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Study Guide

REINSURANCE CONTRACTS: ONLINE CPD COURSE 2020 /2021

Anna Bouhail ©

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Course summary

The course outlines the concept of reinsurance policies. The different terms and conditions that can be attached to an insurance policy as well as products that can be used as an alternative are considered.

Time allotted for course

The course consists of 3 topics with an assessment that needs to be completed. The time allotted for each aspect is as follows:

Topic number	Title	Word count	Level	Time allotted
Topic 1	Introduction to reinsurance policies	1 604	Intermediate	15 minutes
Topic 2	Reinsurance policies	3 590	Intermediate	30 minutes
Topic 3	Alternatives to reinsurance	2 659	Intermediate	25 minutes
	Assessment			30 minutes

Total time	**1.5 hours**

Assessment and certification

After completion of the workshop the learner must complete an electronic assessment on the learning management system.

- **Form of assessment:** Multiple Choice Questions
- **Number of questions**: 10 questions
- **Duration:** 30 minutes
- **Competency mark:** 60%

Upon obtaining a competency mark of 60% the learning will receive a certificate of completion. The learner will be afforded an opportunity to re-do the workshop should a competency mark not be attained.

Course accreditation

COB Category: COB 1: Short-term Insurance Personal Lines | COB 2: Short-term Insurance Commercial Lines | COB 3: Long-term Insurance

Financial planning component: Risk Management

Advice component: Insurance (Short-term & Long-term)

Accreditation valid until: 31 August 2021

CPD Points allocated: 1.0 hours | points on completion and pass of assessment

FPI approval number: FPI20060062

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TOPIC 1 INTRODUCTION TO REINSURANCE

LEARNING OUTCOMES

After studying the topic, the learner should be able to-

- Define reinsurance and the concepts related to reinsurance.
- Describe the reasons for entering into a reinsurance policy.
- Explain fronting in the concept of reinsurance.
- Explain the dynamics of the reinsurance market.

1.1 What is reinsurance?

In a traditional insurance arrangement, the risk of loss is spread among many different policyholders, each of whom pays a premium to the insurer in exchange for the insurer's protection against some uncertain potential event. It is a business model that works whenever the sum of received premiums from all members exceeds the amount paid out on insurance claims against the policies. There are times, however, when the amount paid out in claims by the insurer exceeds the sum of money received from policyholder premiums. In such instances, it is the insurer who faces the greatest risk of loss.

Reinsurance is also known as insurance for insurers or stop-loss insurance. Reinsurance is the practice whereby insurers transfer portions of their risk portfolios to other parties by some form of contract to reduce the likelihood of paying a large obligation resulting from an insurance claim.

Just as a homeowners or motor insurance policy reduces the amount of cash a person must have on hand to pay for a new car after an accident or to rebuild a home after a hurricane, a reinsurance policy can protect an insurance company against large catastrophic losses. Reinsurance also enables an insurer to underwrite more or larger insurance policies.

It is common practice for insurers to insure part of the risk that they have underwritten with another insurer. Although any insurer may accept the risks underwritten by other insurers (inward reinsurance), most reinsurance is done by specialist reinsurers, who only transact insurance that has already been underwritten by another insurer. They do not underwrite any risks directly.

The party that diversifies its insurance portfolio is known as the ceding company or the primary insurer. The party that accepts a portion of the potential obligation in exchange for a share of the insurance premium is known as the reinsurer.

It must be noted that the reinsurance of a risk does not involve the insured at all. The reinsurance is strictly a contract between the insurer and the reinsurer. In the event of a loss the insured will claim from the insurer, who will need to pay the entire loss and then recover the reinsurer's share thereof from the reinsurer, without involving the insured.

It is not uncommon for reinsurers in turn to reinsure part of the risk with another reinsurer. This is known as retrocession and may be done on multiple occasions and will spread the risk even further across the market. For example, a R30 million excess of R20 million layer may be shared by 30 or more reinsurers. The reinsurer who sets the terms (premium and contract conditions) for the reinsurance policy is called the lead reinsurer; the other companies subscribing to the contract are called following reinsurers.

Alternatively, one reinsurer can accept the whole of the reinsurance and then retrocede it (pass it on in a further reinsurance arrangement) to other companies.

Reinsurance should not be done haphazardly, but with care, creating a reinsurance programme that supports the financial management of the insurer by retaining enough of the risk to make an adequate profit, without exposing itself to undue probability of risk. Remember that by reinsuring a risk, the insurer passes part of its premium income to the reinsurer, but also part of its exposure.

Ceding companies often choose their reinsurers with great care as they are exchanging insurance risk for credit risk. Risk managers monitor reinsurers' financial ratings (S&P, A.M. Best, etc.) and aggregated exposures regularly.

It must be noted that the terms and conditions of the original policy apply to the reinsurance policy, in what is referred to as the reinsurer following the fortunes of the original insurer. This means that it needs to accept the determination of the premium and that it will be on an equal footing as regards the risk. It also means that the reinsurer must follow the lead of the insurer in dealing with claims, although it may challenge any decision if it believes that the ceding company has not dealt in good faith.

Because of the governance effect ceding companies can have on society, reinsurers can indirectly have societal impact as well, due to reinsurer underwriting and claims philosophies imposed on those underlying carriers which affects how the ceding company offer coverage in the market. However, reinsurer governance is voluntarily accepted by ceding companies via contract to allow ceding companies the opportunity to rent reinsurer capital to expand the market share of the ceding company or limit their risk.[5]

1.2 Reasons for reinsuring

Almost all insurance companies have a reinsurance program. The ultimate goal of that program is to reduce their exposure to loss by passing part of the risk of loss to a reinsurer or a group of reinsurers.

The subsections following consider the reasons for an insurer to reinsure part of the risk accepted.

1.2.1 Risk transfer

Because an insurer must retain a minimum level of solvency against the risks it underwrites, the extent of its financial reserves will determine its ability to underwrite risks. By placing part of the business with a reinsurer an insurer will create additional capacity to write more business. Also, a smaller insurer may have some difficulty underwriting large risks, and reinsurance provides the capacity to accept this type of large business.

1.2.2 Income smoothing

Reinsurance assists in making an insurer's financial results more predictable by absorbing larger losses, thereby reducing capital needed to provide the reserves. The income smoothing arises because the losses of the ceding company are limited. The insurer will obtain greater stability in claim payouts and a limiting of indemnification costs.

1.2.3 Arbitrage

The insurance company may be motivated by arbitrage in purchasing reinsurance coverage at a lower rate than they charge the insured for the underlying risk, whatever the class of insurance.

In general, the reinsurer may be able to cover the risk at a lower premium than the insurer for the following reasons:

- The reinsurer may have some intrinsic cost advantage due to economies of scale or some other efficiency.
- Reinsurers may operate under weaker regulation than their clients. This enables them to use less capital to cover any risk, and to make fewer conservative assumptions when valuing the risk.
- Reinsurers may operate under a more favourable tax regime than their clients.
- Reinsurers will often have better access to underwriting expertise and to claims experience data, enabling them to assess the risk more accurately and reduce the need for contingency margins in pricing the risk.

- Even if the regulatory standards are the same, the reinsurer may be able to hold smaller actuarial reserves than the ceding company if it thinks the premiums charged by the ceding company are excessively conservative.
- The reinsurer may have a more diverse portfolio of assets and especially liabilities than the ceding company. This may create opportunities for hedging that the ceding company could not exploit alone. Depending on the regulations imposed on the reinsurer, this may mean they can hold fewer assets to cover the risk.
- The reinsurer may have a greater risk appetite than the ceding company.

1.2.4 Reinsurer's expertise

The insurer may want to make use of the expertise of a reinsurer, or the reinsurer's ability to set the appropriate premiums, particularly in regard to a specific (or specialized) risk where the insurer's underwriter lacks sufficient knowledge.

1.2.5 Creating a manageable and profitable portfolio of insured risks

By choosing a particular type of reinsurance method, the insurance company may be able to create a more balanced and homogeneous portfolio of insured risks. This would make its results more predictable on a net basis (i.e. allowing for the reinsurance). This is usually one of the objectives of reinsurance arrangements for the insurance companies.

1.3 Reinsurance markets

Many of the risks are so large and complex that they need to be spread across international frontiers. Accordingly, many underwriting organisations that accept predominantly domestic insurance or reinsurance accounts often participate in international reinsurance business.

There is not actually an absolutely clear-cut division between the domestic and international reinsurance markets. In certain markets only locally, established companies operate and business is almost exclusively domestic. In such markets, inward foreign reinsurance business might be restricted to the reciprocal exchange of reinsurance. At the other end of the scale is a market such as London, where the reinsurance of overseas insurers forms a substantial part of the business transacted by both local and foreign reinsurers which operate in that market.

The reinsurance market, as a whole, is made up of reinsurance buyers, sellers and intermediaries. Lloyd's underwriting agencies will often act as both buyers and sellers of reinsurance.

The reinsurance broker requires two markets, one from which to canvass business and one in which to place its business. Without these two it has no function. The broker facilitates both the acquisition of business and the placing of business, and then will continue to service the clients.

As an industry, reinsurance is less highly regulated than insurance for individual consumers because the purchasers of reinsurance, mostly primary companies that sell car, home and commercial insurance, are considered sophisticated buyers.

Using game-theoretic modeling, Professors Michael R. Powers (Temple University) and Martin Shubik (Yale University) have argued that the number of active reinsurers in a given national market should be approximately equal to the square-root of the number of primary insurers active in the same market.

TOPIC 2 REINSURANCE POLICIES

LEARNING OUTCOMES

After studying the topic, the learner should be able to-

- Describe the terms and conditions that can be attached to a reinsurance policy in terms of the following classifications:
  - Reinsurance classification based on contract.
  - Reinsurance classification based on payout proportion.
  - Reinsurance classification based on term.
  - Reinsurance classification based on definition of cover.
  - Reinsurance classification based on peril.

2.1 Introduction

There are not standard reinsurance policies. However, many reinsurance contracts do include some commonly used provisions and provisions imbued with considerable industry practice.

Therefore, most contracts provide for certain standard classificational definitions and methods. Based on the contract terms of a most reinsurance contracts we can deduce the following classifications:

- Reinsurance classification based on contract.
- Reinsurance classification based on payout proportion.
- Reinsurance classification based on term.
- Reinsurance classification based on definition of cover.
- Reinsurance classification based on peril.

A ceding company's reinsurance program can be extremely complex. The insurance structure might include ascending levels of coverage for increasingly remote events, split among a number of reinsurance companies each assuming a portion. It may also include layers of proportional and excess of loss treaties and possibly a facultative excess of loss layer at the top.

These classifications are considered in the sections following.

2.2 Reinsurance classification based on contract

An insurer can enter into a reinsurance policy with a reinsurer on a facultative or treaty basis.

2.2.1 Facultative reinsurance

Facultative reinsurance is coverage purchased by a primary insurer to cover a single risk or a block of risks held in the primary insurer's book of business. Facultative reinsurance is considered to be more of a one-off transactional deal, while treaty reinsurance is more of a long-term arrangement.

Facultative reinsurance is usually the simplest way for an insurer to obtain reinsurance protection; these policies are also the easiest to tailor to specific circumstances.

Facultative reinsurance policies are commonly memorialized in relatively brief contracts known as facultative certificates and often are used for large or unusual risks that do not fit within standard reinsurance treaties due to their exclusions. The term of a facultative certificate coincides with the term of the original policy.

Facultative reinsurance allows the reinsurance company to review individual risks and determine whether to accept or reject them. The profitability of a reinsurance company depends on how wisely it chooses its customers. In a facultative reinsurance arrangement, the ceding company and the reinsurer create a facultative certificate that indicates that the reinsurer is accepting a given risk.

Insurance companies looking to cede risk to a reinsurer may find that facultative reinsurance contracts are more expensive than treaty reinsurance. This is because treaty reinsurance covers a book of risks, which is an indicator that the relationship between the ceding company and that the reinsurer is expected to be more long-term than if the reinsurer only dealt with one-off transactions, covering single risks.

While the increased cost is a burden, a facultative reinsurance arrangement may allow the ceding company to reinsure risks it may otherwise not be able to take on.

Example

Suppose a standard insurance provider issues a policy on major commercial real estate, such as a large corporate office building. The policy is written for R35 million, meaning the original insurer faces a potential R35 million in liability if the building is severely damaged. However, the insurer believes it cannot afford to pay out more than R25 million.

So, before even agreeing to issue the policy, the insurer must look for facultative reinsurance and try the market until it gets takers for the remaining R10 million. The insurer might get pieces of the R10 million from ten different reinsurers. But without that, it cannot agree to issue the policy. Once the insurance has a reinsurance contract in place from a reinsurer to cover the R10 million and is confident it can potentially cover the full amount should a claim be submitted, the insurance policy can be submitted.

Key notes

Facultative reinsurance is coverage purchased by a primary insurer to cover a single risk or a block of risks held in the primary insurer's book of business.

Facultative reinsurance allows the reinsurance company to review individual risks and determine whether to accept or reject them and so are more focused in nature than treaty reinsurance.

By covering itself against a single or block of risks, reinsurance gives the insurer more security for its equity and solvency and more stability when unusual or major events occur.

2.2.2 Treaty reinsurance

Treaty reinsurance is a contract between the reinsurer and the insurer that provides for automatic reinsurance without the insurer having to submit each and every risk to the reinsurer. The treaty is a contract, usually arranged on a yearly basis, covering the whole class of risks. The insurer agrees to cede to the reinsurer all the risks coming within the scope of the contract and the reinsurer agrees to accept all these risks.

Reinsurance treaties are typically longer documents than facultative certificates, containing many of their own terms that are distinct from the terms of the direct insurance policies that they reinsure. However, even most reinsurance treaties are relatively short documents considering the number and variety of risks and lines of business that the treaties reinsure, and the money involved in these transactions.

Even though the reinsurer may not immediately underwrite each individual policy, it still agrees to cover all the risks in a treaty reinsurance contract. Since it is not necessary to handle cessions on a case-by-case basis, there is little paperwork and the expense factor is relatively low. Treaties provide less flexibility than facultative reinsurance, but they are much more economical to administer, and once in place, there is no danger of overlooking the risk or being caught without reinsurance.

By signing a treaty reinsurance contract, the reinsurer and the ceding company indicate the business relationship will likely be long-term. The long-term nature of the contract allows the reinsurer to plan out how to achieve a profit because it knows the type of risk it is taking on, and it is familiar with the ceding company.

2.2.3 Treaty versus facultative reinsurance

Both treaty and facultative reinsurance contracts can be written on a proportional or non-proportional basis or a combination of both.

Treaty reinsurance is a broad contract covering some portion of a particular class or class of business, such as an insurer's entire liability or property business. Reinsurance treaties automatically cover all risks, written by the insured, that fall within treaty terms, unless they specifically exclude certain exposures. While treaty reinsurance does not require review of individual risks by the reinsurer, it demands a careful review of the underwriting philosophy, practice, and historical experience of the ceding company.

Facultative reinsurance contracts are much more focused in nature. They cover individual underlying policies and are written on a policy-specific basis. A facultative contract covers a specific risk of the ceding company. A reinsurer and ceding company must agree on terms and conditions for each individual contract. Facultative reinsurance contracts often cover catastrophic or unusual risk exposures.

Because it is so specific, facultative reinsurance requires the use of substantial personnel and technical resources for underwriting activities. Facultative reinsurance is usually purchased by the insurance underwriter who underwrote the original insurance policy, whereas treaty reinsurance is typically purchased by a senior executive at the insurance company.

2.3 Reinsurance classification based on payout proportion

Reinsurance contracts may be written on a proportional or non-proportional basis. The differences are considered in the subsections following.

2.3.1 Proportional reinsurance (quota share)

In proportional reinsurance, a percentage of the risk is ceded to the reinsurer, and the reinsurer receives the same percentage of the original premium and is responsible for that same percentage of each loss.

Proportional reinsurance contracts often specify a limit in losses for which the reinsurer will be responsible. This limit is agreed to in the reinsurance contract and protects the reinsurance company from dealing with unlimited liability. If a limit is provided, the proportional reinsurance contracts are similar to a standard insurance contract, which provides coverage up to a specific amount. While this is beneficial to the reinsurer, it places the onus on the insurance company to reduce losses.

Example

ABC Insurance accepts a risk of R200 000 for which the original premium is R2 000 and reinsures 25% of the risk on a proportional basis. It cedes 25% of the risk to XYZ Reinsurance Co who will also receive 25% of the original premium, less a stated percentage of commission to compensate ABC for issuing the policy and the commission it has paid to the insurance broker/intermediary. In the event of a loss of R80 000, XYZ Reinsurance Co will pay 25% of the loss amount or R20 000.

2.3.2 Non-proportional (excess of loss) reinsurance

In non-proportional reinsurance there is no proportional ceding of the risk and no proportional sharing of the premium or the losses. The insurer pays all of the loss up to an agreed amount called the priority; the reinsurer then pays all or part of the loss that exceeds the priority up to a limit previously agreed between the two parties.

The reinsurance premium charged by the reinsurer is negotiated and will not bear any proportional relationship to the amount of loss that the reinsurer might be called upon to pay.

Example

XYZ Reinsurance Co. agrees to pay that part of the loss that exceeds ABC Insurance's priority of R50 000 up to an amount of a further R100 000.

This is traditionally expressed as R100 000 XS (excess of) R50 000.

In this case ABC Insurance would be responsible for 100% of all losses amounting to R50 000 or less. Should a loss of R80 000 occur, ABC Insurance would pay R50 000 and XYZ Reinsurance Co would contribute R30 000 (excess of loss). If the loss had been R120 000, ABC Insurance would still pay R50 000 and XYZ Reinsurance Co would then be called upon to contribute R70 000 (excess of loss).

The non-proportional reinsurance contract may indicate that the reinsurer is responsible for a percentage of losses over that threshold. This means that the ceding company and the reinsurer will share aggregate losses.

For example, a reinsurance contract with an excess of loss provision may indicate that the reinsurer is responsible for 50% of the losses over R500 000. In this case, if aggregate losses amount to R600,000, the reinsurer will be responsible for R50 000 and the ceding company will be responsible for R50 000.

2.4 Reinsurance classification based on term

Reinsurance treaties can either be written on a continuous or term basis.

A continuous contract has no predetermined end date, but generally either party can give 90-days' notice to cancel or amend the treaty for new business. A term contract has a built-in expiration date.

It is common for insurers and reinsurers to have long-term relationships that span many years.

2.5 Reinsurance classification based on definition of cover

Reinsurance contracts may define whether payment will be honoured based on policy commencement date, loss incurred date or claim date. The subsections following considers the three different bases on which this concept may be defined according.

2.5.1 Risk attaching basis

Risk attaching basis is when reinsurance is provided for claims arising from policies commencing during the effective period. The insurer knows there is coverage during the whole policy period even if claims are only discovered or made later on.

All claims from ceding company underlying policies incepting during the period of the reinsurance contract are covered even if they occur after the expiration date of the reinsurance contract. Any claims from ceding company underlying policies incepting outside the period of the reinsurance contract are not covered even if they occur during the period of the reinsurance contract.

Under risk-attaching reinsurance, all claims established during the effective period are covered regardless of whether the losses occurred outside the coverage period. No coverage is provided for claims originating outside the coverage period, even if the losses occurred while the contract was in effect.

2.5.2 Losses occurring basis

A reinsurance treaty under which all losses incurred during the effective period, irrespective of when the underlying policies incepted, are covered. Any losses occurring after the contract expiration date are not covered.

As opposed to claims-made or risks attaching contracts. Insurance coverage is provided for losses occurring in the effective period. This is the usual basis of cover for a short-term relationship between the ceding company and the reinsurer.

2.5.3 Claims-made basis

A reinsurance policy contract which covers all claims reported to the ceding company within the effective period irrespective of when the loss occurred or the policy inception date.

2.6 Reinsurance classification based on peril

Reinsurance contracts also might be classified as to whether the cover is for a single peril or multi perils. The industry differentiate in this regard between spot reinsurance and clash reinsurance.

2.6.1 Spot reinsurance

Spot reinsurance is a reinsurance contract that covers a single peril. Spot reinsurance is a used in facultative reinsurance contracts and allows a ceding company to obtain reinsurance coverage in situations in which a subsection of its total portfolio is considered riskier than the portfolio as a whole.

Definition of peril

A peril is a potential event or factor that can cause a loss, such as the possibility of a fire that could engulf a house.

Facultative reinsurance contracts allow the reinsurer to be more selective, but also allow a ceding company to obtain coverage that may be outside of the bounds of the terms and conditions of treaty reinsurance. For example, an insurance company may underwrite flood insurance policies across a wide geographic area but may have underwritten a small set of policies that carry more risks than the average policy in the portfolio. Losses associated with this small set of policies may push the ceding company's aggregate coverage over its limit.

Ceding companies can purchase spot reinsurance to cover policies using a limit other than what is granted for its portfolio as a whole. It may be purchased to cover a specific peril or location and can be as specific as covering a single underwritten insurance policy. For example, a company that underwrites automobile insurance policies may purchase spot reinsurance to cover a driver that is considered much riskier than the other drivers that it insures. By separating the risk associated with the more accident-prone driver the insurer reduces the odds that its general portfolio of policies will bump up against its coverage limit.

Insurance companies looking to cede risk to a reinsurer may find that facultative reinsurance contracts are more expensive than treaty reinsurance. This is because treaty reinsurance covers a book of risks, which is an indicator that the relationship between the ceding company and the reinsurer is expected to be more long-term than if the reinsurer only dealt with one-off transactions, covering single risks. While the increased cost is a burden, a facultative reinsurance arrangement may allow the ceding company to reinsure risks it may otherwise not be able to take on.

2.6.2 Clash reinsurance

Clash reinsurance is a type of extended reinsurance coverage which protects a primary insurer from excessive loss claims on a single event. There can be several scenarios in which clashes may result in excessive claims after a single coverable event. Clash reinsurance may apply to natural disasters or financial and corporate disasters.

Ceding companies purchase clash reinsurance for their security. Ceded reinsurers may also only take a proportional amount of the clash coverage risk, requiring a primary insurer to deal with several ceded reinsurers in order to get the coverage they desire. Clash reinsurance coverage reduces the maximum potential pay-out for an insurer if a single event leads to claims in excess of a specified level.

There can be two distinctly different types of clash reinsurance scenarios. Commonly clash reinsurance will involve multiple claims of the same kind from a single event. However, clash reinsurance can also be sought when a primary insurer agrees to insure a client from multiple angles associated with a single event.

A ceding company may seek out clash coverage from a reinsurer if one single coverable event could result in two or more claims to the ceding companies from multiple insured policyholders. For example, a ceding company may use clash reinsurance when approving multiple property and casualty policies for multiple policyholders against hurricane damage in a geographic area where hurricanes are likely.

Other catastrophic events where multiple claims might occur for an insurer from multiple policyholders could also include flooding, fire, or earthquake coverage. If a geographic area is at a high risk of any particular natural disaster under coverage, and the insurer approves multiple policyholders in that area, then clash reinsurance to help cover claims over a specified threshold could be a good risk management strategy.

Beyond just multiple claims from multiple policy holders, clash reinsurance may also involve scenarios in which a single policyholder can make multiple claims on a single event which may lead to an excessively high pay-out from a ceding company. Situations like this might involve coverage for executive directors when both director and officer compensation clauses as well as errors and emissions compensation clauses are both in force. If a single individual can reap the benefits of multiple claims from a single event and this is in effect for multiple parties under an insured umbrella then the risks are very high for a ceding company and thus the need for clash reinsurance also becomes higher.

Ceding companies can more accurately target maximum liabilities while also reaping the greatest profits from policy premiums when they use clash reinsurance. With clash reinsurance, the insurer pays a small premium to a reinsurance company for the assurance that liabilities will not exceed a target level and become impossible to repay at all or repay with any profits. These efforts help to prevent unbearable losses or even bankruptcy, specifically when massive calamity occurs.

2.7 Other terms

Some terms attached to a reinsurance policy may have an effect of a discount or a loading on the premium. Such terms may include the following.

- **Mandator co-reinsurance:** Reinsurers may sometimes include a requirement that the ceding company retains a proportion of the reinsurance layer themselves by way of co-reinsurance (co-ri) which is net and unreinsured. The ceding company will not be permitted to reinsure out this co-ri by any other mechanism.
- **Reinstatement premium:** A reinstatement premium may be charged for reinstating the cover following a reinsurance loss payment. For example, one reinstatement means that following exhaustion of the reinsurance limit you can reinstate one additional limit. A R5 million limit with two reinstatements means that the policy provides cover in three lots of R5 million. In other words, the aggregate cover is R15 million, but the ceding company may pay extra premium after the first and second limits are exhausted.
- **Profit commissions:** Profit commission are essentially when the reinsurer returns a portion of the ceded premium to the ceding company in the event of a favourable loss experience.

2.8 Fronting

Sometimes primary insurance companies wish to offer insurance in jurisdictions where they are not licensed, or where it considers that local regulations are too onerous. For example, an insurer may wish to offer an insurance programme to a multinational company, to cover property and liability risks in many countries around the world.

In such situations, the insurance company may find a local insurance company which is authorised in the relevant country, arrange for the local insurer to issue an insurance policy covering the risks in that country, and enter into a reinsurance contract with the local insurer to transfer the risks to itself. In the event of a loss, the policyholder would claim against the local ceding company under the local insurance policy, the local ceding company would pay the claim and would claim reimbursement under the reinsurance contract. Such an arrangement is called fronting.

Fronting is also sometimes used where an insurance buyer requires its insurers to have a certain financial strength rating and the prospective insurer does not satisfy that requirement. The prospective insurer may be able to persuade another insurer, with the requisite credit rating, to provide the coverage to the insurance buyer, and to take out reinsurance in respect of the risk.

An insurer which acts as a fronting insurer receives a fronting fee for this service to cover administration and the potential default of the reinsurer. The fronting insurer is taking a risk in such transactions because it has an obligation to pay its insurance claims even if the reinsurer becomes insolvent and fails to reimburse the claims.

2.9 Pricing of reinsurance policies

Reinsurance policies are based on the principal that the premium must equal the expected losses plus any loading or minus any discounts.

The expected losses can be calculated based on the following two rating techniques:

- **Experience rating:** The experience rating technique uses contract specific losses and exposure to derive expected losses to contract. This technique covers a wide range of methodologies but includes the basic burning cost method or the stochastic frequency also known as the severity approach.
- **Exposure rating:** The exposure rating technique uses the reinsurance exposures with industry data such as loss ratio and severity patterns to derive expected losses to contract.

Much has been written on risk loads for reinsurers, and there are a number of approaches in practical use. These range from simple measures based on standard deviations (or variance or CoV) to more complex DFA based measures such as a target return on risk-based capital.

TOPIC 3 ALTERNATIVES TO REINSURANCE

LEARNING OUTCOMES

After studying the topic, the learner should be able to-

- Explain the alternatives from reinsurance policies available to insurance companies.

3.1 Introduction

The reinsurance business is evolving. Traditionally, reinsurance transactions were between two insurance entities: the ceding company that sold the original insurance policies and the reinsurer. Most still are. Ceding company and reinsurers can share both the premiums and losses, or reinsurers may assume the ceding company's losses above a certain monetary limit in return for a fee.

Insurers may use other methods to mitigate risk besides traditional insurance policies including co-insurance and insurance pools. However, risks of various kinds, particularly of natural disasters, are now being sold by insurers and reinsurers to institutional investors in the form of catastrophe bonds and other alternative risk-spreading mechanisms. Increasingly, new products reflect a gradual blending of reinsurance and investment banking.

The sections following consider other structures, products and hedging instruments as an alternative to reinsurance which may be included in an insurer's risk management methodologies.

3.2 Co-insurance

Insurance can involve a risk being underwritten by one or more insurers. Where multiple insurers share proportionally in a risk, each would take a share of diverse risk and a similar share of the premium. If a loss occurs the insured must recover a similar share of the loss from each of those insurers. This process is known as co-insurance. It is customary for the co-insurers to allow the company with the largest share to determine the rating and assume responsibility for the administration of the insurance.

Co-insurance differs from traditional reinsurance in that the insured must personally recover the losses from each of the insurers. This is contrary to the usual practice where the insured is afforded full recovery of the loss from the primary insurer.

3.3 Insurance pools

Even though insurance deals with risks, on occasion a proposition is so large or so hazardous that no single underwriter is prepared to, or is capable of, accepting a meaningful proportion of the risk. A traditional response from the insurance industry is then to form a pool. A number of underwriting organisations form a single collective entity (a pool) to underwrite certain types of risk. Each company is liable for its own share of the pool, which might deal with, for example, such hazardous covers as atomic risks.

The principal of an insurance or reinsurance pool is that all the members put their premiums for a particular risk into a common fund. They then share their aggregate claims arising either in the same proportion as the premiums or in some other prearranged manner. Any profits, losses or expenses are shared in the same way.

There are a number of different pool structures. The main ones are as follow:

- **Market pools:** A market pool would involve the participation of the majority of insurance companies in a country. It is a useful system for underwriting large or hazardous risks such as nuclear installations. Normally any member company can introduce business to the pool. The risks are divided, and the rates are agreed by a committee of full members, according to members' participation in the pool. In view of the danger of accumulation, reinsurance is often arranged for the whole pool exposure on a collective basis. Often the individual members are prohibited from reinsuring their own net exposures. They have to write an absolute net line to avoid accumulation dangers.

- **Government reinsurance pools:** Pools have been created in certain countries or regions to reinsure the underlying business of that country or region. The idea is that by keeping the reinsurance in the area, the territory's premium income will be maintained in the area and not exported to the international reinsurance market. In many areas it is compulsory for all underwriters in the territory to reinsure a portion of their account with the government pool. In some cases, the ceding companies are also shareholders, and receive a share of the profits of the pool in return.

- **Underwriting pools:** Smaller developing companies that wish to enter a new market, class or type of business, may have neither the expertise nor the necessary capacity to establish a sound foothold. They may, therefore, form a pool represented by an experienced underwriter in the chosen field or development, with sufficient collective capacity to accept competitive lines of business. There are a number of such pools in existence around the world to underwrite international reinsurance business.

3.4 Catastrophe bonds

A catastrophe bond is a specialized security that increases insurers' ability to provide insurance protection by transferring the risk to bond investors. Commercial banks and other lenders have been securitizing mortgages for years, freeing up capital to expand their mortgage business.

Insurers and reinsurers issue catastrophe bonds to the securities market through an issuer known as a special purpose reinsurance vehicle (SPRV) set up specifically for this purpose. These bonds have complicated structures and are typically created offshore, where tax and regulatory treatment may be more favorable. SPRVs collect the premium from the insurance or reinsurance company and the principal from investors and hold them in a trust in the form of highly rated assets, using the investment income to pay interest on the principal.

Catastrophe bonds pay high interest rates but if the trigger event occurs, investors lose the interest and sometimes the principal, depending on the structure of the bond, both of which may be used to cover the insurer's disaster losses. Bonds may be issued for a one-year term or multiple years, often three.

The catastrophe bond market, which was largely pioneered by reinsurers, has begun to change. In 2009, for the first time, primary insurance companies were sponsors of the majority of bond issues. Industry observers say primary companies are increasingly integrating catastrophe bonds into their core reinsurance programs as a way to diversify and increase flexibility. Whereas traditional reinsurance is mostly purchased on an annual basis, catastrophe bonds generally provide multiyear coverage and may be structured in tranches that mature in successive years.

An insurance company's willingness to offer disaster coverage is often determined by the availability of reinsurance. When catastrophe bonds were first issued after Hurricane Andrew, they were expected to gain industrywide acceptance as an alternative to traditional catastrophe reinsurance, which was then in short supply, but they still represent a small, albeit growing, portion of the worldwide catastrophe reinsurance market.

The field has gradually evolved to the point where some investors and insurance company issuers are beginning to feel comfortable with the concept, with some coming back to the capital markets each year. In addition to the high interest rates catastrophe bonds pay, their attraction to investors is that they diversify investment portfolio risk, thus reducing the volatility of returns. The returns on most other securities are tied to economic activity rather than natural disasters.

3.5 Industry loss warranty contracts

One lesser-known alternative is the industry loss warranty contract (ILW). Unlike traditional reinsurance, where the reinsurer pays a portion of the primary company's losses according to an agreed upon formula, the industry loss warranty contract is triggered by an agreed-upon industry loss. The contract warrants that the reinsurer will pay up to R100 million toward the primary insurer's losses if the industry suffers a predetermined loss amount, for example R5 billion or more.

3.6 Sidecar

Another recent innovation is the sidecar. These are relatively simple contracts that allow a reinsurer to transfer to another reinsurer or group of investors, such as hedge funds, a limited and specific risk, such as the risk of an earthquake or hurricane in a given geographic area over a specific period of time.

Side-car deals are much smaller and less complex than catastrophe bonds and are usually privately placed rather than tradable securities. In sidecars, investors share in the profit or loss the business produces along with the reinsurer.

While a catastrophe bond could be considered excess of loss reinsurance, assuming the higher layers of loss for an infrequent but potentially highly destructive event, sidecars are similar to reinsurance treaties where the reinsurer and primary insurer share in the results.

3.7 Exchange of risk

Another alternative is the exchange of risk where individual companies in different parts of the world swap a certain amount of losses. Payment is triggered by the occurrence of an agreed upon event at a certain level of magnitude.

3.8 Disaster recovery bonds

Disaster recovery bonds serve much the same purpose as a business income insurance policy, helping the policyholder get back on track after a catastrophic event.

In developing countries insurance penetration is low, meaning that few individuals and businesses have insurance, so the burden of recovering from a disaster falls almost entirely on the government. Traditionally, developing countries have relied on post-disaster funding to finance recovery efforts, including donations from developed countries, international emergency aid and humanitarian relief organizations. A faster and more reliable way to fund the recovery is pre-financing in the form of reinsurance, catastrophe bonds or other alternative risk transfer mechanisms.

One example of prefunding is the Caribbean Catastrophe Risk Insurance Facility, the first regional insurance fund. CCRIF provides hurricane and earthquake catastrophe coverage to its member nations, so that in the aftermath of a disaster they can quickly fund immediate recovery needs and continue providing essential services.

In 2004 hurricanes severely damaged the economy of several small Caribbean islands, causing losses in excess of $4 billion. This prompted Caribbean governments to request the help of the World Bank in facilitating access to catastrophe insurance. The CCRIF started operations in June 2007, after two years of planning.

The CCRIF acts as a mutual insurance company, allowing member nations to combine their risks into a diversified portfolio and purchase reinsurance or other risk transfer products on the international financial markets at a saving of up to 50% over what it would cost each country if they purchased catastrophe protection individually. In addition, since a hurricane or earthquake only affects one to three countries in the Caribbean on average in any given year, each country contributes less to the reserve pool than would be required if each had its own reserves.

The CCRIF was initially capitalized by its members with help from donor partners — developed countries, the World Bank, and the Caribbean Development Bank. Its members pay premiums based on their probable use of the pool's funds. As countries raise building standards to provide better protection against disasters, premiums will decrease.

Because the CCRIF uses what has become known as parametric insurance to calculate claim payments, claims are paid quickly. Under a parametric system, claim payments are triggered by the occurrence of a specific event that can be objectively verified, such as a hurricane reaching a certain wind speed or an earthquake reaching a certain ground shaking threshold, rather than by actual losses measured by an adjuster, a process that can take months to complete.

Pay-out amounts are derived from models that estimate the financial impact of the disaster. As a form of deductible that encourages risk mitigation, participating governments are only allowed to purchase coverage for up to 20 percent of their estimated losses, an amount believed to be sufficient to cover initial needs.