ART WORK

LLOYD'S

ARTICLES

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"Miami Blue and Yellow"

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Welcome to the fifth edition of *ARTwork*. Thank you for providing us with your feedback on the first four editions. We found it very useful and have tried to respond to your requests.

Since the winter, we have continued our work on financial guarantee with the aim of changing the capital requirements for some of the classes of business which we hope will encourage the development of our capabilities in this area.

We have also been working on the wider use of securitisation techniques within Lloyd's as an alternative to traditional reinsurance.

If you have any comments on the articles in this edition or wish to make a contribution for future editions, please contact me or the editor, Simon Johnson. Our contact details are on the back.

Peter Allen
Head of Alternative Risk Transfer

Credit Derivatives and Insurance – a World Apart?

By Maria Ross and Charlotte Davies, Norton Rose

It is a truth universally acknowledged (well – in the insurance world at least!) that insurance companies cannot enter into derivative contracts (unless the contract is entered into "in connection with or for the purposes of" insurance business – for example, if the insurer is hedging its own portfolio). What an insurer *cannot* do is enter into a derivative contract for commercial reasons. This gives rise to a certain friction between what insurers are permitted to do and what they wish to do. It is also an issue for the capital markets who are thereby denied access to the vast capital resources available to many insurance companies which could well facilitate greater volumes of derivative activity.

This friction goes a long way in explaining the current market interest in "transformer" companies. As their name suggests, these are companies which, in effect, "transform" a contract, in this case a derivative contract, into an insurance policy. To understand why these companies are becoming popular, it is worth looking at the underlying issues more carefully.

The Similarities and the Differences

Similarities

Broadly, a credit derivative is a financial instrument designed to assume or lay off credit risk on loans, debt securities or other assets or in relation to a particular entity or country. In return for the laying off of risk, there is a payment from the originating party to the counterparty. Credit derivatives may take the form of credit default options, credit-linked notes or total return swaps, but the product which is most similar to insurance is the credit default swap. Credit default swaps typically pay out on the occurrence of a specified credit event – such as the insolvency of the referenced entity, or a material deterioration in that entity's credit-worthiness.

Compare this, then, to insurance, or more particularly credit insurance, which is defined in the Insurance Companies Act 1982 ("ICA") as being insurance against "loss to the persons insured arising from the insolvency of debtors of theirs or from the failure (otherwise than through insolvency) of debtors of theirs to pay their debts when due". Thus the same or a similar kind of risk could equally well be offset either by a derivative or an insurance product, both being contracts of indemnity and having a similar economic effect.

Differences

Although insurance and derivative contracts can be extremely similar, a derivative contract is not an insurance.

One needs to understand the meaning of "insurance" in order to appreciate the difference between the two.

There is no English statutory definition of a contract of insurance but case law has identified certain essential elements as follows:

- there must be a promise to pay;
- the insured must have an insurable interest in the subject matter of the policy;
- what the insured purchases is the right to receive monies on the occurrence of an uncertain event (the key feature being that there must be an element of contingency, either as to the happening of the event or as to its timing);
- there must be a premium passing between the parties.

It is also worth considering the commercial effect of an insurance contract, which is to transfer risk from one party (the insured) to another (the insurer). Where there is doubt as to the correct characterisation, then as with any contract, what is likely to carry most weight with an English court is the substance of the contract as a whole, taken in its commercial context. How the parties chose to describe the contract will be of little persuasive force. Furthermore, it has been established that either the contract as a whole is a contract of insurance or it is not. Only where the principal object of the contract is to insure will the contract be one of insurance. So a contract which contains an element of insurance which is collateral to its principal purpose will not constitute insurance.

The most important of the above features for the purpose of distinguishing credit insurance from a credit derivative is that the insured must have an insurable interest in the subject matter of the insurance. In other words, the insured must stand to lose financially if the event insured against happens.

The statutory definition of "insurable interest" is as follows:

> *"a person is interested in [a marine] adventure where he stands in any legal or equitable relation to the adventure or to any insurable property at risk therein, in consequence of which he may benefit by the safety or due arrival of insurable property, or may be prejudiced by its loss, or damage thereto, or by the detention thereof, or may incur liability in respect thereof."*

The key concept is that of loss – is the insured's relationship with the matter insured such that he would incur financial loss should the risk insured against occur? If not, then the requirement that there must be an insurable interest is not satisfied. (Nor indeed is the requirement that there be a transfer of risk, since one cannot have a transfer of risk unless the insured would otherwise be exposed to that risk.)

Note, however, that the test is two-pronged: there must be a legal or equitable relationship, as well as an economic interest. Thus, for example, under English law, an individual cannot insure against being disinherited by his parents; nor can a person take out life assurance on the life of any other person save where he stands to suffer financial loss on that death (the most famous case in this respect involving the courts' refusal to classify as insurance a contract by a subject to insure the life of the King!), in both cases because there is no legal or beneficial interest in the property in question. (Note that it is this requirement of a legal or equitable interest that distinguishes insurance from gambling.)

So whilst it can be seen that the commercial and economic effects of credit derivatives can be similar to contracts of insurance, there is a clear conceptual distinction:

- With a credit default product, the event triggering payment is the occurrence of the credit event and not

the *loss suffered* by the originating party as a result thereof. The existence or otherwise of such a loss is irrelevant to the contract.

- Under the terms of an insurance contract, however, loss to the insured is critical. If the insured has not suffered a loss, the insurer will not be under an obligation to pay.

In the case of a credit default product, although the originating party may suffer a loss if the relevant credit event occurs and, indeed, may have entered into the credit derivative specifically to hedge against that risk of loss, the counterparty is obliged to pay the originating party on the occurrence of the credit event *whether or not* the originating party has actually suffered a loss.

Why Does the Difference Matter?

The difference is probably of greatest significance in relation to regulation. In the UK, a contract of insurance can only be issued by an authorised insurance company; an insurance contract issued by a non-authorised party will be unenforceable by the issuer and monies paid under it may be recovered by the insured, together with compensation for loss. In addition criminal sanctions are available against the issuer.

Conversely, UK-authorised insurers are prohibited from carrying on any business "other than in connection with or for the purpose of its insurance business" (section 16 ICA). (The intention of section 16 is to ensure that the business of insurance companies is completely ring fenced and isolated from the risks associated with any other commercial activity, whether regulated or not.) Thus a credit derivative issued by an authorised insurer could be unenforceable, and the wrath of the regulator will no doubt be incurred!

In addition, a number of consequences flow from a contract being one of insurance rather than non-insurance and these are, generally speaking, undesirable from a commercial perspective. Two of the most relevant in this context are, first, that insurance premium tax at the rate of 5% is payable on insurance premiums. Secondly a contract of insurance is a contract of utmost good faith. Whilst all contracts (including derivatives) are subject to considerations of good faith to the extent that the law cannot support fraud, in ordinary commercial contracts, parties are not required to reveal all that they know about the proposed agreement. Subject to certain statutory protections available to purchasers (and in particular consumers), the common law applicable to most commercial contracts is that of "caveat emptor" (let the buyer beware). Not so for insurance.

The "utmost good faith" doctrine means that a duty of full disclosure is imposed on both parties to the contract. In practice, the duty of the insured to give full disclosure is the only one of importance. The duty is onerous – the insured must disclose all material facts which he knows or which he should have known about. The consequence of failure to disclose all material facts is, in English law, also harsh – the insurer can consider the contract void and avoid payment completely.

The consequences of whether a contract is one of insurance or not is also of particular relevance to the securitisation of insurance risk, where care must be taken to structure any note, or insurance-linked derivative, as a derivative, as otherwise the note-holders could be held to be carrying on (unauthorised) insurance business as a result of holding the notes.

Thus any person who wishes to write a credit derivative has plenty of reasons to ensure it is not actually a contract of insurance!

How Do Transformer Companies Work?

So, although insurers may wish to write credit derivatives, they may not do so. Bodies (such as banks) which do want to write credit derivatives need to take precautions to ensure the contracts they write cannot be characterised as insurance.

The first of these issues has been addressed by the development of transformer companies.

Although UK insurers cannot write derivative products, they are allowed to enter into insurance policies to insure a counterparty in a derivative agreement. Such a policy would indemnify the counterparty against having to pay losses incurred under the derivative agreement. The transformer effectively places itself in the middle of a structure, enabling the insurer to issue an insurance policy one step removed from the derivative contract.

In a typical transaction, the transformer would write the original swap contract, and the UK authorised insurer would then insure the transformer company, hence avoiding section 16 ICA problems. For the insurer there may also be the opportunity to offset its insurance liability by reinsuring the risk.

In addition, depending on the place of registration of the transformer, it is possible to transform an insurance risk into a derivative contract (i.e. the converse of the above structure – a transformer entering into an insurance policy and then offsetting the risk via a derivative contract). This is possible because in certain jurisdictions (for example, Bermuda) insurance companies are permitted to carry on non-insurance business.

It is also worth noting that although many transformer companies are set up as shells (i.e. with insufficient capital to honour their commitments under the derivative contract without the benefit of the insurance), and it could therefore be argued that the transformer has only a technical (and artificially constructed) liability to pay rather than an actual one, (i.e. casting doubt on the existence of an insurable interest) the inclination of the English courts is to find in favour of an insurable interest whenever the facts allow. Economic effect is not the test applied to the characterisation of a contract.

However (and notwithstanding the above) it is important to observe the legal niceties of the distinction between insurance and derivative contracts and not, in transformer structures, to make the two contracts entered into with the transformer completely "back to back". (The same principles should be observed by parties writing derivatives who desire to avoid the contract being classified as insurance.) The following suggestions may be of use:

1. the policy should have its own self-contained terms (rather than incorporating and annexing the derivative agreement). In particular, the parties should define and include all the key financial provisions of the insurance within the policy, rather than relying on the derivative contract;

2. the liability under the policy should not exactly match the insured's liability under the derivative agreement (i.e. there should be a retention of some kind under the policy or some other financial liability for the insured);

3. where, under a standard ISDA agreement, payment is by instalments with such instalments diminishing if an obligation ceases to be part of the portfolio, be wary of matching this exactly by an identical proportionate premium rebate under the policy;

4. the benefits of the policy should not be freely assignable, particularly to the originating party.

If the above suggestions are followed, we believe that the risk that a court would characterise the role of a transformer as a mere device, in a structure where the true purpose and intent of the parties is that an insurer writes a credit derivative, would be materially reduced.

This is a grey area of law and it is difficult to state with any certainty where the dividing line between insurance and derivatives is drawn. However, adherence to the above guidelines should result in the relevant contracts, if ever challenged, satisfying the requisite criteria to keep on the right side of the regulators!

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Pricing and hedging of contingent financial products using financial and insurance techniques:

FX tender hedges, an applied example

By Thibaut Adam, BNP Paribas, London

Problem definition

In the financial world, the usual pricing and more importantly hedging methodology is based on the replication of cash flows on a deal by deal basis. This technique has been refined over the years, enabling banks to deal in increasingly complex derivatives structures, while keeping the level of net risk exposure on the bank's books truly limited.

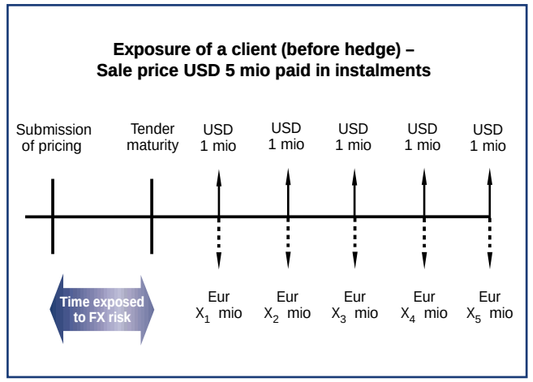
Insurance companies are on the other side of the conceptual spectrum as they do not hedge each individual risk. However, they do reinsure parts of their individual and portfolio losses on a global basis. Pricing is often based on a "burn rate" analysis using historical data.

With the convergence of insurance and financial products, BNP Paribas came across a new class of product which clearly looked similar in structure to a financial contract but introduced a "contingent feature" which forced us to look into the insurance world to provide a solution. An example of such a product is the foreign exchange tender hedge ("FX tender hedge").

FX tender hedge : an example of a contingent financial contract

In international tenders, companies routinely commit to fixed prices, denominated in foreign currency, until the outcome of the tender is known. This leaves the bidding companies exposed to FX risks during the time of the negotiation. See figure 1.

Figure 1.



It is not uncommon for industrial companies to have net margins in the 5%-10% range. Over the past year, Euro and Yen have weakened by 2.5% and 12.4% respectively against the Dollar. Such changes could have a potentially large impact on the net margins of such companies. These companies are looking at efficient solutions to fix their commercial margins regardless of FX movements until tender maturity.

Limitations of traditional financial solutions

In the financial world, such risks would be dealt with using the standard toolbox of forward contracts and FX options. However, these solutions are either incomplete or potentially redundant as they only deal with the FX movements and do not take into account the risk on the success of the tender itself:

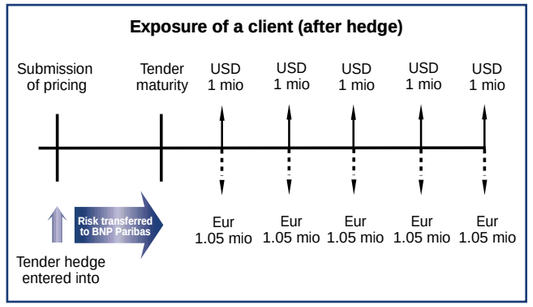
- Hedging the full exposure with forward contracts (selling USD against EURO forward) is a cheap solution as no up-front premium is required but leaves companies at risk if the commercial contract does not materialise and FX rates move against them;
- Buying options improves the final risk profile as companies using them will not have to pay anything at the end. However, the initial premium is costly, reflecting the fact that even if the commercial contract is not signed, the FX option position itself could be liquidated at profit for the exporting company.

Banks have tried to market "compound options" which are in fact an option on an underlying option. These options work with a two-step premium: the first premium is for the option on the option and accordingly represents a low amount compared to a regular option premium, the second is the premium paid on the underlying option. It seemed a good way to reduce the initial cost to the client but taking into account the second premium, the overall cost to the client is higher than a straight option. Clearly, using purely financial techniques, banks could not provide an efficient coverage for these risks.

Pricing and hedging contingency

The shortcomings of pure financial products clearly show that unless the bank is ready to tackle the contingent event itself (i.e. taking the risk on the outcome of the tender), no true and cost efficient solution can be found. In order to achieve a true risk transfer, the bank has to build a different modelling and risk-taking approach. See figure 2.

Figure 2.



To achieve a true risk transfer between the submission of pricing and tender maturity, we have to assume non-replicable risks. The three main issues in this modelling are:

- the probability of the client winning the tender;
- defining a consistent benchmark for risk, allowing the bank to have a correct remuneration for the net risk exposure taken; and
- setting up a partial hedging strategy to limit the variance of the profit & loss of the bank in dealing with these products .

The probability of winning the tender

Layout of the problem

The whole problem is more or less solved if the actual probability of the client winning the tender is known. If we are sure that each client has, for example, a 40% probability of entering into the commercial contract, the solution on a portfolio basis is to simply hedge 40% of the trades using forward contracts.

Although this solution can seem quite naive, it seems at least one insurance company active in the market has used a similar technique. Since it benefited from a large number of deals every year, volatility in observed success probability was smoothed out. Moreover, it had considerable historical data on tender outcomes which enabled it to benchmark the anticipated probability of success embedded in the pricing with the actual historical pattern of success.

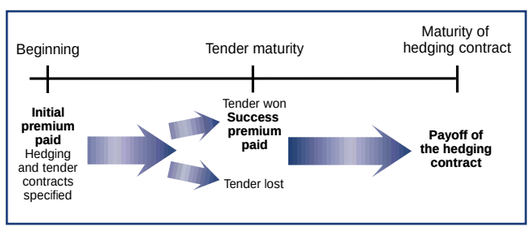
How to model the trade without historical data

When the number of deals generated is smaller and no reliable database of past tenders is available, estimating the success probability becomes a problem.

To solve this issue, BNP Paribas decided to rely on the client, who, in our view, has a better understanding of its own probability of winning the tender. In order to make sure that the client has truly selected its best estimate of the probability, the best solution is to offer the client a financial incentive to give an accurate estimate.

Practically, the answer to this problem comes under the form of a "pricing grid" which integrates a pair of "initial" and "success" premiums for each probability of entering into the commercial contract. The success premium is only payable by the client if it wins the tender. This activates the FX hedge. See figure 3.

Figure 3.



The logic of the construction of the pricing grid is quite straightforward:

- Low probabilities of winning should allow for a small initial premium and high success premiums.
- High probabilities of winning should have a large initial premium and very low success premiums – even sometimes a partial refund of the initial premium.

The construction of a consistent pricing grid requires the use of a methodology to benchmark and charge for a given level of risk exposure.

Benchmarking risk through utility functions

Once a risk horizon has been set, a utility function is used to define a given state of risk aversion – or the amount of money we need to enter into a lottery where we have a 50/50 chance of either making or losing X amount of money.

Of course, this amount will vary non-linearly with the amount X, as we would naturally require a larger up-front premium when the money at stake is GBP 30 mio than for GBP 1 mio.

A utility function can be described as an increasing function that defines the relationship between our resources and the return we expect from risking it. It therefore defines our required Return on Equity (RoE) for the risks we will be taking on each tender. The higher the risk aversion parameter, the higher the implied RoE on each transaction. This utility function allows us to compute the full Pricing Grid. See figure 4.

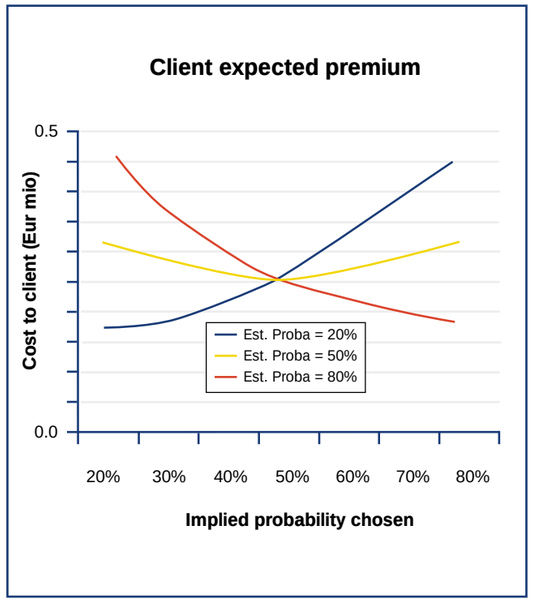
Figure 4: Example of a pricing grid (in % of notional)

Success proba.	Inital premium	Success Premium
20%	0.210%	1.361%
30%	0.326%	0.918%
40%	0.481%	0.486%
50%	0.677%	0.054%
60%	0.918%	-0.386%
70%	1.211%	-0.844%
80%	1.572%	-1.333%

It should be noted that the pricing grid changes according to the market value of the risk (i.e. the implied volatility quoted in the FX option market). Although the perfect hedge cannot be bought in the FX option market because of the contingency feature, the residual risk is nevertheless calibrated using real market parameters.

Another feature of the pricing grid is that the client has a true incentive to indicate their best estimate of the probability of success in the tender – i.e. by choosing the right pair of premiums which will result in lowering the expected cost of their hedge. See figure 5.

Figure 5.



The amount of "overcharging" when a client has selected a sub-optimal probability of success is computed in order to compensate for our expected loss stemming from such an inaccurate probability. Again this amount is consistent with our utility function.

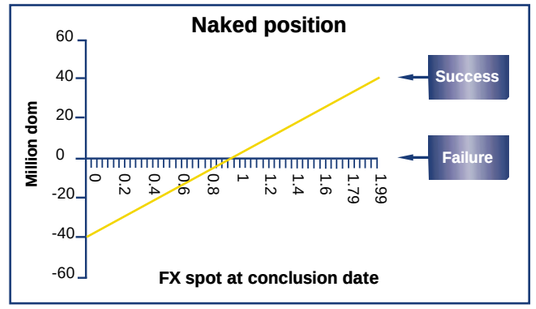
In terms of absolute pricing, FX tender hedge is much cheaper than a vanilla FX option. The first premium of a compound FX option can be designed to be lower than the initial premium of a FX tender hedge but the overall cost is much larger than the cost of a FX tender hedge. However more importantly, only a FX tender offers an efficient hedge because it deals with the primary risk (the tender outcome) as well as the financial risk.

Defining an optimal hedging strategy

The idea behind the optimal hedging strategy is to change our risk profile on a trade to optimise expected profit (mean of profit and loss distribution on the portfolio of FX tender hedges) and reduce volatility (variance of the distribution).

For any given FX tender hedge, our unhedged P&L at tender maturity is represented in figure 6:

Figure 6.

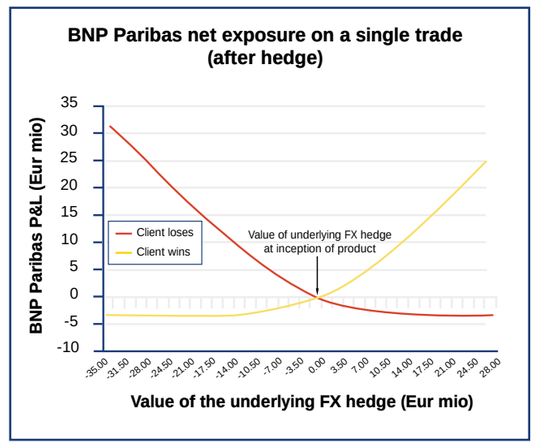


In defining our optimal hedging, we will take several items into account:

- the absolute admissible loss per trade; and
- the available hedging instruments in the FX market.

Through entering into a series of options on the underlying FX cash flows, we can alter the risk profile of a trade at tender maturity. See figure 7.

Figure 7.



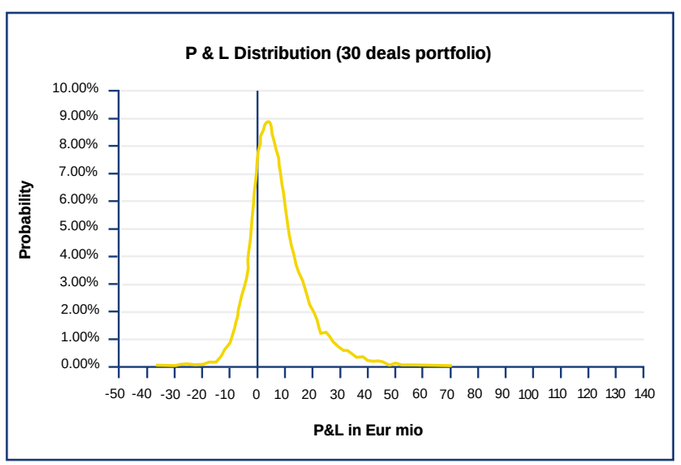
The portfolio approach: looking at the global picture

The real interest of this activity lies in the behaviour of the portfolio as a whole. As we know, the effect of diversification has no influence on the mean of profit distribution on the portfolio but greatly reduces its variance. By reducing variance, we reduce our *value at risk* (i.e. economic capital) and optimise RoE.

Based on a portfolio of specific deals, and specific assumptions of currency drift and volatility, as well as modelling each client's error in estimating its success probability, we can compute the profit and loss distribution by using Monte-carlo simulations.

These simulations enable the bank to determine economic capital and expected RoE on the portfolio (defined as expected mean – our profit – divided by economic capital). See figure 8.

Figure 8.



Residual risk exposure

Although optimal hedging enables the bank to limit its downside risk on each trade, thereby reducing variance on the portfolio, some exposure remains in that we can neither:

- accurately predict the real probability of each client: or
- lock the real currency drift.

The pricing grid and its underlying methodology does give strong guidance in dealing with the first risk, as it allows the bank to be compensated according to its utility function. This relative "indifference" (because adequate compensation is received) is however quite different from the traditional immunisation brought by full replication hedging.

The real currency drift cannot be hedged simply. The only way to mitigate this risk is to build a book which has a balanced exposure on currency pairs. Having roughly the same amount of notional of long and short exposures on several tenders results in a true hedge on the drift of currencies until tender maturity.

As the corporate world is developing a better understanding of the nature of all risks, it is also trying to optimise its risk profile in an efficient manner. This requires banks and insurance companies (or risk solution providers) to push their traditional expertise further to create truly tailored-made products. The example of tender hedge, which BNP Paribas is about to launch commercially after a long product development, is just one illustration of such a process.

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Lloyd's in the real world of ART transactions

By Philippa Schofield, JLT Risk Solutions

One of the chief criticisms of publications and talks about "ART" is that real transactions are rarely described in the detail which would attract the attention of the audience. To some extent this is because many transactions are subject to strict non-disclosure agreements and can therefore only be described in broad outline if at all. It is also influenced by paranoia about revealing precious intellectual capital to the competition. The cynical might even say that the absence of deal descriptions illustrates how very few "ART" transactions have in fact been concluded.

JLT Risk Solutions Ltd has publicly made much of the central role of "ART" both in our recent growth and in our strategy for the future of our business. The purpose of this article is to demonstrate that not only are "ART" transactions regularly closed in the world-wide markets, but that Lloyd's of London frequently participates in these transactions, and has in our view a strong, continuing role to play as "ART" evolves.

Of course, the role of Lloyd's in the world of "ART", depends very much on how we choose to define "ART" itself. At JLT Risk Solutions we see as the core of "ART" the application of insurance solutions to assist our clients in financing, expanding and protecting their business – in effect, the application of insurance as contingent capital. To be "ART" a solution need not be complex, but it will invariably support the raising of finance and will operate in tandem with the capital markets.

Lloyd's has historically played a strong role in developing some of the concepts and structures that are now more frequently utilised in the Alternative Risk markets. Finite reinsurances and contingency risk placements such as force majeure, which were significantly developed in the Lloyd's market, bear many of the characteristics of the transactions that are now generically referred to as "ART".

Whilst perhaps the methodology utilised in underwriting those risks in the past was not as sophisticated as the market now recognises as being appropriate, the structure of the Lloyd's market and its entrepreneurial approach to business provided the starting point for many of these innovative transactions, all of which lent essential insurance support without which enterprises and projects might never have reached fruition.

Of course, the experience has not been all good. Thirty years ago Lloyd's was involved in the Residual Value insurance market providing guarantees under computer equipment leases, which with the benefit of hindsight, was an ill-advised venture. Its dabbling with time and distance policies and, in particular, with coverage for asbestos liabilities in the US also demonstrated that structuring solutions for such risk financing issues requires a great deal more technical capability than a simple quantification of the perceived exposure. Nonetheless, the structural nature of a syndicate, coupled with the extraordinary and unique distribution network of the Lloyd's broker community provides what should be the ideal platform for an innovative marketplace.

Whilst Lloyd's has put in place the theoretical structure to underwrite pure financial guarantee, it has not yet entered that arena and in the opinion of JLT the regulations may indeed make it impracticable to do so. However, securitisation transactions can be enhanced by various means and not solely by a straight financial guarantee. Credit support can take the form of over-collateralisation or reserve funds within the structure, and traditional insurance, for example trade credit or political risk, can be applied to provide the necessary support enabling a transaction to be placed in the market.

Political risk insurance has long been written at Lloyd's in forms that enable alternative risk financing and intensively so since the "Chairman's letter" of 1982, which regulated the writing of contract frustration. In 1990 the rules were amended to allow certain policies to be written to banks, and subsequently in 2000 to explain more clearly the extent to which Lloyd's underwriters could support non-trade-related lending. Trade credit insurance has been available at Lloyd's since 1993. In this area Lloyd's is a pre-eminent market as demonstrated by the two case studies below.

Last year JLT Risk Solutions worked with a major industrial company to address the negative view taken of its business by the rating agencies, because of its exposure to emerging markets. Our client, whose key assets are located in Southeast Asia – all low-rated countries – had a strategic need to re-finance some of its debt, but found its options limited by its sub-investment grade rating.

By utilising our expertise in political risk, we were able to structure a "credit enhancement" to the client's 144A Bond issue, which effectively removed the emerging market risk from the loan. To achieve the required limits, we needed to negotiate the participation of a broad panel of political risk insurers, including syndicates at Lloyd's, many of which had never provided cover to a capital markets transaction before.

Working closely with the client, the rating agencies and the arranging, underwriting and trustee banks, we were able to utilise the political risk insurance to secure a rating for the bond issue based on the client's local currency rating rather than the sovereign rating of the country involved, thus significantly reducing the cost of re-financing.

In another financing transaction for a client in the telecommunications sector, we were able to apply a trade credit insurance solution instead of the more usual financial guarantee. The insurance required syndication amongst a panel of carriers to achieve the limit of USD 500 million, and amongst the panel members were Lloyd's insurers who would not have been able to accept the risk had it been a pure financial guarantee.

Again, we worked closely over several months with our client, the lawyers and with the arranging bank to ensure that the sale of a portfolio of medium term loans to customers in emerging markets could be completed, thus freeing up the balance sheet of our client to expand their business in other areas. The trade credit insurance covers loans of up to seven years in duration and is a revolver in nature, allowing further loans to be sold into the facility once the original portfolio pays down.

Summarised in a few words, both the above transactions sound simple. What this does not convey is the many months of toil and sensitive negotiation with all the different parties involved, which culminated in a simple but effective insurance solution.

Careful negotiation was required in each case with the arranging bank, which would always start from the "no risk" position of seeking a straight financial guarantee; with the legal team, which ultimately produces an entire "bible" of documentation encapsulating the transaction, the insurance contract being only a small but crucial piece of the whole; with the rating agencies, which doggedly maintain their tried and tested standards; and indeed with the client, and the insurers.

Such transactions require a degree of staying power and flexibility from insurers, and may demand sudden swift reaction to a deadline after weeks and weeks of inertia. In this area the Lloyd's culture can come into its own. Compared with many underwriting teams within major insurance companies – even companies which themselves own Lloyd's vehicles – Lloyd's underwriters are used to being asked to price permutations on a theme, just as they are used to making swift decisions, and this has been a key ingredient of success in the transactions which we have closed with them.

Summary

Whilst Lloyd's may still not be able to offer pure financial guarantee, it can and does facilitate support by way of traditional insurance, and is particularly adept in acting as part of a package, assuming tranches of risk which may be unpalatable to a "wrapping" insurer or indeed to a monoline. Lloyd's can and does participate in the real world of "ART" transactions, and as individual syndicate ratings strengthen, we see a bright future for the market's involvement in capital markets transactions.

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Recent examples of worldwide ART deals

Cedant	Placement Agent	Capacity	Coverage outline	Date
Swiss Re SPV: SR Wind Ltd.	Swiss Re Capital Markets structured and underwrote the securities. EQECAT, Inc. provided modelling and risk analysis.	$116.4m	The deal covers Swiss Re against losses from certain windstorms in France and certain hurricanes in Florida and Puerto Rico. The securities are structured into tranches so as the A-1 notes and B-1 shares are exposed primarily to the French windstorm risk while the A-2 notes' and B-2 shares' are exposed primarily to the U.S. hurricanes. The contract is structured as a modelled index trigger based on the physical parameters of the risks, specifically wind speed. SR Wind Ltd. is a special purpose vehicle domiciled in Bermuda that was formed solely to issue the notes and shares and enter into the financial contract with Swiss Re.	May 2001
American Re Capital Markets Inc. SPV: Gold Eagle Capital 2001 Ltd.	American Re Securities Corporation structured the deal & served as co-lead placement agent and bookrunner on the offering, with Lehman Brothers and Merrill Lynch & Co. acting as co-lead placement agents. Risk Management Solutions, Inc. provided risk modelling.	$120m	The issue of catastrophe-related securities helps protect the consolidated group led by its parent company, American Re Corporation, from the financial impact of a super catastrophe (in this case Midwest earthquakes or Eastern and Gulf Coast windstorms). They are different from indemnity type cat bonds in that the protection they provide the (re)insurer is triggered by the size of an index of modelled insurance industry losses from specified types of catastrophic events, not by the actual losses incurred by the (re)insurer. There are two different tranches of the securities that collectively provide the American Re Corporation consolidated group with $120 million of potential payments as a result of certain U.S. catastrophes. The larger tranche raised $116.4 million from investors. Investors in the Notes will give up to American Re Capital Markets, Inc., a subsidiary of American Re Corporation, a portion or all of their investment depending on the level of modelled losses from actual events between now and March 31, 2002. The smaller, subordinate tranche is $3.6 million of redeemable Class B Shares of Gold Eagle, investors in which will also give up all of their redemption value if certain levels of modelled losses occur.	March 2001
California Earthquake Authority SPV: Western Capital Ltd.	Swiss Re Capital Markets Corporation (SRCM) and Goldman, Sachs & Co. Swiss Re provided the reinsurance layer.	$100m	The California Earthquake Authority (CEA) have arranged a combination of reinsurance and investment capital to arrange $100 million that will be available to CEA policyholders in the event of one or more major earthquakes over the next 23 months. The CEA signed a £100 million reinsurance contract with Swiss Re. Swiss Re Capital Markets Corporation (SRCM) and Goldman, Sachs & Co. co-led a private offering and jointly placed $97 million of preference shares that, in effect, will replenish Swiss Re's capital should such an earthquake occur. The floating rate notes have been rated BB+ by Standard & Poor's and Ba2 by Moody's. The insurer, Western Capital Limited, is a Bermuda special purpose vehicle whose common shares are held in trust. Payout of the notes is linked to an index of California earthquakes as determined by the Property Claim Services (PCS).	February 2001

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, CFO's 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.

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