

ART development and issues

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Written for and presented at 7th GCA, New Delhi 15-16, February, 2005

Subject Code (B) – Subject Group : General Insurance

The paper aims to understand the ART opportunities and explore how it would affect Indian scenario.

ART- Concept

Broad approaches to the management of risks are loss control, loss financing and risk reduction. The risk may relate to core or non-core business activities. Taking the risk//return trade off into account, company may like to eliminate non-core risks so that it can concentrate on core business. When it is realized that the risk cannot be 'eliminated', the only option that remains open is to 'manage the Risk'- i.e. understanding and closely managing risk exposures.

An enterprise is subject to risks from various sources- Financial, Strategic, Operational and Hazards. The essential element is to ensuring that no surprises arise. Losses may be acceptable to the Stakeholders provided there is appropriate economic evaluation i.e. costs & benefits are weighed before arriving at a decision. In the present era of competition maximizing enterprise value in order to provide investors with the highest possible share price often becomes the corporate goal so cost effective methods of risk management are invented. A company faces a number of risk exposures. If each individual exposure is considered and managed separately, the end result will be a series of individual insurance policies, financial derivatives, and other loss –financing techniques that are meant to provide protection. This may be a very inefficient way of managing corporate affairs because it may result into of excessive cost, over insurance/ over hedging, and capital mismanagement. Consequently the enterprise value maximization will not be achieved.

Moreover with globalisation and technological advances new industries with new risks have emerged. Hedging instrument exist for traditional property and casualty risks and other risks like foreign exchange rates. The market for major threats is often non-existent. The Corporate end-users actively managing risks demand appropriate and flexible solutions. As the Demand exists, alternative comprehensive risk financing instruments have come in on supply side integrating insurance, banking and capital market.

ART (Alternative Risk Transfer) is generic phrase used to denote various non-traditional forms of re/insurance and techniques where risk is transferred to the capital markets. On broader note it refers to insurance-linked securities. ART frequently involves risk retention, sometimes called as Alternative Risk Financing.

ART involves drawing capital from different sources- banks, capital market, insurers, shareholders etc and in the process affords opportunity for arbitrage between the price and products available in these markets, given their differential cycles, appetite for risks, cost of capital and regulatory frame work.

Risk management - basics

Loss control techniques vary according to the form and potential threat, but typically involve an upfront investment and/or ongoing cost. They are generally applied to risks that are retained. **Risk reduction** is managed by withdrawal from the business with the particular characteristics or diversification of exposures. **Loss financing** involves transfer, retention or hedging of exposures. It is ensured that adequate funds are available in the event of loss. Loss financing includes deciding optimum level of retention in combination with one or more of other techniques like self-insurance, captives, and contingent capital. The hybrid management of risk forms the essential part of ART market.

Pre-loss management prepares a firm for possible losses in a way that maximizes corporate value and covers legal and contractual obligations. Post-loss management ensures that a firm operates as a going concern with stable earnings and a minimal possibility of financial distress.

The variety of risk management techniques that a corporate implement come with a cost and has impact on enterprise value. A firm must, therefore consider the **cost of risk** – the implicit or explicit price paid to manage risk exposures – when it is creating a risk management strategy. The cost of risk comprises of various components of risk management so it includes costs involved on following:

- Direct and indirect losses arising from retained risks
- Loss control activities
- Loss financing activities
- Risk reduction activities

More formally, we can define pre-loss financing as anticipatory financing that is arranged in advance of any loss situation; this can include vehicles such as insurance, derivatives or contingent capital. Each form of pre-loss financing has an ex-ante cost associated with it, such as a premium payment, arrangement fee or bid-offer spread. Post-loss financing is the funding arranged in response to a loss event; it may come from cash/reserves, short-or long-term debtor or equity, each with its own ex-post cost (i.e. foregone investment income, interest expenses or dividend expense).

It is important to note that post-loss financing does not imply a lack of risk management planning, but simply that a company, in analyzing the costs/benefits and the likelihood of experiencing losses of a particular magnitude, opts not to bear an ex-ante cost for an uncertain event. Arranging financing in the aftermath of a loss event might be more expensive.

Emergence of ART market

Insurance deals with Pure downside risks. The users of insurance need liquidity and flexibility. This was tried to be provided through innovative products e. g. Bankers Blanket Bonds Insurance. But corporate and end-use clients seek new and more intelligent ways of covering traditional and non-traditional exposures. It is simple for firms to acquire and renew every year standard insurance/reinsurance and/or have basic derivatives hedges. But large companies seeking to manage their risks more wisely require more intricate or comprehensive solutions. This means greater demand for:

- Multi-year and multiple peril structures, including programmes that extend for 3 to 5 years (and more) and cover risks associated with multiple exposures (e.g. earthquake and hurricane, or business interruption and workers' compensation);
- Non-traditional covers, including new risks arising from a changing environment spurred by financial and trade deregulation, terrorism, reputation, intellectual property, technology, geopolitics, fraud, malpractice, non-catastrophic weather, the environment, and so forth;
- Flexible coverage, mechanisms, including selection at will from derivatives, insurance/reinsurance, capital markets instruments, captives, and so on;
- Integrated risk programmes including platforms that group together seemingly diverse exposures in a customized fashion to produce the most price – and resource-efficient coverage possible.

Since a comparative advantage in arranging a risk exposure might differ from that of assuming or managing the risk, the ART market can help to direct the risk to the institution, product or solution where the capability and advantage exists.

It is generally agreed that growing use of these techniques/vehicles during the late 1960s and early 1970s marks the informal start of the ART market. By the time many of the world's largest corporate risk managers had established retention and captive programmes, new techniques of risk transfer and risk financing began to appear. During the 1980s and 1990s risk-financing products – which focused primarily on the timing, rather than the transfer, of risks and cash flows – began to take greater hold. Various types of finite risk programmes, spurred growth in the ART market during this period. By the mid-to-late-1990s and into the new millennium, a combination of market cycles, product innovation, and deregulation ushered in a new wave of risk management mechanisms, including multi risk products, contingent capital instruments, securitisations, and insurance –related derivatives. These helped to foster advances in enterprise risk management in the late 1990s and early millennium; in fact, the future of the ART market rests heavily on further expansion in integrated approaches to risk management. The core of the ART market thus developed in incremental stages over a 30-year period.

Methods used

There exist so many of innovative combinations in the market that it is very difficult to give exhaustive list of instruments. Broadly they fall in two categories as follows.

Closer to traditional insurance market:

- Self- insurance (main advantage is low cost)
- Large deductible plan (insured can retain the cash till actual payment)
- Retention group (advantage of collective bargaining)
- Captives (discussed further in detail)
- Multi line/Multi year products (combining different categories of risk over several years)
- Multi risk products (discussed further)
- Time and distance (Financial reinsurance, gives protection against cash volatility through risk financing rather than risk transfer)

Closer to capital market:

- Securitisation (The process of removing assets, liabilities or cash flows from the balance sheet and conveying them to third parties through tradable securities.)
- Contingent surplus notes (acts like a standby financing in case of catastrophic losses)
- Contingent capital structure
- Insurance derivative

Some aspects of the ART market are very global in nature, while others are associated with national or regional markets. For instance, risk retention groups and multi-trigger products are particularly popular in the US and are used by an ever-growing segment of the market place; they are, however, less common in Europe and Asia. Captives, in contrast, are extremely popular with companies and insurers around the world – so popular, in fact, that a number of ‘captive friendly’ tax jurisdictions have developed in various locations to service local demand for captive business.

Captives

A captive is a closely held risk channel that is used to facilitate a company’s insurance/reinsurance programme and retention/transfer activities. It is generally formed as a licensed insurance/reinsurance company, controlled either by a single owner or multiple owners (often referred to as the sponsor(s)). The captives doing reinsurance can be in a different geographical region than the ‘fronter’. Bermuda is the most important domicile for captives in the world. Every year new locations are added that attract new captives by offering a favorable regulatory and tax regime.

Captives were originally developed in the 1960s as a “check” on the cost-efficiency of risk retention and transfer via traditional insurance contracts. Tax and financial considerations played an important role. They became popular in the 1970s as large corporations realized the cost advantages that could be obtained by managing their own risks and insurance coverage, particularly during hard market cycles. Popularity declined for a period in the 1980s as certain tax benefits were eliminated and insurance/

reinsurance markets softened; companies found, once again, that they could obtain cheaper cover through traditional risk transfer and risk-financing mechanisms. However, with harder markets and a growing focus on enterprise risk management developing in the 1990s, use of captives accelerated again – a trend that continued to gather momentum into the early part of the millennium. In fact, a number of new offshore captive jurisdictions have been created in recent years, proving that the demand for properly structured self-insurance vehicles remains strong.

The selection of an appropriate locale for the establishment of a captive is dependent on a number of factors, including insurance/reinsurance restrictions, capital and tax requirements, regulatory requirements, reserve requirements, premium taxes, political and regulatory stability, and infrastructure.

Operationally, captives manage their activities in the same way as any other insurance or reinsurance company, establishing unearned premium reserves and loss reserves, adhering to minimum capital/surplus levels, actively managing the risk portfolio and so on. This means that less predictable risks, e.g., high-severity/low-frequency exposures are still transferred to the reinsurance market, which is more readily equipped to handle them.

Captives can be structured in a variety of forms, and selection of the proper one is generally a function of a company's specific financial and risk management goals (e.g., retentions, costs, benefits, taxes). Various other combinations exist between these extremes, and noted below.

A **pure captive** (sometimes known as a single-captive) is a licensed insurer/reinsurer that is wholly owned by a single sponsor and writes insurance cover solely or primarily for that firm; a pure captive may thus be regarded as an insurer covering risks from restricted origins. In the event of a loss the sponsor forwards a claim to the captive and receives the relevant compensatory payment (as dictated by the terms of the coverage).

A **sister captive** is an extension of the pure captive structure. The entity is typically solely owned by the sponsor company, but writes cover for other companies that form part of the same 'economic family', i.e. subsidiaries or affiliates of the parent or holding company sponsor.

A **group captive** (also known as a multi-parent captive or an association captive) is an insurer that is owned by a number of companies and writes insurance cover for all of them. Ownership is often diverse and business is not confined to a single company or economic family. Indeed, in addition to writing cover for the group sponsors, a group captive generally writes third-party business (i.e. insurance cover for companies that have no owner relationship with either the captive or the sponsor companies).

A **rent-a-captive (RAC)** is a reinsurer that offers captive capabilities through a structure that is very similar to the group captive, but without direct ownership by the

sponsor/user(s). A company wishing to use a captive for purposes of administering a self-insurance programme, but not wanting to provide capital can use a RAC to achieve the same end goals. RACs are typically maintained and managed by a reinsurer or broker on behalf of an unrelated, third party owner.

Risk retention groups (RRGs) are retention vehicles that are conceptually similar to group captives, but are organized in a unique fashion and subject to different regulations. The RRG acts as a group captive insurer and is primarily involved in assuming and spreading the liability risks of its members via retention or pooling. Risk pools are often established on a national or risk basis, and may be formed as insurance pools or reinsurance pools. Examples of risk pools include the US workers' compensation pool, the UK terrorism risk pool, the Japanese auto pool, and the German nuclear risk pool.

Special purpose vehicles are the latest the breed of captive.

Finite risks

Finite risk insurance is a multi-year contract. The contracts come in various forms e.g. Contracts are issued based on retrospective (LPT) and prospective (RXL) variants. Contracts of Insurance work on the Law of large numbers. Risk is spread to large number of similar cases. In contrast to this individual risk is spread over time. The main advantages to customer besides other advantages of reinsurance are that the risk is spread over a few years and stabilization of risk cost. The premium is based taking time value of money into account. This allows increasing deductible and reduces the problem of over insurance. In respect of companies having these contracts mergers or takeovers are made easy. Such contracts are not available in traditional market. But these and other non-traditional contracts (say covering interest risk, exchange risk) in combination with traditional contracts are a very viable proposition.

Multi-risk products

These represent an innovative, flexible, and gradually expanding segment of the ART market. As the name suggests, a multi-risk product is an instrument that combines various exposures into a single contract, giving a firm an efficient and cost-effective risk solution.

Multiple peril products contracts that provide coverage for multiple classes of related or unrelated perils. Multiple peril contracts effectively eliminate the individual "slices" created for specific perils, amalgamating them into one comprehensive contract. Rather than insuring each exposure individually (e.g. P & C, catastrophic business interruption, workers' compensation), a company contracts to have all exposures covered in unison.

Integrated multi-line/multi-year products (MMPs) are important ART innovation. It is feasible to include special risks, currently only covered by banks, as well as those traditionally considered as uninsurable (e.g. political. business risk). Though they look

very attractive, had very slow growth due high transaction cost, credit risk, limited offering and lack of clarity in accounting principles etc.

Multiple- trigger products contracts provide coverage only if multiple events occur.

Dual triggers are contracts that require the onset of two events before payout occurs, while triple triggers are contracts requiring three breaches. Since multiple triggers provide payment only when the second (dual) or third (triple) events occur, the likelihood of a payout is lower than for similar multiple peril contracts, meaning that the cadent obtains cheaper protection. The lower probability of payoff means that risk that might have once been considered uninsurable are made insurable, a key benefit and important to the ART market in general. Indeed, insurers and reinsurers are often eager to write such cover, as the resulting joint exposure is unique and manageable, and permits better diversification within their own risk portfolios. In general, multiple trigger products are created as multi-year insurance contracts with annual trigger resets. Triggers come in several forms.

Since multiple trigger products have highly customized structures. The insurers and reinsurers have to spend time and resources developing them before reaching to client. While some aspects can be replicated, others cannot, meaning that they cannot then be re-offered to others as a 'standard' product. This makes the products costly.

Capital market issues and Securitisation

Insurance that faces overcapitalization, declining underwriting opportunities from commercial clients and the prospects of poor profits a new solution promises to be securitisation- the transfer of risk to the capital markets so that firms can restructure the balance sheets, manage capital more efficiently and write more business.

Not surprisingly, most Insured –linked securities (ILS) issuers are insurers and reinsurers that are eager to use another tool to manage their risk portfolios. Direct corporate issuance has been very small, with only a handful of issues appearing in recent years; in fact, most companies with catastrophic exposures find it simpler and more efficient to use standard insurance products to cover risks to hurricane, earthquakes and so on.

Most ILS issuance has occurred in the catastrophic risk sector, through securitisation of earthquake, hurricane, and windstorm risks; these are collectively known as catastrophic (cat) bonds.

Securitisation of insurance risks benefits various parties, including ceding companies, investors, and intermediaries. For instance, the ceding company (generally an insurer, as noted) can make use of another loss-financing mechanism to manage risk. During a hard reinsurance market this might be an attractive alternative in the cost/benefit framework.

The market for ILS can be segregated into catastrophic and non-catastrophic risk issues based on index, indemnity, or parametric triggers. Catastrophic bonds can be subdivided into securities that reference hurricane, earthquake, windstorm, and other low-frequency/high-severity natural disasters; they may be created to cover single or multiple perils per bond or tranche. Usually the capital raised is used to set up a specialized reinsurance company called a special purpose vehicle (SPV) similar to captive, which then issues a conventional reinsurance policy to the policyholders. This ensures that the transaction is formally recognized as a type of reinsurance for both supervisory and tax purposes. Non-catastrophic ILS can be classed into temperature, residual value, mortgage default, trade credit, and life acquisition costs.

Thus, capital markets issues referencing specific elements of insurable risk can be regarded as a legitimate mechanism and an important, growing, dimension of ART.

Contingent capital products

Unlike ILSs, which contain aspects of insurance/reinsurance and securities, contingent capital facilities are structured strictly as funding/banking facilities or securities transactions, with no element of insurance contracting. The aim is to provide liquidity and prevent insolvency. Capital is raised only when there is loss. The balance sheet is not disturbed till the option is exercised. It helps in complying solvency requirement. Accordingly, users must take account of a different set of regulatory, tax and capital treatment issues. Although, the contingent capital facility is not yet as prevalent in the ART marketplace as the 'ILS', companies developing broad risk management programmes must consider its use as an element of post-loss funding. Some of the most popular contingent capital structures, including:

Contingent debt: Any post-loss debt financing made available when specific events are triggered.

Contingent equity: Any post-loss equity financing made available when specific events are triggered.

The exercise of the option is, of course, dependent on the occurrence of the trigger event; it cannot be exercised at will or at maturity, as would be common under an American option or European option. The commitment, fee payable by the company can be viewed as the premium any option buyer would pay a seller.

Contingent capital products are based on triggers that are activated by a stated level of loss. The triggers can be created on a customized basis in order to match a company's exposure to a specific loss-making event, or they can be based on market indexes that are widely tracked; this is similar to the various triggers found on ILSs.

Since contingent capital is focused primarily on low-frequency disaster events rather than high-frequency/low-severity insurance events, it is meant to supplement, and not replace, other forms of risk transfer and financing (e.g. a firm would use an insurance policy to cover close to the mean risks, and a contingent capital facility to cover upper layers).

Contingent capital products also have the advantage of giving a company the ability to manage risks that might not be possible through other traded instruments.

A company arranging an issue of contingent financing relies on the provider of capital to supply funds when called upon to do so. The company thus assumes the capital provider's credit risk on a contingent basis. Credit risk issues are thus central to any contingent capital structure.

Within the general category of contingent debt we consider several structures, including committed capital facilities, contingent surplus notes, contingency loans, and guarantees. Although each features slightly unique characteristics, all have the same end goal; providing the company with pre-negotiated post-loss debt financing.

Not all contingent capital structures are debt-based. In some instances a company prefers, or requires, incremental funding in the form of either common or preferred equity. This helps to ensure that the post-loss recapitalisation efforts does not increase the debt burden and negatively impact leverage ratios; since the infusion comes in the form of equity, leverages is preserved or lowered. Two different forms of contingent equity are: the loss equity put and put protected.

Insurance derivative

Exchange-traded derivatives are characterized by standard contract terms, meaning that all participants trade the same underlying instruments. This helps to generate a greater critical mass of liquidity, leading to tighter bid-offers spreads and more cost-effective risk management solutions.

The earliest attempts at introducing a cat risk contract date back to 1992, when the Chicago Board of Trade (CBOT), one of Chicago's three listed exchanges, developed catastrophe futures based on an index created by the Insurance Services Office (ISO). Insurance derivatives are not only traded on exchanges, but can also be placed privately, or 'over the counter'. Insurance company can protect itself against catastrophe by buying call options.

While listed catastrophe derivatives have failed to generate interest or a critical mass, exchange-traded temperature derivatives – listed futures and options contracts referencing temperature indexes in specific cities – became popular and continue to expand, with new contracts appearing at reasonably regular intervals.

Some insurers/reinsurers manage their cat risk portfolios using the **catastrophe reinsurance swap**, a synthetic financial transaction that exchanges a commitment fee for a contingent payment based on the on set of a catastrophic loss. By doing so they obtain many of the same benefits provided by reinsurance or securitisation (e.g., portfolio diversification, increased capacity) but are able to avoid some of the structural

complexities and costs associated with negotiated facultative or treaty agreements or full ILS issuance.

In some instances reinsurers prefer to alter their portfolios through the pure catastrophe swap, a synthetic transaction that allows the exchange of uncorrelated cat exposures (and which may be documented through standard reinsurance agreements, thus appearing more as a swapping of reinsurance risks rather than a true derivative). Such risks being swapped are uncorrelated, participating insurers achieve greater portfolio diversification.

Other weather derivatives

1. Precipitation derivatives
2. Stream flow derivatives
3. Wind derivatives
4. Credit derivatives

Contractual differences still arise between the underlying documentation used by banks and insurance companies for transactions referencing the same risk. In the credit derivative market, for example, banks trade on the basis of market-driven events, while insurers are focused on proof of loss; this is a fundamental difference that becomes especially evident when a claim or payment must be made.

Growth in the ART market

In future years the growth is likely to be fuelled by many of the same elements that brought the market to its state of development in the early part of the millennium.

- Maximize enterprise value;
- Cope with market cycles;
- Access new sources of risk capacity;
- Diversify exposures;
- Cope with forces of regulation and deregulation

Dynamic Risk and Capital Management techniques (DRCM) are a business practice that assists insurance companies in the value creation process by providing risk and capital management advisory services. DRCM business practice provides assessment of a variety of issues like optimal reinsurance strategy, assets allocation strategies.

Barriers to growth: Although the drivers of future growth are strong, they will not go unchallenged. In fact, the sector faces considerable hurdles that will have to be overcome if truly efficient risk transfer and financing is to occur. Some of the barriers to growth, which will impact both intermediaries and end-users, include:

- Organizational complexities;

- Educational difficulties;
- Pricing challenges;
- Capacity/supply problems;
- Contractual differences

Reorganizing risk functions is a complicated task. Deviating from the practice followed years together changing the mindset of all those involved in decision-making is not easy.

Educating corporate end-users on both fronts is a challenging task that often falls to insurance brokers, banking specialists, financial advisors, and so forth. It is also a continuous process; as end-users must be kept abreast of changing regulations, market conditions, pricing issues, and solutions. The time and expenses associated with educational efforts may slow down the progress of ART- based risk management.

Growth of ART in India

India has the advantage that experience of emergence of ART market, its growth and various issues involved is available. We can learn lessons and accept certain realities.

The benefits from ART innovations are:

- Higher reward-risk ratio for investors, increasing efficiency of risk transfer
- Increased underwriting capacity and capital for insurers (since up front cash is better than assurance)
- Broader choice of coverage and earning stability for corporate
- Spur to financial growth for the government
- Protection from catastrophic risks for the society at large

Insurance prices have gone up globally and there is a case for ART. Despite this fact and the benefits, its usage is restricted even in developed countries. This may be because most of them are tailor-made and involves subjective elements in pricing. It depends on size and risk profile of the particular party and cannot be applied to other party directly. Standardisation will take a long time. There are regulatory and accounting conventions as described earlier in the paper, which needs to be sorted out in, order to clarify solvency issues. Insurance premiums have tax advantage ART tools may not have. The difficulties from the risk manager's point of view are: its infancy, lack of awareness and post contract inflexibility. Investors are doubtful about liquidity and pricing of Cat bonds.

Any new thing is always seen with suspicion and resistance is shown due ignorance. Bankruptcy, mergers and takeovers are not very common. Some times even the question arises as to what will happen to long- standing relationship of insurer & reinsurer. Rules are needed to do something and for not doing something. The action taken by the one of the public player appears to be appropriate. Start using ART solutions and then settle the doubts and frame rules.

It is observed that Temperature and Weather instruments are becoming popular. Rainfall insurance where claim depends upon deviation in rainfall has been implemented on pilot basis and is likely to be extended in more areas. There is a scope of Rainfall bonds (where the return depends on rainfall). The statutory obligation of doing business in rural areas may prove helpful in materializing the issue.

In the recent pass there were catastrophes like Gujarat Cyclone 1998, Orissa cyclone 1999, Gujarat Earthquake 2001. Due low penetration of insurance, insured losses could be covered through reinsurance. With higher penetration of insurance and industrialisation, the severity will be higher. With regulatory support Cat bonds may become popular.

The most likely non-cat risk that could be securitised is auto insurance. The barrier to securitisation, on investor side, is moral hazard- the possibility of manipulation of figures by the originator.

The main hurdle in taking holistic view is that within the corporate, risk management responsibilities are divided within different departments. They have to converge and appreciate the integrated approach.

With suitable tax structure India can become a center for Captives. Though the companies look well capitalized at present at present, in future they may need capital injection they could be allowed the securitisation route.

Brokers play a key role in allowing clients to access ART product. They may like to give broader cover comprising insurance and complementary products for quality security. This type of service will have appeal to the buyer though the evaluation of such arrangement is very difficult.

ART providers at present do not see Asia as target market. If they realize that the potential exists, present policy may change. Insurance cycle especially hard one gives rise to Development of ART solutions. Once they emerge they do not exit with the change in the direction of cycle but remain. Each corporation has unique risk profile and risk tolerance. Broadly in a reasonably developed market then, the response from the demand side would be as follows.

Small of middle-market companies that are still limited in operating scope and balance sheet size, the risk exposures are likely to be relatively narrow, and quite predictable. Their primary goal is likely to center on protecting against financial distress. Their demand for risk management services will be based on mechanisms that permit greater retention, including policies with higher deductibles and a captive (or a cell in a PCC/RAC), as well as those that provide excess layer protection against catastrophe.

Intermediate corporate risk managers are likely to be exposed to a much broader range of perils, thus requiring greater access to innovative solutions. Their primary goals are likely to relate to avoiding financial distress and lowering the cost of risk. They might therefore use captives or cells, multiple perils policies, basic finite structures, financial

derivatives and possibly contingent capital or excess layer coverage for low-frequency/high severity events.

Big corporate especially those having operations in many countries, will have most sophisticated plan. They will make use of the broadcast array of ART instruments and solutions, including captives, finite policies, financial derivatives, multiple trigger products, contingent capital structures, and ILSs. They may also consolidate and coordinate aspects of their programme through comprehensive ERM (Enterprise Risk management) platforms.

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References

Swiss Re sigma no.2/1999

Wild Sapte Research report (www.insuremagic.com)

ART glossary(www.aremism.com)

Alternative Risk Transfer by Venkatesh Mohan

Alternative Risk Transfer by Eris Banks

Alternative Risk Transfer by Deepak Godbole in Bimaquest published by NIA

Seminar papers on Banc assurance in India Edited by S.M. Padval and R K Parchure

Reinsurance: An Industry by itself by Dr. K.C. Mishra