securitisation and other contracts to retain for its own portfolio. To reflect this, the defined portfolio was modeled on a stand-alone basis and clearly described as a specific set of risks rather than a general participation in the broader business of F&G Re. In addition, the contract provided for a high degree of risk to be retained by F&G Re. First, F&G Re kept 5% of the layers covered by Mosaic Re I Notes. Second, 100% of the first $26.2 million of losses, and 100% of any excess above $73.5 million, must also be carried by F&G Re. The retention of the first and the final layers by F&G Re, plus the coinsurance, helped to further align the interests of security holders and cedant.

Six months later, Mosaic Re II was issued, which had a very similar structure.

FIGURE 1 MOSAIC RE STRUCTURE

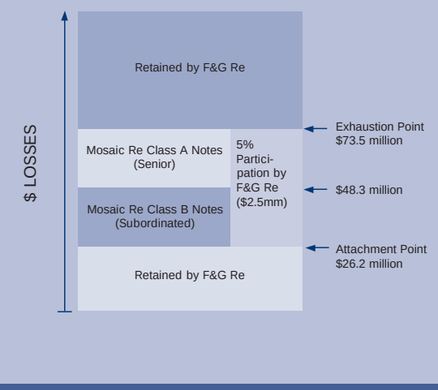


FIGURE 2 EXPECTED EXCESS RETURN OF THE PORTFOLIO AS A FUNCTION OF THE PERCENTAGE MOVED INTO MOSAIC

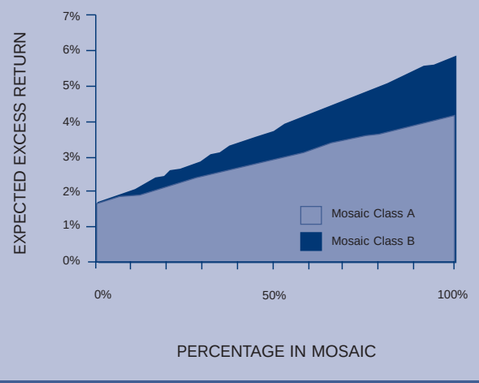


FIGURE 3 STANDARD DEVIATION OF THE PORTFOLIO AS A FUNCTION OF THE PERCENTAGE MOVED INTO MOSAIC

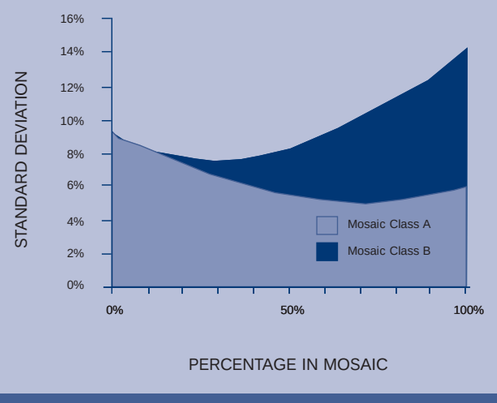
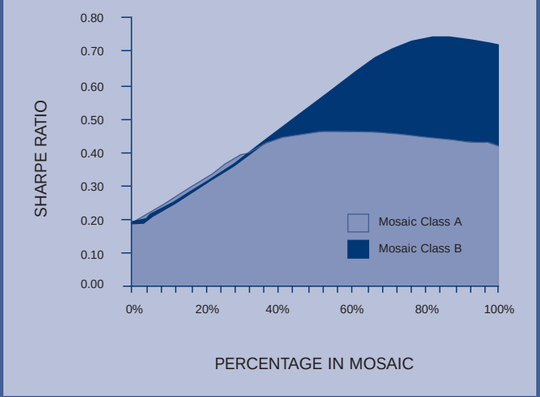


FIGURE 4 SHARPE RATIO OF THE PORTFOLIO AS A FUNCTION OF THE PERCENTAGE MOVED INTO MOSAIC



Introduction into a diversified portfolio

Let us now assume that we sell a percentage of the portfolio and buy a single CAT bond from the proceeds, either Mosaic Class A or Class B (at its issuance price and spread). The expected excess return increases, as Figure 2 shows.

We display the standard deviation of the resulting portfolio in Figure 3 and the Sharpe ratio in Figure 4. Note that the increase in expected return is always larger for Mosaic Class B than for Mosaic Class A. If only a small percentage of the portfolio is invested in the security, however, the standard deviation decreases by the same amount. The higher relative risk of the Mosaic Class B matters only if the percentage invested in the new security exceeds 5%–7%. Therefore, the Sharpe ratio of the portfolio is larger if we choose to invest in the riskier Class B rather than in Class A.

The intuition for these results lies in the fact that both securities are totally uncorrelated with the remainder of the bond portfolio. If the component invested in the CAT bond is small, then the standard deviation of the new portfolio is dominated by the original portfolio bonds, and the contribution of the new CAT bond to the total standard deviation is highly suppressed.

This remains true even if the correlation of the new asset to the original portfolio is small, but not exactly zero. This can be

seen in Figure 5, where we consider moving a percentage of the diversified portfolio into a new asset that has the return and standard deviation of Mosaic Class A, but a range of correlations with the bond portfolio. For a small correlation such as 5%, and a small component in the new asset, the results are essentially identical to those with zero correlation.

We can decrease the risk of the portfolio further by diversifying across several non-financial risks. Consider the amount we have in each subset of insurance-linked securities with independent risks. The first subset might contain several Florida hurricane CAT bonds, the second subset one or more California earthquake bonds, and so on.

We assume that the amount we have in each independent risk category is small compared with the amount still invested in the original diversified portfolio, so that the contribution of the insurance-linked securities to the standard deviation (i.e., to the risk) of the total portfolio is much smaller than their aggregate contribution to the expected return. Furthermore, their contribution to the skewness and kurtosis of the portfolio is even smaller, as is their contribution to all higher moments.

In other words: Under the assumptions that we have made, the form of the return distribution is very close to the one of the original portfolio, even if the CAT bonds have a very different (typically rather binary) return distribution.

We assume that the return distribution of the original portfolio is normal. We then consider the availability of either one or five independent CAT bonds, and move increasing percentages of the portfolio into these (equal percentages into each CAT bond). We have modeled the CAT bonds after Res Re '98, with a spread over LIBOR of 400 bp, but this assumption is not essential. It is remarkable that a relatively large component of the portfolio can be moved into insurance-linked securities before the deviation from the normal distribution becomes noticeable. With a single CAT bond available, 10% to 20% can be moved into the CAT bond without distorting the distribution very much, and with five independent CAT bonds, the CAT bond component could be as high as 50%. This is shown graphically in Figures 6 and 7.

Notice how much the expected return can be increased and the risk decreased by adding CAT bond exposure to the bond portfolio. Moving 5% into a single CAT bond increases the average return by 11 bp while simultaneously decreasing the risk (standard deviation) from 9.20% to 8.75%. Moving 10% into five independent but similar CAT bonds increases expected return by 19 bp, but decreases the risk further to 8.29%.

FIGURE 5

IMPACT OF THE CORRELATION BETWEEN THE NEW ASSET AND THE ORIGINAL PORTFOLIO ON THE STANDARD DEVIATION OF THE NEW PORTFOLIO

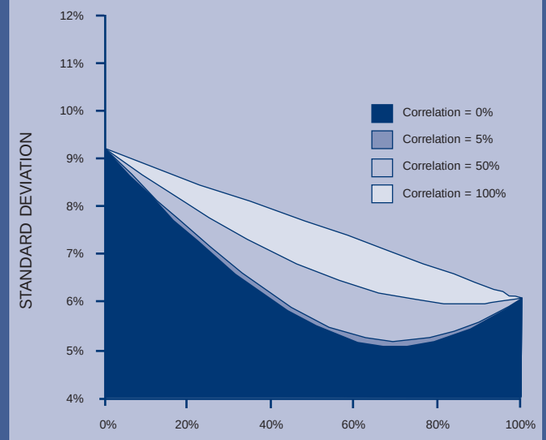


FIGURE 6

RETURN DISTRIBUTION FOR A PORTFOLIO WITH 10% IN A SINGLE CAT BOND AND THE REMAINING 90% IN A DIVERSIFIED BOND PORTFOLIO, FOR WHICH WE ASSUME A NORMAL RETURN DISTRIBUTION.

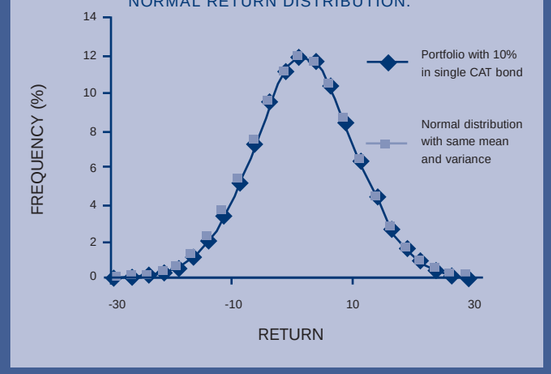
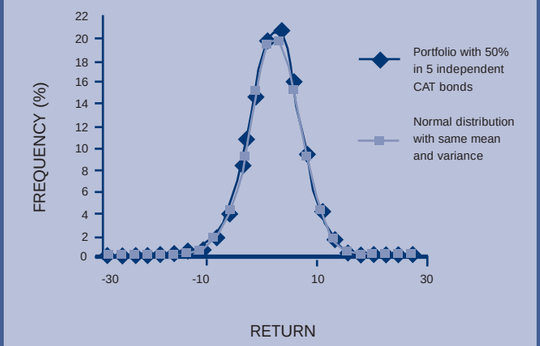


FIGURE 7

RETURN DISTRIBUTION FOR A PORTFOLIO WITH 50% IN FIVE INDEPENDENT CAT BONDS AND THE REMAINING 50% IN A DIVERSIFIED BOND PORTFOLIO, FOR WHICH WE ASSUME A NORMAL RETURN DISTRIBUTION.



Summary

The advantages for investors are unambiguous. Uncorrelated new assets with high excess returns enhance portfolio returns and improve Sharpe ratios even for well diversified fixed income portfolios – a combination of yield enhancement and risk reduction. The same analysis can be applied to other risks capable of being financed through securitisation, including weather, asset residuals and life. The market for insurance securitisations is developing and growing, including established repeat issuers and market debutants with new covers and risks not seen before. The benefits for investors can be expected to continue to increase as the diversity of uncorrelated risks increases to all the areas of insured catastrophe exposures around the world.

By Eduardo Canabarro and Markus Finkemeier of Goldman Sachs, and Richard R. Anderson and Fouad Bendimerad of Risk Management Solutions.

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The use of multi-year policies within Lloyd's syndicates

Multi-year policies may seem to the uninitiated to be incompatible with the traditional annual Lloyd's venture. In fact, they are widely underwritten at Lloyd's. Multi-year policies are often a part of an ART solution, whether because of the client's need to smooth loss experience over a number of accounting periods, or to reduce the relatively high frictional costs of complex ART products. It is important therefore that, by considering legal, accounting and reporting principles, Lloyd's managing agents can determine more precisely the suitability of multi-year policies for their syndicates.

For the purpose of this article, a multi-year policy is defined as a contract of insurance (whether inwards or outwards) in which the period of risk exceeds 12 months and the costs and/or benefits affect more than one year of account. This definition also includes outward policies with an option for a reinsured syndicate to continue or discontinue at 12 months and policies which have not expired when the reinsurance to close is arranged at the close of the first year of account.

Legal and accounting principles with reference to Lloyd's Byelaws

When considering a multi-year policy, a managing agent must ensure that it complies with its obligations and fiduciary duties as an agent to its principal i.e. its investors. In particular, it should have recourse to the Syndicate Accounting Byelaw (No. 18 of 1994) to determine whether a multi-policy year contract is in accordance with specific accounting and reporting requirements.

Contained in this Byelaw are two concepts of particular importance:-

1 EQUITY BETWEEN MEMBERS

Policies which affect more than one year of account should be accounted in such a way to ensure a treatment which is equitable between members of that syndicate. In particular, members of the same syndicate but on different years of account should pay a premium to reinsure to close an account which reflects the nature and amount of the liabilities reinsured. In practice this means that no one member on one year of account should be unfairly disadvantaged in favour of a member on a different year of account of the same syndicate.

Particular problems may arise with experience accounts where the amount of premium to be paid is determined by the performance of the account over several years such as by profit commission, deficit clauses or aggregate claims experience. In such cases, a prediction of the likely outcome of the account should be made at inception. Equity between members is unlikely to be an issue for Single Member Corporate Syndicates (SMCS) unless there is a parallel syndicate or unless the contract covers open years of account with more than one member.

2 THAT THE UNDERWRITING ACCOUNT FOR A CLOSED YEAR SHOWS A TRUE AND FAIR VIEW OF THAT YEAR

When a managing agent enters into a contract, it should consider the potential position of a year of account at the end of the first and subsequent years. If the premiums, recoveries, or liabilities in any one year are uncertain and these sums are material to close that year, it may not be possible to calculate an equitable premium for closing the account. Therefore, the account may need to be put into run-off and will be subject to the requirement of the Run-Off Years of Account Byelaw (No. 17 of 1989).

A Lloyd's syndicate may enter into both inwards and outwards contracts where the period of cover exceeds 36 months under the condition it complies with principles (1) and (2). In the case of contracts providing for an annual renewal which are intended to be legally binding on subsequent years of account, managing agents will need to take legal advice as to whether it is permissible and appropriate to bind future members.

Accounting issues

A multi-year contract may only be classed as an insurance revenue transaction if it complies with Lloyd's accounting principles applicable to all syndicate financial statements. Managing agents should be aware that regulatory reporting requirements and UK and overseas GAAP may require different treatment for multi-year policies within regulatory returns or corporate members' own financial statements.

The following aspects of multi-year policies present particular accounting issues for syndicates to address:-

A SINGLE PREMIUM

This sum may be due at inception of the insurance contract. It could be attributable to the year in which the policy incepts or it may be apportioned over the full period of risk with annual transfers of premium. The premium transferred should be proportionate to the risk accepted and the same principle applied to each year of the contract's duration.

B ANNUAL PREMIUM

A separate annual premium is due at the outset of each year of account when the contract is renewed.

C ADJUSTMENT PREMIUMS

Adjustment premiums may be paid to reflect the insurance risk transferred or the actual claims experience to date. There are two classes of adjustment premiums: contractual additional premiums and additional premiums paid when a contract is renegotiated and when the reinsurer has the right to re-rate the protection offered.

Contractual premiums are usually allocated to those year(s) of account in which the business which is afforded protection is undertaken.

D EXPERIENCE ACCOUNT

Experience accounts may take many forms:-

- profit commission based on the performance of the whole account;
- additional premiums where the contract has performed at a loss;
- limits on the aggregate claims in any one year of cover;
- maximum limit on aggregate claims made throughout the course of the contract;
- limits based on when the claim is made;

Interest and expense charges may be levied in addition.

The use of multi-year policies within Lloyd's syndicates

It should be possible to determine to which years of account a transaction is to be allocated. This is a complex area of accounting, particularly where the transactions are generated by factors embracing more than one year of account (e.g. maximum aggregate claims in total).

E RUN-OFF YEARS OF ACCOUNT

Where the premium for a multi-year contract is subject to annual renewal or portfolio transfer and the syndicate ceases to underwrite new business before the contract expires, or the members of subsequent years of account do not accept the renewal or portfolio transfer, the remaining premiums due and the related liabilities will remain with the open years of account subject to the terms of the contract.

Examples

These examples illustrate specimen outwards contracts. All policies are deemed to run for equal twelve month periods with inception dates of 1 January. They are designed to explain the accounting for premiums and claims relating to each policy.

60 months continuous cover for a single premium at inception

The premium could be allocated to the year of account in which the policy incepts and a proportion transferred to the next year of account, commensurate with the level of risk transferred.

60 months cover with annual premiums and experience account with profit commission or deficit clause at the policy's expiry

Where significant insurance risk has not been transferred, transactions under the contract are not revenue transactions and may cause balance sheet assets or liabilities for the insurer. Where significant insurance risk has been transferred, premiums and claims relating to that transfer should be allocated to the year of account in which the risk falls. Profit commission and deficit clauses terms may need to be assessed annually when the year of account is normally closed. This assessment should be reflected in the syndicates annual report regardless of whether any settlement is actually due at that time. The amount is then usually settled with the next open year of account, irrespective of whether any amount will be settled at the policy's expiry. This has the effect of recognising the profit commission or deficit clause for each year of account, rather than offsetting profitable and loss-making years in aggregate.

60 months cover with policyholder's option to cancel

The policyholder may choose to commute as at the end of twelve months at a significant rebate of the premium paid provided no claims are made. The policy remains valid for a further 48 months if claims have been made or if the policyholder chooses not to commute. Coverage terms may differ from those applicable in the first twelve months. Experience account conditions may also apply throughout the 60 months.

Premium for the initial twelve months should be allocated to the year of account to which any protection will be offered. If the cover is cancelled at twelve months, the rebate should be returned to the year of account to which the original premium was allocated.

If the policyholder continues the cover, the premium is allocated according to the level of risk under each 12 month period and according to the availability of cover for each 12 month period.

Where there is a maximum aggregate limit of protection for the entire 60 months which is exhausted at 36 months, it may not be appropriate to allocate the premium to the fourth and fifth years. In such circumstances, the premium would be reworked to recognise the full policy premium in the first 36 months.

This article is a summary of "Insurance Newsflash. Lloyd's: Multi-Year Policies", published in October 1999 by Ernst and Young. Further copies can be obtained from Peter Allen at Lloyd's on 020 7327 5040.

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Recent examples of worldwide ART deals:-

Cedant	Placement agent	Capacity	Coverage outline	Date
Gerling Global Re SPV: Namazu Re	Goldman Sachs, Aon Capital Markets. Risk modelling & analytical services provided by EQECAT Inc.	$100m	$100m of catastrophe bonds to protect Gerling Global Re from high-level losses from earthquakes in Japan. Losses occur when modelled losses exceed a yen-denominated attachment point. Losses are not dependent on actual losses to Gerling.	Nov 1999
American Re Capital Markets Inc. SPV: Gold Eagle Capital Ltd	American Re Securities Corporation, Merrill Lynch & Co., Salomon Smith Barney acted as placement agents. RMS provided risk analysis. Becher & Carlson Management Ltd will act as administration agent for Gold Eagle Capital	$182m	Payments will be determined by the RMS Cat Index. They provide cover for Eastern or Gulf Coast hurricanes or midwest or California earthquakes. Deal is structured in three tranches. The risk period runs through March 31, 2001.	Nov 1999
Koch Energy Trading Inc. SPV: Kelvin Ltd	Goldman Sachs RMS provided risk analysis	$50m	3-year transaction transferring to investors the risk associated with certain levels of annual losses across a fixed portfolio of 28 weather derivative contracts, each is based on temperature experience at one of 19 weather stations throughout the US. In the event of seasonal perturbations in daily temperature at the 19 locations, the collateral accounts backing the notes will be used to make payments to Koch Energy Trading, under a weather portfolio swap.	Nov 1999
ResidenSea Ltd	Centre Solutions, Westdeutsche Landesbank Girozentale	$260m	A surety bond, enabling ResidenSea to transfer the risk of a sales shortfall, during the construction phase, and to secure a portion of contingent financing. This becomes effective only if the sale of all 110 residential units is not achieved during the construction period.	Oct 1999
Unknown	Marsh & McLennan Securities Corporation	$50m	Insurance linked swap triggered by earthquake losses in states bordering the New Madrid Fault zone exceeding certain US insurance industry aggregate losses.	Sept 1999
Clearnet (clearing house for instruments traded on the Paris bourse)	Placed by Société Generale. Insured by Chubb. Reinsured by Swiss Re, Westdeutsche Landesbank, Commerzbank, Banque Internationale à Luxembourg, and Royal Bank of Canada Insurance Co.	Unknown	Policy covers a layer of 150 million euros ($159.1 million) of defaults on bourse members' trading, which triggers after defaults exceed the 170 million euros of insurance which was provided by Clearnet itself. Valid for three years.	Sept 1999

The above is derived from a fuller list which can be found on the ARTEMIS portal, accessible at www.artemis.bm.

Launched at the Bermuda Insurance Summit in May 1999, ARTEMIS provides underwriters, brokers, risk managers, CFOs and traders with information and greater transparency to help them understand how ART techniques can be used and who is there to help them. It receives some 60,000 hits per month.